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Кафедра лингвистических дисциплин и межкультурных коммуникаций

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«20» 12 2024 г.

ЭЛЕКТРОННЫЙ УЧЕБНО-МЕТОДИЧЕСКИЙ КОМПЛЕКС
по учебной дисциплине
ИНОСТРАННЫЙ ЯЗЫК
(английский язык, французский язык)

для специальностей:
6-05-0713-02 Электронные системы и технологии (профилизация – Компоненты киберфизических систем)
6-05-0611-05 Компьютерная инженерия (профилизация – Вычислительные машины, системы и сети)
6-05-0611-03 Искусственный интеллект
6-05-0612-03 Системы управления информацией
6-05-0611-05 Компьютерная инженерия (профилизация – Программируемые мобильные системы)
6-05-0612-01 Программная инженерия

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Рекомендуемая литература. Английский язык
Рекомендуемая литература. Французский язык

ПОЯСНИТЕЛЬНАЯ ЗАПИСКА

к электронному учебно-методическому комплексу по учебной дисциплине «Иностранный язык (английский язык, французский язык)» для специальностей:

6-05-0713-02 Электронные системы и технологии (профилизация – Компоненты киберфизических систем),
6-05-0611-05 Компьютерная инженерия (профилизация – Вычислительные машины, системы и сети),
6-05-0611-03 Искусственный интеллект,
6-05-0612-03 Системы управления информацией,
6-05-0611-05 Компьютерная инженерия (профилизация – Программируемые мобильные системы),
6-05-0612-01 Программная инженерия

Актуальность изучения дисциплины обусловлена необходимостью повышения исходного уровня владения иностранным языком и формирование у обучающихся иноязычных компетенций, позволяющих им решать социально-коммуникативные задачи в профессиональной сфере.

Цель и задачи дисциплины

Цель курса «Иностранный язык» (базовый курс) состоит в формировании у студентов коммуникативной компетенции, т.е. таких языковых и речевых навыков и умений, которые позволяют использовать иностранный язык как в будущей профессионально-деловой деятельности, так и для дальнейшего образования и самообразования во всех основных видах речевой деятельности, а именно: говорения, чтения, аудирования и письма.

Основными задачами изучения дисциплины являются:

– унификация полученных ранее умений и навыков чтения текстов на расширенном языковом материале;

– формирование умений и навыков чтения и понимания текстов по специальности в ситуациях поиска смысловой информации;

– владение профессиональной лексикой;

– знакомство с историей и культурой страны изучаемого языка.

В результате изучения дисциплины «Иностранный язык» студент должен:

знать:

– особенности системы изучаемого иностранного языка в его фонетическом, лексическом и грамматическом аспектах;

– социокультурные нормы бытового и делового общения в современном поликультурном мире;

– историю и культуру страны изучаемого языка;

– основные формы культурной коммуникации;

уметь:

– вести общение профессионального и социокультурного характера на иностранном языке, сочетая диалогические и монологические формы речи;

– читать литературу на иностранном языке по профилю обучения (изучающее, ознакомительное, просмотровое и поисковое чтение);

– использовать иностранный язык в качестве инструмента профессиональной деятельности: перевод, реферирование и аннотирование профессионально ориентированных и научных текстов, выступление с публичной речью;

– использовать стилистические нормы иностранного языка в соответствии с ситуацией профессиональных и деловых взаимоотношений;

владеть:

– навыками чтения и перевода со словарем иностранной литературы по правилам речевого этикета;

– рациональным и эффективным языковым поведением в ситуациях межкультурной коммуникации.

Краткое описание электронного учебно-методического комплекса.

Настоящий ЭУМК предназначен для студентов следующих специальностей: 6-05-0713-02 «Электронные системы и технологии» (профилизация – Компоненты киберфизических систем), 6-05-0611-05 «Компьютерная инженерия» (профилизация – Вычислительные машины, системы и сети), 6-05-0611-03 «Искусственный интеллект», 6-05-0612-03 «Системы управления информацией», 6-05-0611-05 «Компьютерная инженерия» (профилизация – Программируемые мобильные системы), 6-05-0612-01 «Программная инженерия».

ЭУМК разработан с учётом основных положений концепции обучения иностранным языкам в системе непрерывного образования Республики Беларусь, концепции современного языкового образования, а также в соответствии со следующими нормативными документами:

- Кодекс Республики Беларусь «Об образовании» от 13.01.2011г. № 243-З (с дополнениями и изменениями).
- Положение об учебно-методическом комплексе на уровне высшего образования, утвержденное постановлением Министерства образования Республики Беларусь №427 от 08.11.2022 г. «Об утверждении положений об учебно-методических комплексах».
- Образовательные стандарты ОСВО 6-05-0713-02-2023 Электронные системы и технологии, ОСВО 6-05-0611-05 Компьютерная инженерия, ОСВО 6-05-0611-03 Искусственный интеллект, ОСВО 6-05-0612-03 Системы управления информацией, ОСВО 6-05-0612-01 Программная инженерия, утвержденные постановлением Министерства образования Республики Беларусь № 246 от 10.08.2023 (с учетом изменений, внесенных в постановление Министерства образования Республики Беларусь № 355 от 22.11.2023);
- Учебными программами по дисциплине «Иностранный язык (английский)», утвержденной 28.06.2024, регистрационный номер № УД-24-1-011/уч.; «Иностранный язык (французский)», утвержденной 28.06.2024, регистрационный номер № УД-24-1-012/уч.

Цели ЭУМК:

– обеспечение качественного методического сопровождения процесса обучения;

– организация эффективной самостоятельной работы студентов.

Содержание и объем ЭУМК полностью соответствуют образовательному стандарту высшего образования специальностей 6-05-0713-02 «Электронные системы и технологии» (профилизация – Компоненты киберфизических систем), 6-05-0611-05 «Компьютерная инженерия» (профилизация – Вычислительные машины, системы и сети), 6-05-0611-03 «Искусственный интеллект», 6-05-0612-03 «Системы управления информацией», 6-05-0611-05 «Компьютерная инженерия» (профилизация – Программируемые мобильные системы), 6-05-0612-01 «Программная инженерия», а также учебно-программной документации

образовательных программ высшего образования. Материал представлен на требуемом методическом уровне и адаптирован к современным образовательным технологиям.

УМК разработан в электронном виде.

Структура учебно-методического комплекса по дисциплине «Иностранный язык»:

Теоретический раздел ЭУМК представлен методическими рекомендациями по изучению дисциплины и по организации самостоятельной работы студентов.

Практический раздел ЭУМК содержит учебные материалы для аудиторной и самостоятельной работы студентов.

Раздел контроля знаний ЭУМК содержит материалы для текущей аттестации работы студентов.

Вспомогательный раздел УМК содержит учебную программу.

ТЕОРЕТИЧЕСКИЙ РАЗДЕЛ

Методические рекомендации по изучению дисциплины «Иностранный язык»

Целью практического курса «Иностранный язык» является формирование и развитие профессиональной коммуникативной компетенции, позволяющей осуществлять коммуникативную деятельность на иностранном языке в профессиональной сфере общения и развитие лингвистической компетенции, включающей в себя знание и владение стандартными лексическими средствами и грамматическими структурами, присущими языку сферы профессионального общения в области информационных технологий.

Учебный план дисциплины «Иностранный язык» предусматривает практические занятия в аудитории (под руководством преподавателя) на протяжении 1 и 2 семестров на 1 курсе.

В соответствии с Программой по иностранному языку, студент должен уметь:

- вести общение социокультурного и профессионального характера;
- читать и переводить литературу по специальности;
- письменно выражать свои коммуникативные намерения в сферах, предусмотренных рабочей программой;
- понимать аутентичную иноязычную речь на слух.

Для успешного овладения иностранным языком студентам предлагается примерный алгоритм работы над учебным материалом.

Последовательность действий студента по овладению лексическими навыками

I этап. Ознакомление с новыми лексическими единицами.

Ознакомьтесь с новыми лексическими единицами (ЛЕ), предъявленными на слух (в речевых образцах, в аудиотексте) или в письменном контексте (в учебнике).

Определите значение лексических единиц:

а) на слух:

– определите по звучанию слова, с какими выученными ранее ЛЕ оно соотносится по общности значения;

– раскройте значение слова по его дефиниции;

– объясните на родном языке разницу в значении синонимов, употребленных в двух предложениях, и т.д.;

б) визуально, по формальному признаку:

– прочитайте слова и скажите, от каких слов они образованы;

– определите по формальным признакам, какой частью речи являются выделенные слова;

– разложите сложное слово на компоненты и т.д.;

в) визуально, по семантическому признаку:

– найдите синонимы, антонимы ряду данных слов;

– найдите в тексте слова, относящиеся к определенной теме и т.д.

II этап. Тренировка (автоматизация) лексических навыков.

Воспроизведите ЛЕ изолированно и в связном контексте:

– повторите за диктором (преподавателем) слово, предложение, обращая внимание на его звучание (написание);

– запишите слова, заполнив пропущенные буквы;

– прочитайте пары слов, обращая внимание на различие в звучании.

Выполните следующие упражнения с новыми лексическими единицами:

– составьте из приведенных компонентов сложное слово по образцу и запишите его;

– подберите прилагательные к данным существительным, и наоборот;

– перефразируйте следующие предложения …;

– сократите предложения, опустив определения;

– расширьте следующие предложения … по образцу, употребив новые слова;

– прочитайте, определите по словарю подходящее значение подчеркнутых слов;

– прочитайте пары предложений. Опираясь на контекст, догадайтесь о значении подчеркнутых слов. Проверьте свое предположение по словарю и т.д.

III этап. Активизация лексических единиц в чтении, аудировании, говорении и письме.

Последовательность действий студента по овладению грамматическими навыками.

I этап. Ознакомление с новым грамматическим явлением.

Определите значение и форму нового грамматического явления на основе анализа нескольких контекстов:

– найдите в тексте предложения с новым грамматическим явлением;

– прочитайте пары предложений и установите, в чем их различие;

– прочитайте предложения и определите значение (функцию) данного грамматического явления и т.д.;

– на основе таблиц (правила-инструкции) определите формальные признаки нового грамматического явления;

– переведите предложения на родной язык;

– переведите все возможные способы оформления данной мысли на родной язык и т.д.

II этап. Тренировка грамматического явления.

– найдите в тексте изучаемую конструкцию;

– объясните употребление данной грамматической формы;

– составьте предложения, используя подстановочную таблицу;

– сократите предложения;

– измените структуру данного предложения, заменив …;

– перефразируйте предложения;

– выразите ту же мысль другими языковыми средствами.

III этап. Применение грамматических явлений в чтении, аудировании, говорении, письме.

Последовательность действий студента по развитию умений говорения

Упражнения и методические приемы для обучения говорению (монологической, диалогической речи) на базе текста:

Монологическая речь.

– прочтите текст и ответьте на вопросы к тексту;

– разбейте текст на смысловые части и озаглавьте их;

– расположите пункты плана (предложения из текста), данные на доске в соответствии с логикой изложения материала в тексте;

– просмотрите текст и выберите ключевые слова для передачи его основного содержания;

– выпишите из текста предложения, которые передают основное содержание текста;

– просмотрите план и подберите материал из текста, раскрывающий пункты плана;

– выберите из текста ключевые слова, предложения с ключевыми словами к каждому пункту плана;

– расширьте данное на доске высказывание, используя текст;

– составьте письменный пересказ текста (7-8 предложений), предающих основное содержание текста. Добавьте к ним фразы речевого оформления высказывания;

– составьте сжатый пересказ основного содержания текста своими словами;

– перескажите изложенную в тексте информацию, добавляя известную Вам ранее.

Диалогическая речь.

– прослушайте диалог, используя визуальную опору;

– прослушайте отдельные реплики для отработки правильного произношения и интонации и прочтите диалог (по ролям);

– раскройте скобки (заполните пропуски) в репликах диалога;

– воспроизведите в ролях весь диалог;

– составьте диалог самостоятельно по аналогии с образцом.

Последовательность действий студента по развитию навыков и умений чтения

Предтекстовый этап.

– заполните пропуски в предложении одним из ряда предложенных слов;

– просмотрите текст и скажите, сколько слов общего корня в нем содержится;

– выделите смысловой глагол в составном сказуемом и дайте его перевод;

– выполните частичный перевод предложение на родной язык;

– определите по формальным признакам, какой частью речи являются выделенные слова;

– прочтите абзац (текст) и выпишите все глаголы с предлогами, обозначающими движение (время действия или место действия);

– найдите в тексте и выпишите существительные, образованные от глаголов, (прилагательных …);

– выберите из приведенных предложений те, которые содержат страдательный залог (придаточные предложения времени, сложное дополнение и т.д.).

Текстовый этап.

– прочтите текст, разделите его на смысловые части и найдите по одному предложению, передающему основную мысль каждой части;

– выберите правильный ответ из нескольких данных;

– составьте из абзацев связный текст;

– составьте перечень основных проблем, затронутых в тексте;

– прочтите текст и передайте его основную идею несколькими предложениями.

Послетекстовый этап.

– опираясь на содержание прочитанного текста, закончите предложения, используя предлагаемые варианты;

– используя материал текста, ответьте на вопросы;

– расположите предложения в той последовательности, в которой они даны в тексте;

– подготовьте реферат текста, используя ответы на приведенные ниже вопросы;

– подготовьте резюме (аннотацию текста);

– используя факты из текста, расскажите о … .

Последовательность действий студента по обучению письму и письменной речи

– найдите в тексте незнакомые Вам слова, выпишите их и найдите в словаре соответствующий перевод;

– сгруппируйте все слова по правилу чтения (типу звуко-буквенного соответствия);

– сгруппируйте иноязычные слова по общему корню и запишите их;

– сгруппируйте все слова из списка по частям речи;

– подчеркните в написанных словах корень (суффиксы, префиксы);

– ответьте в письменной форме на вопросы с опорой на текст;

– выпишите из текста 7-10 наиболее значимых с точки зрения содержания предложений;

– составьте аннотацию текста;

– подготовьте план-конспект по теме (содержанию) текста или проблеме, освещаемой в тексте.

Методические рекомендации по организации самостоятельной работы студентов по иностранным языкам

Одной из основных задач преподавателя является воспитание определённой культуры самостоятельной работы и её рациональное направление; формирование методики студентов в развитии разнообразных речевых умений и при овладении языковым материалом.

Достижение целей обучения иностранному языку в вузе определяется содержанием, которым должны овладеть студенты, и технологией обучения (принципами, методами, средствами и организацией обучения). Само учение студентов осуществляется как под руководством преподавателя, так и в ходе самостоятельной работы.

Задача обучающей стороны – отобрать содержание обучения, обеспечить рациональную организацию самообучения, сформировать самометодику студентов (т.е. осознание владения приёмами учебного труда).

Для развития самостоятельной деятельности при изучении иностранного языка необходимо, во-первых, осознание цели выполняемой деятельности. Осознание цели задания (упражнения) есть не что иное, как применение принципа сознательности в организации самостоятельной работы.

Во-вторых, требуется знание самопроцедуры выполнения задания. Преподавателю необходимо вооружить студентов рациональными приёмами учебной деятельности, исходя из характера самой деятельности и опыта в иностранном языке.

В-третьих, необходимо умение пользоваться для выполнения задания соответствующими средствами обучения.

В-четвёртых, необходимо умение видеть опоры в материале заданий, облегчающих преодоление трудностей в ходе самостоятельной работы; в этом случае одинаково важно научиться пользоваться готовыми (объективными) опорами и создавать свои (субъективные).

В-пятых, важно предусмотреть адекватные дидактические условия для успешного самостоятельного выполнения заданий.

Сюда же следует отнести и выбор организационных форм для выполнения конкретного вида самостоятельных заданий. Домашняя работа, естественно, принимает индивидуальную форму, которая должна быть обеспечена и подготовлена под руководством преподавателя.

Приобщение обучаемых к систематической самостоятельной работе – одна из насущных воспитательных задач преподавателя иностранного языка.

Таким образом, для организации самостоятельной работы студентов по иностранному языку требуется: осознание ими цели заданий, знание процедуры выполнения их, умение пользоваться средствами обучения, умение применять опоры и создавать их при подготовке заданий, учёт соответствующих дидактических условий.

В педагогике принято выделять следующие уровни самостоятельной работы: воспроизводящий, полутворческий и творческий.

Воспроизводящий уровень лежит в основе других уровней. В полутворческом уровне осуществляется перенос приобретенных знаний, навыков и умений в чтение слов, словосочетаний, предложений и текстов. и, наконец, формирование высказываний.

Творческий уровень самостоятельной работы связан с формированием навыков и умений осуществлять поиск при решении более сложных коммуникативных задач как в устной речи, так и при чтении. Источником информации, материальной основой самостоятельной работы является учебник, содержащий грамматический и лингвострановедческий справочники, двуязычный словарь, тексты учебника. Материал в справочниках и словарях отобран в соответствии с программой. Все объяснения сделаны в доступной форме, адресатом их является студент, который и сможет воспользоваться ими в самостоятельной работе. Чтобы студенты оптимально воспользовались источниками информации, необходим методический инструментарий, позволяющий осуществить руководство самостоятельной работой студентов. Это такие дидактические средства, как задания, памятки, опоры и ключи.

Задания позволяют студентам сосредоточиться на предмете усвоения, памятки предлагают рациональные приемы овладения иностранным языком, опора управляет самостоятельной работой. Развитие методики студентов при чтении про себя, обуславливающего культуру иноязычного чтения, предполагает следующее:

1. Внимательное прочтение заданий – дотекстовых и послетекстовых, которые, как известно, сужают зону поиска, определяют тему, иногда время и место действия, облегчая тем самым понимание при чтении.

2. Использование заголовков, имен собственных, содержащихся в тексте, а также невербальных сигнальных средств, таких как, иллюстрации, схемы, таблицы для прогнозирования содержания.

3. Чтение текста или его законченного фрагмента полностью, а не по предложениям, тем более не по словам. Почти в каждом тексте имеется определенная избыточность, которая позволяет составить общее представление о содержании вопреки языковым трудностям, а иногда и прояснить их.

4. Использование имеющихся знаний, полученных по другим предметам, а также знаний, добытых по другим каналам, как то: газет, журналов, книг, радио, телевидения, Интернета.

5. Осуществление контекстуальной и языковой догадки.

6. Оперативное использование двуязычного словаря и другой справочной литературы.

7. Определение стратегии чтения в зависимости от функционального стиля текста (социально-политического, научно-популярного и художественного) и от коммуникативного вида чтения (изучающего, ознакомительного или просмотрового).

Развитию методики самостоятельного чтения значительно помогут следующие памятки.

ПАМЯТКА 1 (Общая стратегия чтения)

1. Вдумайтесь в заголовок, возможно, он вам подскажет, о чем текст.

2. Произведите “разведку” вокруг текста: выясните, в частности, кто его написал и возможные сведения об авторе из введения или лингвострановедческого справочника; рассмотрите иллюстрации, вчитайтесь в пред- и послетекстовые задания – все это поможет предвосхитить содержание.

3. Прочитайте бегло весь текст или его законченный отрывок, обходя трудности, чтобы иметь общее представление о его содержании: это поможет вам в последующем при чтении преодолеть трудности.

ПАМЯТКА 2 (Тактика чтения)

1. При встрече с незнакомым словом не останавливайтесь: дальнейшее изложение может внести ясность в понимание его значения, при этом старайтесь использовать свои знания фактов, событий, о которых упоминается в тексте.

2. Постарайтесь догадаться о значении слова; языковая догадка возможна, если данное незнакомое слово напоминает по звучанию или графическому образу слово родного языка; состоит из знакомых словообразовательных элементов; относится к интернациональным словам; включено в словосочетание, элементы которого вам известны.

3. Слова, значения которых вам не удалось установить, найдите в словаре. Для этого необходимо: знать условные обозначения, принятые в словаре, в частности, тот факт, что место слова определяется не только первой буквой алфавита, но и последующими; уметь придать слову исходную словарную форму, отталкиваясь от его производной контекстной формы; выбрать нужное значение из имеющихся, проверить его соответствие тексту.

ПАМЯТКА 3 (Для самостоятельной подготовки монологического высказывания)

1. Представьте, о чем вы будете говорить, и составьте план своего высказывания.

2. Прочитайте текст на нужную вам тему.

3. Выделите из текста материал, необходимый для вашего высказывания, соотнесите его с пунктами плана.

4. Вспомните, какой еще языковой материал вы сможете использовать в своем высказывании, и припишите его.

5. Сделайте преобразования, необходимые для преобразования вашего замысла.

6. Прорепетируйте свое высказывание, пользуясь построенным вами планом.

ПАМЯТКА 4 (Для самостоятельной подготовки устного высказывания на основе опор)

1. Представьте, что вы хотите сказать по данной теме/ситуации и спланируйте свое высказывание.

2. Подберите к каждому пункту плана соответствующие языковые средства: слова, словосочетания, предложения из данных в учебнике и по памяти.

3. Скомбинируйте этот материал для передачи своего замысла (помните при этом о времени, лице, числе и т.д.)

4. Представьте себе конкретных слушателей и, обращаясь к ним, произнесите свое высказывание.

ПАМЯТКА 5 (Для письменного выполнения домашних лексико-грамматических упражнений)

1. Прочитайте задание и определите, в чем его суть.

2. Если задание предполагает подстановку или ответ на вопрос, припомните (выясните, уточните) значение требуемого языкового явления.

3. Установите его грамматические формы, обратите внимание на порядок слов.

4. Письменно вставьте данное языковое явление в предложение, придав ему сначала соответствующую производную форму.

5. Прочитайте полученное предложение.

6. Произнесите его без опоры на запись.

ПАМЯТКА 6 (Для письменной компрессии текста в ходе самостоятельной работы)

После того как был прочитан текст и в целом понят, можно приступить к составлению "своего" текста. на его основе.

1. Читайте текст по абзацам, выделяя в каждом из них предложение, в котором заключена мысль абзаца, и выпишите его.

2. Проведите сокращения внутри выделенных предложений за счет второстепенных слов, т.е. слов и словосочетаний, уточняющих основное.

3. Соедините полученные предложения в единый текст, предусмотрев при этом соответствующие способы связи: личные, указательные и притяжательные местоимения, союзы и союзные слова и т.д.

4. Придайте записи форму в зависимости от того, пишешь ли ты реферат, аннотацию, рецензию или резюме.

СОСТАВЛЕНИЕ АННОТАЦИИ

Аннотация специальной статьи или книги - это краткая характеристика оригинала, излагающая его содержание в виде перечня основных вопросов и иногда дающая критическую оценку. Объём аннотации обычно не превышает 500 печатных знаков. При составлении аннотации на статью или книгу на иностранном языке необходимо проделать следующие операции:

а) выписать название статьи (книги), фамилию и инициалы автора на иностранном языке;

б) дать перевод названия статьи или книги;

в) дать выходные данные журнала на иностранном языке: номер, год издания, том, серию выпуска, количество страниц аннотируемой статьи, количество рисунков, таблиц, библиографических названий и т.д.;

г) дать очень краткое изложение содержания статьи.

РАБОТА СО СЛОВАРЕМ

Словарь, как правило, состоит из заглавных слов и словарных статей.

Заглавное слово - это выделенное жирным шрифтом слов, значение которого объяснено и часто иллюстрировано примерами. Все заглавные слова расположены в алфавитном порядке и имеют указание, какой частью речи они являются.

СЛОВАРНАЯ СТАТЬЯ - это мини-текст, содержащий определенные сведения о заглавном слове. Объём словарной статьи зависит от того, сколько значений имеет заглавное слово. В словаре может быть слово, значение которого передается одним русским словом: algebra -алгебра. В словарной статье приводятся все основные значения заглавного слова, а также отражается возможность использования его в функции разных частей речи. Ср.: house n. дом

и to house v. вмещать. Большинство слов как в русском языке, так и в иностранном многозначно, т.е. имеет несколько значений. Ср. case - случай, судебное дело, ящик, футляр, пациент и т.д., или в русском языке р у ч к а - маленькая рука, принадлежность для письма, устройство для открывания и т.д. Чтобы раскрыть каждое из значений многозначного слова, оно обычно иллюстрируется примерами - предложениями, которые показывают, что выбор конкретного значения многозначного слова зависит от контекста, в котором они встречаются.

РАБОТА С ОБЩИМ СЛОВАРЕМ

Чтобы избежать трудности при нахождении в словаре отдельных слов, устойчивых словосочетаний, идиоматических выражений, определить исходную форму слова необходимо соблюдать последовательность работы с общим словарем:

1 ознакомление с разными типами словарей;

2. повторение алфавита и упражнений, связанных с расположением слов;

3. разъяснение значений помет и определение характера слов;

4. перевод сложных существительных;

5. перевод сложных прилагательных;

6. перевод фразеологических сочетаний;

7. перевод идиоматических выражений;

8. перевод слов, которые не помещены в словаре. Следует иметь в виду, что существуют общие словари с различной численностью слов. В общих словарях приводятся общеупотребительные слова.

Кроме того, существуют технические словари и словари по разным отраслям знаний, в которых можно отыскать необходимые термины.

ЗНАКОМСТВО СО СТРУКТУРОЙ СЛОВАРЯ

1. Необходимо знать объём словаря;

2. Где находится в словаре алфавит;

3. Краткий фонетический справочник (правила чтения);

4. Транскрипционные и условные знаки;

5. Необходимо ознакомиться с приложениями к словарю (сокращения, географические названия, таблица неправильных глаголов) и уметь пользоваться ими.

6. Знать закономерности словообразования, а именно

а) лексический запас языка растет с помощью приставок;

б) буквы Q, X, Y - заимствованные и потому малопродуктивны;

КАК ПОЛЬЗОВАТЬСЯ АНГЛО-РУССКИМ СЛОВАРЕМ

Все английские слова расположены в алфавитном порядке.

Каждое слово (в том числе и сложное слово, пишущееся через дефис или раздельно) со всем относящимся к нему материалом образует самостоятельную словарную статью.

При словах иностранного происхождения, сохранивших своё написание и иногда произношение, как, например, fiancée, sou и т.п., даётся указание на происхождение слова (фр., нем., лат. и т.п.)

Все слова даны в английском написании. Американский вариант

приводится самостоятельным словом по алфавиту, со ссылкой на английский вариант. Все заглавные слова снабжены фонетической транскрипцией, которая ставится непосредственно после самого слова. Произношение даётся по системе Международной фонетической транскрипции.

За основу произносительной нормы берётся первый вариант слова, поскольку он обычно является наиболее употребительным .

Каждое заглавное английское слово снабжается грамматической характеристикой в виде аббревиатуры n,a,v и т.п., а также фонетической транскрипцией. Дополнительные грамматические сведения (например, refl., pass. и т.п.) даются после указания части речи или после цифры, если они относятся лишь к данному значению.

Специальные термины, когда это необходимо, снабжаются условными сокращениями (тех., воен. и т.п.). Разговорные выражения, американизмы и т.п. во всех случаях помечаются условными сокращениями (разг., амер. и т.п.). После знака ◊ (ромб) приводятся идиомы, устойчивые сочетания поговорки и пословицы. Неправильно образующиеся формы глаголов, степени сравнения прилагательных или наречий и множественного числа имён существительных приводятся в скобках непосредственно после грамматической аббревиатуры, например:

go (went;gone)
bad (worse;worst)
mouse (pl. mice)

Отдельными приложениями даны:

- Список личных имён,
- Список географических названий,
- Список наиболее употребительных английских сокращений.

КАК ПОЛЬЗОВАТЬСЯ ФРАНЦУЗСКО-РУССКИМ СЛОВАРЕМ

1. Все слова расположены в словаре (также и внутри одной словарной статьи) в строго алфавитном порядке и даются в исходной форме.

2. Запомните условные обозначения: m - masculin - существительное муж. рода; f - féminin - имя сущ. жен. рода; pl - pluriel - множ.число; vt - verbe transitif - переходный глагол; vi - verbe intransitif - непереходный глагол; v. impers. - verbe impersonnel - безличный глагол.

3. Глаголы, как правило, переведены формой несовершенного вида; (a), (ê) указывает на спряжение глагола с avoir или être. Возвратные глаголы даются в конце словарной глагольной статьи.

4. Слова, произношение которых затруднено или не соответствует правилам, сопровождаются транскрипцией в квадратных скобках.

5. Специальные термины, когда это необходимо, снабжены условными сокращениями (тех., воен. и т.п.).

6. Отдельным приложением в словаре даны: Список географических названий, Список наиболее употребительных условных сокращений, Список неправильных глаголов.

СПРАВОЧНАЯ ЛИТЕРАТУРА

Справочная литература имеет целью предоставить возможность быстрого наведения справки по интересующему в данный момент вопросу в области науки,

техники, политико-организационной, хозяйственной, культурной, практической деятельности. От смежных видов литературы, специальной, производственной, учебной, научно-популярной, отличается тем, что предназначена не для сплошного чтения, а для пользования время от времени по мере возникновения потребности в наведении соответствующей справки для получения ответа на конкретно возникший вопрос. Все словари (за исключением энциклопедических) делятся на лингвистические и терминологические. Словари содержат упорядоченный перечень языковых единиц (слов, словосочетаний, фраз, терминов, знаков) с краткими характеристиками или переводом на другой язык. Лингвистические словари бывают: научные (с материалами о лингвистических исследованиях, интересующих специалистов), нормативные (служат для упорядочения, толкования, произношения, правописания в современном литературном языке), учебные (имеют методическую направленность и ориентацию на тот или иной этап обучения языку - для школьников, студентов и всех, кто изучает язык), популярные (выполняют общеобразовательные функции для широкого круга читателей).

СЛОВАРИ ВТОРОЙ ГРУППЫ

Словари второй группы - терминологические - ставят целью разъяснение понятий, обозначаемых терминами. Различают словари нормативные (наиболее значительная часть терминологических словарей включает свод терминов одной или нескольких отраслей), учебные (содержат термины, необходимые в учебном процессе), популярные (призваны помочь неподготовленному читателю освоить термины какой-либо области науки).

РАБОТА С ОРИГИНАЛЬНЫМ МАТЕРИАЛОМ

Работа с оригинальным материалом требует знаний не только терминологии, но и знания научного стиля изложения, латинизмов, сокращений, идеологизмов, специфичных физических единиц измерения и т.д. Практически, любой словарь имеет Приложения, содержащие в себе данную информацию, которые помогут успешно выполнить работу.

ПРАКТИЧЕСКИЙ РАЗДЕЛ

Задания для аудиторной работы студентов

АНГЛИЙСКИЙ ЯЗЫК

STUDENTS' LIFE. A NEW PERION IN MY LIFE

I. Read the text about Petrov's student life. Describe your own one.

Let me introduce myself to you. My name is Dima. My surname is Petrov. I'm from Pinsk. At the age of six, I went to school and always did well at school. My favourite subjects at school were Maths and English, besides I was good at sport. This year I've finished secondary school and entered BrSTU. I worked hard to become a student of BrSTU that is why I passed entrance tests successfully.

Who can forget the first day at the university when one turns from an applicant who has passed entrance exams into a first-year student? I did it! I entered, I got in to the university! A solemn ceremony in front of the university building and serious people making speeches. Do you happen to know who they are? Who? The rector, vice-rectors, deans, subdeans... and what about those ladies? Heads of departments and senior lecturers? Some of them must be professors, some — associate or assistant professors, but, of course, all of them have high academic degrees.

So now I'm a first-year student. Students are the future of every country. They are young citizens of our society, full of infinite energy and progressive ideas, fantastic plans and noble ambitions, hopes and dreams. Student life is the brightest period of our life. It is a mixture of studies and great fun. I know that my parents (ex-students) miss those old good days of their student life.

There are several reasons why student life is exciting. First of all, students learn what they need for their future profession. It's even better if the student really enjoys the direction he or she chose. Secondly, being a student doesn't mean to work and study all the time. They get plenty of free time for their hobbies and favourite pastimes. Thirdly, students' social life is very interesting.

Certainly, a student has certain duties to perform. It goes without saying that the primary student duty is studying hard and acquiring proper knowledge for the future career. He must attend all the classes at college, do all the work at the right time, be punctual and disciplined. It can help the student achieve his goals and become diligent and perseverant. If he doesn't neglect his studies he will receive rich dividends in his future work. My classes begin at 8:10. We have lectures in different subjects. As a rule we have three or four classes a day. Sometimes it is very hard to wait till they end. Usually, I don't miss my classes because I want to pass my exams successfully. Occasionally I have to stay at the University till 5 or even 6 o'clock in the evening because I go to the library to get ready for my practical classes or to write a report.

As I'm from Pinsk and I study in Brest so I need some housing. There are two opportunities for me: I can live in a dormitory or rent a flat. I decided to live in a dormitory and I think it is even more interesting to be a student if you live in a dormitory. After the sessions you can play the guitar and sing songs. The ones, who like dancing, go to local discos. Others get together simply to chat and discuss the topics they've learned.

As a rule, I have no free time on week-days. So by the end of the week I get very tired. My regular day off is Sunday. It is a day of freedom from routine duties and studies. I can do whatever I wish and go wherever I want. But I must admit that every day off needs some special planning. Time passes quickly and if you have no plans be sure to get no results. Our University offers plenty of opportunities and ways to enjoy one's free time. In your free time you can practice signing, music and choreography. And the annual contest "BrSTU Stars" helps to reveal the talents of first-year students. Our Student Club consists of 13 creative collectives, which take an active part in city, regional and national events. The Students' Club is the centre where the students can spend their time to the best advantage and make new acquaintances. The Club offers various activities to the students who want to show their creativity. You can join university amateur societies and groups or try out themselves as script writers, producers and actors at University shows and festivals. This social life broadens the mind, develops your talents and communication skills.

I also believe that a good student should also go in for sports to stay in good health and mood. They say: "A sound mind lives in a sound body." The University Sports Club offers a choice of 14 sport societies for the students to enjoy exercise in their free time. Every year the University Sports Club and the Department of Physical Training jointly conduct more than 50 athletic events: university competitions and championships among teachers and students in indoor soccer, table tennis, chess, aerobic, and track-and-field. The Citadel Alpinist Club is one of the most attractive centers of campus social life. It has united the students and staff, as well as University graduates, who are always eager to share their experience with newcomers. The Club chronicle keeps records of many climbing expeditions to the most picturesque places in the Carpathians, Caucasus, and Crimea as well as boating and skiing trips throughout Belarus. In 2010 the Alpinist Club participated in the third category difficulty climbing, and won the second prize in the Regional sport climbing championship.

Student life is never boring. It is always full of excitement and interesting experiences. Finally, I'd like to say that it is absolutely great to be a student!

II. Find in the text (ex.I) English equivalents for the following Russian words and word combinations.

Первокурсник, любимое времяпрепровождение, свободное время, успешно сдать экзамены, очень уставать, как говорится, соревноваться, доцент, студент дневного отделения.

III. They say that it is a poor soldier who does not want to become a general. Name the steps of the social ladder which a student must pass to climb up to the position of the rector. Use the words from the list below, placing one word on one step.

Dean, assistant lecturer, head of department, vice-rector, associate professor, assistant professor, subdean, professor.

IV. Match the words with similar meanings.

1. hostel	1. term
2. semester	2. to finish

3. to introduce	3. to like
4. to leave	4. to present
5. to prefer	5. dormitory

V. Match the words with opposite meanings.

a) to pass	1. to fail
b) to like	2. to hate
c) easy	3. difficult
d) lazy	4. hard-working
e) strong	5. weak

THE REPUBLIC OF BELARUS

I. Before you read the text, talk about these questions.

1) Do you know what sign “Made in Belarus” means?
2) Do Belarusians use the Belarusian language in everyday life?
3) Is Belarus an attractive tourist destination? How does free-visa entry support tourism in our country?

II. Read the following words and learn their meaning.

1)	sovereign	суверенный
2)	to border on (with)	граничить с
3)	to occupy	занимать
4)	to stretch for	простираться
5)	terrain	местность
6)	coniferous	хвойный
7)	meadow	луг
8)	rare	редкий
9)	reserve	заповедник
10)	peat	торф
11)	potassium	калий
12)	gravel	гравий
13)	clay	глина
14)	competitive	конкурентный
15)	favorable	благоприятный
16)	flax	лён
17)	livestock	домашний скот
18)	conduct	вести (торговлю)
19)	expenditure	расход, потребление
20)	cooperation	сотрудничество
21)	extensive	обширный
22)	highway	автомагистраль, шоссе
23)	toll	пошлина

III. Match the words in the box with definitions 1-12.

humid	***flora and fauna***	***flat***	***to constitute***
leading	***a capital***	***to export***	***route***
legislative	***a supplier***	***network***	***a deposit***

1. a city which is the centre of a country or other political area
2. to form or make something
3. containing extremely small drops of water in the air
4. having little or no height
5. plants and animals.
6. relating to the making of laws
7. a layer that has formed under the ground, especially over a long period
8. a country (a person, a company) that provides particular goods
9. best, most important, or most successful
10. to send goods to another country for sale
11. a large system consisting of many similar parts that are connected together
12. a particular way or direction between places

IV. Read the text. Use the dictionary to look up unfamiliar words.

The Republic of Belarus is a young sovereign state situated in the eastern part of Europe. It borders in the north and east on Russia, in the west on Poland, in the south on Ukraine, in the northwest on Latvia and Lithuania. Modern Belarus occupies the territory of 207,600 square kilometers and it stretches for 650 km from east to west and for 560 km from north to south. The Republic of Belarus consists of six regions, the largest cities of which are Minsk, Gomel, Brest, Vitebsk, Grodno and Mogilev. The capital and the largest city is Minsk, located in the center of the country.

About 9,5 million people live in Belarus. Ethnic Belarusians constitute about 81% of the population of the country. Russians, Poles, Ukrainians and other nationalities also live in Belarus. About two thirds of people live in urban centers. Today both the Belarusian and Russian languages are official languages of the country.

Belarus has a temperate continental climate with mild humid winters, warm summers and wet autumns. Belarus has a generally flat terrain. Nature is the main landmark of the country. Belarus is the land of vast plains and picturesque hills, thick forests and green meadows, deep blue lakes and flowing rivers. About one third of its territory is covered with forests, mostly coniferous and birch. Belarus is famous for its rich flora and fauna. The country is inhabited by hundreds of rare species of animals and plants, especially in Belovezhskaya Pushcha. It is one of the national symbols of Belarus, the largest forest in Europe and a unique tourist center. The reserve is the major home of European bison, the biggest representative of European fauna.

Belarus is often called the land of rivers and blue lakes. There are more than 20,000 rivers and streams in Belarus, and about 11,000 lakes. Naroch is the largest lake in Belarus. The Dnepr is the longest and the most important river in Belarus. It flows from Russia, through Belarus into Ukraine, providing important shipping channel between the Baltic Sea and the Black Sea.

Natural resources are mainly represented by thirty types of minerals. Peat is in the first place among energy resources. Peat deposits are quite rich and can be found in every region. Potassium salts take the leading position among the minerals. The country

is one of the five biggest suppliers of potassium in the world. There are also deposits of coal, oil, gravel, sands and clays in Belarus.

The Republic of Belarus has a significant economic potential which makes it possible to produce competitive industrial and agricultural products. The brand «Made in Belarus» is known in many countries. Belarusians participate actively in leading international economic forums. The most developed branches of industry are machine building, radio-electronics, chemical and food industry. The most important manufactured products are tractors, transport vehicles, trucks, agricultural machinery, metal-cutting machines as well as consumer goods such as bicycles, clocks and watches, refrigerators, TV sets and others.

More than half of the land is used for agriculture. The climatic conditions are favorable for growing potatoes, grains, sugar beet, flax and vegetables. Agriculture specializes in milk and meat production. Livestock production (cattle, hogs, sheep and goats) accounts for more than 50 % of agriculture and is the main source of funds for the development of the agricultural sector of the country.

Belarus exports tractors, heavy lorries, motorcycles, TV and radio-sets, furniture, carpets, textiles, chemicals and foodstuffs. Imports include fuel, natural gas, industrial raw materials, metal, chemicals, cotton, sugar, vegetable oil, fish products, tea, coffee, wine. Fuel is the largest import expenditure. Russia is the most important trade partner. Belarus also conducts trade with the countries of the European Union (Great Britain, Poland, Germany, Lithuania, the Netherlands, Latvia, Belgium and Norway). There is a positive dynamics in cooperation with the traditional partners in Latin America, such as Brazil, Cuba, Ecuador, and in Asia, notably with China, India, Vietnam, Israel, Korea and Japan.

Due to its geographical position right in the center of Europe our country is an international corridor connecting the West and the East. Belarus has an extensive transportation system, including networks of railroads, highways, air and water routes. The major railroad which was built in 1860s to connect Moscow and Warsaw, runs through Belarus via Minsk and Brest. The M1 is the main road crossing Belarus. It forms a part of European route and is the most important road link in the country connecting Moscow with Poland and Western Europe. There is a system of toll roads in the Republic of Belarus. This technology enables foreign road users to pay tolls.

Belarus has several international airports. Minsk has a modern national airport which accepts international flights from all over Europe. This is the fastest and most comfortable way to get to Belarus, but the most expensive at the same time.

Belarus has a network of water routes that connects the country with the bordering states. Navigation routes are known to go along the Dnepr-Bug Canal, the rivers Sozh, Berezina, Dnepr, Pripyat, Neman and others. They improve water transportation of cargo and passengers by linking the mentioned rivers with the ports on the Baltic Sea and the Black Sea.

Participation in the international organizations enables Belarus to achieve its political goals, contribute to the development of the country and modernize its economy. In 1945 Belarus became a founding member of the United Nations. Today Belarus is a member of over 60 international organizations, among them the United Nations, UNESCO, the World Health Organization, the International Bank for Reconstruction and Development, the International Monetary Fund, the European Bank for Reconstruction and Development, the Customs Union and the Eurasian Economic Union.

Belarus is a presidential republic. State power in the country is formed and realized through three main branches: legislative, executive and judicial. Under the constitution the president is the head of the state and directs the domestic and foreign policy. A two-chamber parliament is the main legislative body of the state. The executive branch is represented by the Council of Ministers headed by the prime minister. The judicial power in the republic consists of three high courts: the Supreme Court, the Supreme Economic Court and the Constitutional Court. The latter is charged with protecting the constitution. It has the power to review the constitutionality of presidential edicts and the decisions of the other two high courts.

As Belarus is situated in the center of Europe, a lot of wars took place on its territory. The World War II is one of the most tragic periods in the history of Belarus. Its territory was occupied by the Nazi for three years. The country lost more than three million people. Belarus also lost more than half of its national wealth, a lot of towns and villages were ruined.

Nowadays, Belarus has become a sovereign independent state with a well-developed industry and agriculture, science and culture. It contributes to the world peace, friendship and cooperation among nations.

V. Fill in the table below.

Official name	*The Republic of Belarus*
Area	
Administrative centre s	
Capital	
Official languages	
Population	
Ethnic groups	
Climate	
Natural resources	
International relationships	
System of government	

VI. Find equivalents to the following Russian word combinations in the text.

1. суверенное государство
2. состоять из шести регионов (областей)
3. умеренный континентальный климат
4. редкие виды животных и растений
5. уникальный туристический центр
6. судоходный канал
7. природные ресурсы
8. месторождения угля
9. экономический потенциал
10. производить конкурентоспособные товары
11. животноводство
12. промышленное сырьё
13. платные дороги
14. достичь политические цели

15. указы президента

VII. Match the words to form word combinations. Give Russian equivalents to them.

sovereign	system
urban	hills
official	symbol
continental	state
flat	resources
picturesque	airport
thick	centre
national	routes
shipping	language
natural	terrain
leading	climate
transportation	channel
navigation	forest
international	position

VIII. Complete the sentences with correct prepositions. Translate the sentences into Russian.

1 The Republic of Belarus borders _____ Russia, Poland, Ukraine, Latvia and Lithuania.
2 Modern Belarus stretches _____ 650 km from east to west and _____ 560 km from north to south.
3 The Republic of Belarus consists _____ six regions.
4 Minsk is located _____ the centre of the country.
5 About one third of the territory is covered _____ forests.
6 Belarus is inhabited _____ hundreds of rare species of animals and plants.
7 Peat is _____ the first place among energy resources.
8 Belarusians participate _____ leading international economic forums.
9 There is a positive dynamics in cooperation _____ the traditional partners in Latin America.
10 The major railroad in Belarus was built _____ 1860s.
11 Navigation routes go _____ the Dnepr-Bug Canal, the rivers Sozh, Berezina, Dnepr, Pripyat, Neman and others.
12 Participation _____ the international organizations enables Belarus to contribute _____ the development of the country.
13 The executive branch is represented _____ the Council of Ministers.

IX. Read the text again and answer the following questions.

1. Where is the Republic of Belarus situated?
2. What is the territory of the Republic?
3. How many administrative regions are there in Belarus?
4. What is the population of the country?

5. What is the climate of Belarus?
6. What national reserve symbolizes our Republic?
7. What natural resources of Belarus do you know?
8. What are the most developed branches of industry in Belarus?
9. What does agriculture specialize in?
10. Belarus exports various goods, doesn't it? What are they?
11. What is the largest import expenditure?
12. Why is the M1 the main road in the country?
13. What international organizations does Belarus participate in?
14. What can you say about the Republic's political system?
15. How did the World War II influence our country?

X. Make a plan of the text: put the information below in the right order as it is given in the text. Discuss each point of the plan.

1. Industry
2. Nature
3. Geographical position
4. Export, import
5. Population
6. Transportation system
7. Natural resources
8. International organizations
9. Agriculture
10. Political system
11. World war II
12. Climate

XI. Read the text about important facts in the history of our country. Complete the text with additional information about the facts mentioned.

The first written documents of the Belarusian statehood go as far back as 980 AD when Prince Rogvolod began his reign on Polotsk lands, which are the historie and religious center of the Belarusian nation and culture.

From the 13th till the 16th century the territory of contemporary Belarus was the center of a medieval polyethnic state - the Grand Duchy of Litva. The lands of contemporary Belarus, Lithuania, the Ukrainę and a part of Russia comprised this state.

The period that started in the 15th century, when the crusaders expansion was crushed in the west, and lasted until the middle of the 17th century is considered the Golden Age in Belarusian history. This period was marked with significant evolutionary processes in the culture and economy of Belarusian people.

In 1569 the Grand Duchy of Litva and the Polish Kingdom established a political union according to which the Litva-Poland confederation – Rzecz Pospolita – emerged. As a result of three divisions of Rzecz Pospolita in 1772, 1793 and 1795 between three empires - Russia, Austria and Prussia – the Belarusian lands were incorporated into the Russian Empire.

On December 30,1922 the Communist governments of Belarus, Russia, the Ukrainę and Caucasus created the Union of Soviet Socialist Republics, which included

the major part of the former Russian Empire. On August 1991 Belarus declared its independence, contributing to the collapse of the USSR in December

BELARUSIAN ECONOMY[1]

I. **Read the text. Use the dictionary to look up unfamiliar words.**

Belarus has a rather developed economy. It retained well-developed industrial base following the break-up of the USSR. The country also has a broad agricultural base and a high education level. Among the former republics of the Soviet Union, it had one of the highest standards of living. Nowadays approximately 5.3 million people contribute to the economy of Belarus. Of this total, 42 percent are employed in industry; 21 percent in agriculture and forestry; 17 percent in culture, education, and health services; 7 percent in trade; 7 percent in transportation, and 6 percent in miscellaneous pursuits.

Official unemployment rate is lower than 1%. Methods of International Labour Organization (international standard) also include job-seekers who are not registered officially. Many unemployed people in Belarus are trying to avoid registration, because of obligatory public works, while unemployment benefits are very low. In July 2012 World Bank concluded that the real unemployment rate is seven times higher than the official rate. Belarus is a member of Commonwealth of Independent States (CIS) and Eurasian Economic Union (EAEU).

The Gross Domestic Product (GDP) in Belarus was worth 62.572 billion US dollars in 2019. The GDP value of Belarus represents 0.09 percent of the world economy. GDP in Belarus averaged 32.27 USD Billion from 1990 until 2015, reaching an all time high of 76.10 USD Billion in 2014 and a record low of 12.14 USD Billion in 1999. The economy of Belarus is world's 72nd largest economy by GDP based on purchasing power parity (PPP), which in 2019 stood at $195 billion, or $20,900 per capita. In 2018, Belarus ranked 53rd out of 189 countries on the United Nations Human Development Index, and is in the group of states with "very high development".

Exports provide 50.52% of Belarus' GDP (Nov.2018) with more than a half of exported goods falling in the industrial products category. Major export items: machinery, transport vehicles, chemicals, petrochemical products, rubber, fibers, mineral products, primary metals, fertilizers, food, agricultural raw materials, as well as IT and transportation services. Belarus also holds about 5% in the world exports of dairy products and about 11% of butter.

Belarus is relatively poor in terms of natural resources. It does not have vast amounts of most of the minerals used in modern industrial production. The country has small reserves of petroleum and natural gas.

In the south-east there are small reserves of hard coal, brown coal, and petroleum, but they are not easily accessible and remain undeveloped. The country has large forest reserves. About one-third of the republic is covered in forest.

Belarus does possess, however, one of the world's largest reserves of potassium salts – discovered in 1949 south of Minsk and exploited from the 1960s around the new mining town and fertilizer-manufacturing centre of Soligorsk. Although exports of

potash to other former Soviet republics declined significantly in the 1990s, exports to other countries remained at a high level.

The country also is a world leader in the production of peat, which is especially abundant in the Pripyat Marshes. Peat is used as a mulching material in agriculture. In briquette form it is used as fuel.

Among the other minerals recovered are salt, an important deposit of which, near Mozyr, was opened in the 1980s; building materials, chiefly limestone and, near Grodno, quartz sands for glassmaking, both used locally; and small deposits of gold and diamonds.

Belarus is heavily reliant on oil and gas supplies from Russia. These fuel imports reach Belarus via two major pipelines: the Friendship Pipeline carrying oil, and the Natural Lights Pipeline carrying natural gas. The government is attempting to accelerate the development of its raw-material base, but Belarus remains dependent on Russia for most of its energy and fossil-fuel requirements.

Belarus is a highly developed industrial country. The main industries include machine building, instrument making, chemicals, timber processing, textile and clothing manufacture, and food processing.

Manufacturing contributes most of the country's industrial output. The country is known for its heavy-duty trucks, transport vehicles, and tractors. Belarus also manufactures computers, engineering equipment, metal-cutting tools, and such consumer goods as clocks and watches, motorcycles, bicycles, refrigerators, radios, television sets and others. Forests yield many wood products, including furniture, matches, plywood and paper goods. Heavy industry is the most highly developed sector of the economy. Machine-building industry is mostly concentrated in Minsk. It makes various types of tractors, heavy-duty trucks, other heavy machinery and electrical equipment. Belarus specializes in truck manufacturing. The Belarusian Autoworks (BELAZ) is one of the major world manufacturers of mining dump trucks with payload capacity from 25 to 360 tons, as well as the other heavy vehicles, being used in mining and construction branches. The products of BELAZ are supplied to more than 70 countries of the world. Dump trucks are also made in Moghilyov.

During the last years the ICT sector in Belarus receives strong government support and is one of the top-priority economic sectors to develop. Thus, by the special Law issued in 2005, Belarus Hi-Tech Park was established with the main goal to support software industry. HTP Belarus provides special business environment for IT business with incentives unprecedented for European countries. Since 2015, Hi-Tech Park resident-companies are allowed to get involved in new science-intensive activities. Now, any company engaged in IT and related industries (micro-, opto- and nanoelectronics, mechatronics, telecommunications, radar ranging, radio navigation and wireless communication), information protection and establishment of data processing centers can apply for residency within the HTP and benefit from tax-incentives and other advantages it provides. HTP resident-companies can work and provide services in the field of information system analysis, designing and software development (IT consulting, audit, national information networks maintenance, database development and corporate information systems implementation and support). The export share in the total production volume exceeds more than 90 %. Park specialists teach children and teenagers to program.

Such support for the IT sector in 2019 increased the share of the IT sector, which provided half of the GDP growth.The export of IT services in 2017–2019 increased by

2.4 times. Production growth in the first half of 2019 was 166%. The total export of services of HTP residents in 2019 exceeded $2 billion. In January 2020, the HTP registered 758 companies with a total of more than 58 thousand employees. In April 2020, the number of resident companies in the Park was 818 with a total of more than 61 thousand employees. In July 2020, the number of residents of the Park increased by 71 companiesIn October 2020, another 83 companies became residents of the Hi-Tech Park. Thus, in October 2020, the number of residents of the Park totals 969 companies, which employ more than 65 thousand specialists.

Mobile applications developed by HTP residents are used by more than 1 billion people in over 150 countries of the world. Some major international companies have already opened captive centers or global in-house centers in Belarus: IHS Markit, Playtika, Netcracker, Viber, Yandex, Fitbit, Ciclum, WorkFusion, etc. According to Ernst & Young survey, more than 30% of the Fortune Global 200 companies have worked with HTP residents. The most trending customers are Facebook, Microsoft, Northrop Grumman, PepsiCo, Whirlpool, 3M, Amazon.com, Cisco Systems, HP, Oracle, Xerox, Disney, Intel, Apple and IBM, which have worked with several companies from Belarus

Agriculture accounts for about a seventh of Belarus' economic output. Belarus has a large amount of farmland. But a short growing season and a lack of fertile soil make farming difficult. Most of Belarus has soils of only moderate fertility, but the better-drained uplands can be productive with fertilizer application. Considerable areas of the swampy lowlands have been drained since the late 19th century, with much of the reclaimed land being used for fodder crops. The agricultural sector in Belarus is dominated by large state and collective farms. State farms operate like government factories, called sovkhozy.

Independent Belarus restructured its banking system into a system consisting of the National Bank of Belarus and a number of commercial banks. Six commercial banks, four formerly state-owned specialized banks Belagroprombank (agricultural sector), Promstroibank (industrial sector), Vneshekonombank (foreign trade), and Belarusbank (savings bank) and two universal banks (Priorbank and Belbusinessbank) dominated the banking system. These banks account for over 80 percent of the banking system outstanding loans and approximately 70 percent of domestic currency deposits. In 1992 Belarus became a member of the International Bank for Reconstruction and Development, the International Monetary Fund, and the European Bank for Reconstruction and Development.

Belarus has an extensive transportation system, including railroad and highway networks connecting its cities with other major European cities. Belarus has several international airports, the largest of which is Minsk-2, located about 50 km east of its capital.

II. Match the words listed below with the definitions that follow.

supermarket currency imports output expenditure inflation exports crop workforce meadow partner soil farmland industry pasture livestock security upland

1. The produce of cultivated plants, esp. cereals, vegetables, and fruit.
1. A metal or paper medium of exchange that is in current use in a particular country.
2. Something expended, such as time or money.

2. Goods or services sold to a foreign country or countries.
3. Land used or suitable for farming.
3. Goods or services that are bought from foreign countries.
4. Organized economic activity concerned with manufacture, extraction and processing of raw materials, or construction.
5. A progressive increase in the general level of prices brought about by an expansion in demand or the money supply or by autonomous increases in costs.
6. Cattle, horses, poultry, and similar animals kept for domestic use but not as pets, esp. on a farm or ranch.
4. An area of grassland, often used for hay or for grazing of animals.
5. The act of production or manufacture.
6. An ally or companion.
7. Land covered with grass or herbage and grazed by or suitable for grazing by livestock.
8. A certificate of creditorship or property carrying the right to receive interest or dividend, such as shares or bonds.
15. The top layer of the land surface of the earth that is composed of disintegrated rock particles, humus, water, and air.
15. A large self-service store retailing food and household supplies.
16. An area of high or relatively high ground.
16. The total number of workers employed by a company on a specific job, project, etc.

III. Group the following words into eight synonymous groups:

amount, low-priced, occupation, swamp, cheap, machinery,
profession, various, equipment, marsh, pursuit, vast, extensive,
miscellaneous, quantity, inexpensive, need, requirement

IV. Group the words that follow into six antonymous groups:

cheap, high, poor, rich, employment, long, private, short,
expensive, low, public, unemployment

V. Complete the following sentences with the appropriate terms from the list below.

agriculture, industrial production, CIS countries' markets, energy needs, livestock, farming, farmland, potassium salts, forest reserves, service industries, heavy industry, small businesses, industrial output, trading partner

1. Minerals are used in modern ... .
2. The country has large ... .
3. Belarus possesses one of the world's largest reserves of ... .
4. Belarus generates only about 12 percent of its own ... .
5. Manufacturing contributes most of the country's... .
6. ... is the most highly developed sector of the economy.
7. ... accounts for about a seventh of Belarus' economic output.
8. Belarus has a large amount of ... .

9. A short growing season and a lack of fertile soil make ... difficult.
10. Cattle, hogs, and sheep are the most important ... raised in the country.
11. ... are industries that produce services, not goods.
12. Many individuals and families are starting ... .
13. A great amount of goods produced by Belarusian industries and agriculture is oriented towards the ... .
14. Russia, which supplies most of the country's fuel imports, is the most important ... .

VI. Do you think the following statements are true or false? Discuss your answers in pairs.

1. The national economy of Belarus is well-developed.
2. Belarus has vast amounts of most of the minerals used in modern industrial production.
3. The country has large reserves of petroleum and natural gas.
4. The country is a world leader in the production of peat.
5. Belarus is heavily reliant on oil and gas supplies from Russia.
6. Belarus satisfies all its energy needs.
7. Heavy industry is the least developed sector of the economy.
8. The chief chemical product is potassium fertilizer.
9. The Gomel area is Belarus' leading manufacturing centre.
10. Agriculture accounts for about a half of Belarus' economic output.
11. Belarus has a large amount of farmland.
12. The agricultural sector in Belarus is dominated by private farms.
13. The transition to private farms proved to be slow and difficult.
14. Service industries are well developed in Belarus.
15. Belarus proper consumes most of the goods produced.
16. Belarus has an extensive transportation system

BREST

I. Before you read the text, talk about these questions.

Why is Brest so popular among tourists today? How is this fact connected with the geographical position?
Brest played an important role in the history of Belarus, didn't it? Explain your answer.

II. Read the following words from the text below and learn their meaning.

1)	greenbelt	зелёный пояс
2)	highway	магистраль
3)	bark	кора
4)	elm	вяз
5)	ford	брод, поток
6)	bog	трясина, болото
7)	rescue	спасение
8)	birch-bark	береста
9)	cape	мыс
10)	to facilitate	способствовать
11)	autonomous	автономный, самоуправляющийся

12)	to annex	присоединять, аннексировать
13)	to consolidate (with)	объединять (с)
14)	enterprise	предприятие
15)	management	управление
16)	implementation	реализация
17)	advantageous	выгодный
18)	location	расположение
19)	durable	прочный, длительный
20)	consulate	консульство

II. Match the words in the box with definitions 1-12.

advantageous	***ancient***	***highway***	***to annex***
merchant	***facilitate***	***qualitative***	***cooperation***
foodstuff	***innovative***	***valid***	***enterprise***

1) using new methods or ideas
2) a public road, especially an important road that joints cities or towns together
3) helping to make more successful
4) to take possession of an area of a country, usually by force or without permission
5) relating to how good or bad something is
6) very old, having lasted for a very long time
7) a person whose job is to buy and sell products, especially by trading with other countries
8) an organization (a business) that will earn money
9) to make something possible or easier
10) the process of working together to achieve something
11) based on truth or reason, able to be accepted
12) a substance that is used as food or to make food

IV. Read the text. Use the dictionary to look up unfamiliar words.

Brest surrounded by a large greenbelt is situated in the south-west of the Republic of Belarus, neighboring with Poland and Ukraine. Its territory covers 72.9 square kilometers, about 326 thousand people live there. Being situated on the main Berlin-Moscow railway line and international highway, Brest became a principle border crossing since World War II. Today it links the European Union and the Commonwealth of Independent states.

There are several theories of the city name origin. The most common are as follows. The name of the city comes from: a) the Slavic root “beresta” meaning birch bark, b) the Slavic root “berest” meaning elm, c) the Lithuanian word “brasta” meaning ford.

Different legends exist about the foundation of Brest. According to one of them a Russian merchant who travelled with his caravan in the west, had become stuck in the bog. He covered the way for himself with branches of birch-trees and managed to reach the river bank. Grateful for his wonderful rescue he built a chapel in this place. Later people settled here and called their settlement Berestye from the word “beresta” meaning birch-bark.

In the 11th century Berestye was an ancient Russian trade centre and a fortress, which was situated on the cape formed by the Western Bug River and by the left branch of the river Mukhavets. The development of the city foundation was facilitated by its favourable location on the border with Polish and Lithuanian lands. In the 14-16th centuries Berestye was one of the largest cities in the Great Duchy of Lithuania. In 1390 Berestye was among the first Belarusian cities given the right of autonomous administration under the Magdeburg Law. In 1553 the head of Berestye, Radzivil Chorny, founded the first printing house in Belarus.

During the years of World War I Brest-Litovsk was occupied by German Troops. On March 3, 1918 the Treaty of Brest was signed in the White Palace. Beginning from 1921 Brest-Litovsk, being a part of Western Belarus, was annexed by Poland almost for 20 years. On September 22, 1939 the western part of Belarus was consolidated with the BSSR and Brest became the centre of the region. According to the agreement of the Yalta Conference of February 1945, Brest's status as part of the Belarusian Soviet Socialist Republic was officially recognized. Now it is part of the independent country of Belarus.

Brest today is one of the largest economic and cultural centers of the republic. There are industrial enterprises in the city. Among them we can mention the Electric Test Equipment Plant, The Electric Bulb Plant, the Chemical Goods Plants, and the Knitted-Wear Factory, Joint Venture "Brestgazoapparat" etc. Our enterprises produce electric and gas stoves, furniture, carpets, knitted-wear clothes, foodstuff.

In 1996, at the start of qualitative economic transformations, the first Free Economic Zone was established in the Republic of Belarus. The "Brest" FEZ has become a territory of new possibilities for innovative forms of business management and implementation of promising investment projects with foreign capital.

There is a variety of valid reasons why Brest was specifically chosen as the first place for innovative activities, namely: advantageous geographical location on the EU border, easier access to the CIS/EU markets, close location to automobile, railway, river and air communication routes, availability of production areas with well-developed transportation infrastructure and, last but not least, people with high level of education, professional skills, creative initiative.

The educational system comprises 77 nursery schools, 35 secondary schools, 6 gymnasiums, and 2 lyceums. Young people study at vocational and training schools, at Brest State Pushkin University and Brest State Technical University.

The system of public health includes 28 medical centers. Sport plays a very important role in the city's life. Children attend sports schools for teenagers. There are several sports centers, the Ice Palace, the Rowing Canal, the Sports Manege, the Palace of Water Sports, stadiums, indoor swimming pools and outdoor sports facilities.

The location of the city at the crossroads of the whole Eurasian continent is a good basis for progress in all spheres of life and for the development of durable and perspective international relations. The Russian Federation, Ukraine and the Republic of Poland consulates, which are located in Brest, actually promote cooperation between the people of the countries.

V. Find equivalents to the following Russian word combinations in the text.

1. международная автомагистраль
2. пункт пересечения границы

3. выгодное расположение
4. право автономного управления
5. независимая страна
6. промышленные предприятия
7. качественные экономические преобразования
8. перспективные инвестиционные проекты
9. выгодное географическое положение
10. хорошая основа для прогресса

VI. Match the words to form word combinations. Make affirmative or negative sentences with each word combination.

build	initiative
trade	activities
printing	continent
industrial	enterprises
foreign	relations
business	management
innovative	centre
creative	a chapel
Eurasian	capital
international	house

VII. Complete the sentences with appropriate words or phrases from the box.

autonomous	*implementation*	*enterprises*	*investment*
advantageous	*highway*	*basis*	*public health*
activities	*high education*	*consulates*	*transformations*

1) Brest is situated on the main Berlin-Moscow railway line and international _____ .
2) Berestye was among the first Belarusian cities given the right of _____ administration under the Magdeburg Law.
3) Nowadays there are several industrial _____ in the city.
4) The first Free Economic Zone "Brest" is associated with the start of qualitative economic _____ .
5) The "Brest" FEZ has become a territory of _____ of promising _____ projects with foreign capital.
6) Brest has an _____ geographical location on the EU border.
7) A great number of innovative _____ are realized in Brest.
8) The system of _____ in Brest comprises two universities.
9) The system of _____ includes 28 medical centres.
10) The location of the city is a good _____ for progress in all spheres of life.
11) The Russian Federation, Ukraine and the Republic of Poland have their _____ in Brest.

VIII. In the sentences below fill in the appropriate part of speech derived from the word on the right.

1) There are different legends about the _____ of Brest.	FOUND
2) People called their _____ Berestye from the word "beresta".	SETTLE
3) The _____ location of the city facilitated economic development.	FAVOUR
4) Finally the countries reached an _____ .	AGREE
5) Brest is part of the _____ country of Belarus.	DEPEND
6) The "Brest" FEZ is a territory of great _____.	POSSIBLE
7) There is very little _____ between the tho countries.	OPERATE
8) Great _____ changes have taken place in the economy of the country.	QUALITY
9) The company has suffered from bad _____.	MANAGE
10) The best thing about the _____ of the city is its proximity to the border crossing.	LOCATE

IX. Read the text again and answer the following questions.

1) What advantages can you find in the geographical location of Brest?
2) What are the theories of the city name origin?
3) How many legends do you know about the foundation of Brest? Say a few words about one of them.
4) When did Brest get the right of autonomous administration? How do you understand the meaning of this privilege?
5) When was the first printing house founded in Belarus?
6) What industrial enterprises in Brest are mentioned in the text? Add to the list.
7) What are the aims of the "Brest" FEZ?
8) What are the reasons for the successful economic development of our city?
9) What educational establishments are there in Brest?
10) What sports facilities are available to our citizens?

X. Read the text. Make a short summery.

The Brest Fortress over the Bug has become a symbol of the eternal glory of the Soviet Soldiers. It was founded on June 1, 1836. The Citadel is the main fortification of the fortress. It is not merely a remarkable military construction; it is an interesting architectural complex.

The Brest Fortress got universal fame during the Great Patriotic War because it took the first blow for itself. The courage of the soldiers of the fortress will always be in the memory of our descendants. At the dawn June 22, 1941(Sunday), Hitler Germany launched its perfidious attack against the Soviet Union without declaring war. Hitler had

counted on the “Blitzkrieg”: he expected to rout the Soviet Army Forces in a short period of time.

The garrison of the Brest Fortress had to fight under unbelievably hard conditions. The small fortress area of just four square kilometers was steadily shelled by hundreds of guns while planes with swastika on their wings showered it with bombs. The garrison was short of ammunition, medical supplies and food. They were cut off from the water, which had to be fetched under enemy fire.

The defense lasted for over a month. The fortress walls were tumbling down, the bricks melted and the very earth was scorched, but the fortress stood undaunted. The Nazi command was outraged. The Hitler forces mounted one attack after another, sustaining heavy losses, but they were powerless to crush the fighting spirit of the fortress defenders.

The Brest Fortress became one of the sacred monuments of the Soviet people, a symbol of its heroism and endurance, a living example of patriotism. The memorial complex “Brest Hero-Fortress” erected on the site is a tribute commemorating the immortal exploit of its garrison. Today the Brest Fortress is the major tourist sight.

Brest Millennium Monument (2009) - was designed by the Belarusian architect Alexei Andreyuk and sculptor Alexei Pavluchuk to commemorate the millennium of Brest, Belarus. It was erected in 2009 at the intersection of Sovietskaya Street and Gogol Street in Brest. The project was financed by the state budget and public donations.

The monument presents a group of bronze statues. The angel of mercy with a cross is standing at the top of a granite column. 3 statues remember the remarkable historic personalities that are associated with Brest: Vladimir Vasilkovich, who put up a tower in the castle of the town in the 13th century, Vytautas the grand duke of Grand Duchy of Lithuania, Mikołaj "the Black" Radziwiłł in whose printing shop the first Belarusian book was printed, 3 more statues represent abstract images: warrior, mother, chronicler (who wrote apparently the Primary Chronicle). The total height is 15.1 m, the height of the angel is 3.8 m, the height of the 6 statues is 3m. the diameter of the base is 8.6 m. In April 2011 a belt of high reliefs appeared around the monument. It depicts history-making episodes of Brest

Unique **Belovezhskaya Pushcha** lies about 70 km from Brest, less than 1.5 hours off by road. The word Pushcha means in Belarusian a forest, but not any forest can be called pushcha, because it implies a virgin forest. That is the only virgin forest, which survived in Central Europe. Pushcha is the largest wildlife reserve in the south west of Belarus.

Incomparable beauty, rich wildlife world, interesting history of Pushcha attract tourists from all over the world. 55 species of mammals, 214 species of birds, 11 amphibious species, 7 species of reptiles, nearly 30 species of fish live in this unique reserve. The king of Pushcha is the East European aurochs, the biggest animal in Europe. Pushcha is rich in deer, roes, elks, wild boars, otters and beavers.

The museum of Pushcha offers a rich display that includes common species of wildlife. Tourists can see some animals in spacious enclosures. Pushcha is a vast open-air laboratory for survey of wildlife world. Visiting the Brest region, you should necessarily see Belovezhskaya Pushcha to admire the majestic beauty of this virgin forest.

There are some other places to visit or to see in our town: a lot of museums, two theatres, several cinemas, parks and other places where you can have a good time. Brest City Park is 100 years old, but it looks quite new after the recent reconstruction.

Other architectural landmarks of the city are:

– St. Nicolas' Orthodox Cathedral (1903),
– St. Simeon's Orthodox Cathedral (1865),
– Resurrection Orthodox Cathedral (1995),
– St. Nicolas' Garrison Orthodox Cathedral (1856),
– Cross Exaltation Roman-Catholic Church (1856),
– Brest Central Railway Station (1886),
– Soviet Street.

THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

I. What are the first three things which come into your mind when you hear the words 'Britain' or 'the British? Continue the phrase:

When I think of the British, I think about ….

The following prompts are likely to help you: *bad weather, the royal family, corgi, pubs, cricket, double-decker buses, Shakespeare, Big Ben.*

II. Read the following words and learn their meaning.

1)	to refer	обращаться, ссылаться
2)	to comprise	включать, содержать
3)	island	остров
4)	to occupy	занимать
5)	to influence	оказывать влияние
6)	current	течение
7)	infrequent	нечастый
8)	monarchy	монархия
9)	legislation	законодательство
10)	institution	учреждение
11)	issue	вопрос, проблема
12	to represent	представлять
13)	chamber	палата
14)	majority	большинство
15)	support	поддержка
16)	to appoint	назначать
17)	mining	горная промышленность
18)	construction	строительство
19)	abundant	богатый, изобилующий
20)	beverage	напиток
21)	insurance	страхование
22)	stockbroking	биржевое маклерство
23)	consultancy	консалтинг
24)	livestock	домашний скот
25)	poultry	домашняя птица

26) to damage наносить ущерб

III. Match the words in the box with definitions 1-12.

to appoint	***issue***	***construction***	***support***	
island	***stockbroking***	***to comprise***	***current***	
to damage	***mining***	***to influence***	***abundant***	

1. existing in large quantities
2. an important subject or problem that people are discussing
3. an area of land that has water around it
4. to officially choose someone for a job
5. to harm or break something
6. the natural flow of air or water in one direction
7. agreement with an idea, group, or person
8. the industry or activity of removing coal and other substances from the earth
9. to consist of particular parts or members
10. the work of building or making something, especially buildings, bridges, etc.
11. to have an effect on people or things
12. the job or activity of buying and selling stocks and shares for other people

IV. Read the text. Use the dictionary to look up unfamiliar words.

How much do you know about the United Kingdom? The first thing that comes to one's mind is the weather. It is boring, isn't it? British people don't like it because of its changeability. This feature makes it distinct from the rest of the world. But there are still many interesting facts that make the UK a unique country.

There is an important thing we should know about the UK. Officially the country's name is the United Kingdom of Great Britain and Northern Ireland, but sometimes the name Britain is used to **refer** to the United Kingdom as a whole. The United Kingdom **comprises** four geographical and political parts: England, Scotland, Wales and Northern Ireland. London is the capital and the largest city of the country. It is among the world's leading commercial, financial and cultural centres. Other major cities include Birmingham, Liverpool, Manchester, Belfast, Leeds and others.

The territory of the country is surrounded by water, having only one land border with Ireland. The United Kingdom is separated from the continent by the English Channel. The country occupies an area of over 242,000 sq km and has a population of over 67 million (2019). The United Kingdom covers most of the British Isles, a collection of over 6,000 **islands** of which Great Britain is the largest. England, Scotland and Wales **occupy** the island of Great Britain. Northern Ireland occupies the north-eastern part of the island of Ireland.

The main factor **influencing** the weather of the British Isles is their position close to the ocean. It means that the UK receives a large amount of rain. On the whole the country has a temperate climate with generally cool temperatures and plentiful

rainfall all year round. Atlantic **currents** warmed by the Gulf stream bring mild winters, and British summers are cooler than those on the continent. In general the weather in the UK is often cloudy and rainy, and high temperatures are **infrequent**. In addition the weather conditions are extremely changeable. The English sometimes say you can't plan your day because every moment it can start to rain.

The United Kingdom is a constitutional **monarchy** and parliamentary democracy. The current monarch and the head of the state is Queen Elizabeth II. The monarch undertake various official and representational duties. At the same time the government runs the country. The head of the government is the prime minister (PM) who is the leader of the majority political party. The British Constitution is not based on a single document, it is only partly written and is flexible. Its basic sources are parliamentary **legislation** and law decisions. That's why the country is often said to have an unwritten constitution.

The British Parliament often referred to as the "Mother of Parliaments" is one of the oldest legislatures in the world. It consists of the monarch, the House of Commons and the House of Lords. Parliament is the legislative body of the United Kingdom and the primary lawmaking **institution**.

The work of the two houses of Parliament is similar: making laws, checking the work of the government, discussing the current **issues**. Nevertheless the House of Commons often called simply the Commons is more powerful as it decides which laws will be discussed and passed. The House of Commons is publicly elected from the four political divisions that make up the United Kingdom. The UK voters elect 650 Members of Parliament (MPs) to **represent** their interests in the House of Commons.

The House of Lords often called the Lords is the second **chamber** in the UK Parliament. It is made up of around 800 members. They are not elected. The role of the Lords is generally recognized to be complementary to that of the Commons.

The two main political parties in the United Kingdom are the Conservative Party and the Labour Party. Since 1945 eight general elections have been won by the Conservative party and six by the Labour Party; the great **majority** of the members of the House of Commons have belonged to one of these parties. The Conservative Party developed from the old Tory Party which began in the late 1600's. The Labour Party began in 1900. Much of its support comes from trade unions.

The Liberal Party is the third significant party, but it has never received enough **support** to form the national government. It is much smaller than either the Conservative or the Labour Party.

The party which wins most seats at a general election usually forms the government. The Prime Minister is usually the leader of this party. The Queen **appoints** the Prime Minister after each general election. As the head of the Government, the prime minister selects the Cabinet, choosing its members from among those in Parliament who generally agree with his intended policies. The largest minority party becomes the official Opposition with its own leader and the "Shadow Cabinet". The leader of the Opposition is elected by his or her fellow party members.

Major segments of the British industry include energy, **mining**, manufacturing and **construction**. One of the strongest components of the British industry is the energy sector. The United Kingdom is a net exporter of energy. In addition to oil, the Kingdom has **abundant** reserves of natural gas, coal, and atomic power. Most of the kingdom's energy resources are concentrated in the North Sea.

The UK has a strong manufacturing tradition that goes back to the origins of the Industrial Revolution. In the XIX century the UK was a world leader in producing key materials associated with the Industrial Revolution: coal, steel, textiles, steam engines and ships. The most important manufactured products today are machinery, fuels, chemicals, food, **beverages**, tobacco. The UK is also the major supplier of vehicles, aerospace products, electrical and electronic equipment. The country is responsible for 10 % of the world's export of services, including banking, **insurance**, **stockbroking**, **consultancy** and computer programming. The main export partners are The USA, Germany, France, Ireland, the Netherlands, Belgium and Spain.

Agriculture in The UK is today intensive, highly mechanized and efficient, producing about 60 % of food needs with only 2 % of the labour force. Around two thirds of production is devoted to **livestock**, one third to arable crops. The livestock products include **poultry**, cattle and sheep, milk, meat, eggs and wool. Farmers grow wheat, barley, oats, potatoes, oilseed rape and sugar beets. British farming corresponds to the world's tendencies in agriculture: farmers have to adopt more environmentally friendly methods such as organic farming. It does not use artificial chemicals that can **damage** the environment and human health. There are several types of farming practiced in the UK: arable farming (growing of crops and cereals), pastoral farming (rearing and production of animals) and mixed farming (the combination of arable and pastoral farming). There is also market gardening which is the production of fruits and vegetables.

The United Kingdom of Great Britain and Northern Ireland is one of the most powerful nations and strongest economies in the world. It occurred to be among the world's first industrialized countries.

V. Fill in the table below.

Official name	*The United Kingdom of Great Britain and Northern Ireland*
Capital	
Major cities	
Area	
Population	
Political divisions	
Climate	
System of government	
Segments of industry	
Agricultural products	
International partners	

VI. Find equivalents to the following Russian word combinations in the text.

1. уникальная страна
2. сухопутная граница
3. расположение недалеко от океана
4. с обильными осадками круглый год
5. чрезвычайно изменчивы
6. нынешний монарх

7. выполнять различные официальные и представительские обязанности
8. законодательный орган
9. обсуждение текущих вопросов
10. товарищи по партии
11. богатые запасы природного газа, угля и атомной энергии
12. электрическое и электронное оборудование
13. экспорт услуг
14. высокомеханизированный
15. экологически чистые методы

VII. Match the words to form word combinations. Find Russian equivalents to them.

environmentally	country
interesting	force
Atlantic	programming
making	changeable
temperate	sector
mixed	rainfall
industrialized	friendly
energy	climate
financial	laws
computer	current
plentiful	farming
intended	policy
weather	fact
extremely	centre
labour	conditions

VIII. In the sentences below fill in the appropriate part of speech derived from the word on the right.

1) The weather in the UK is _____, isn't it?	BORE
2) The United Kingdom consists of four _____ divisions.	POLICY
3) The British Isles is a _____ of over 6,000 islands.	COLLECT
4) High temperatures are _____ in the UK.	FREQUENT
5) The weather on the islands is extremely _____.	CHANGE
6) The British Constitution is based both on a parliamentary legislation and law _____.	DECIDE
7) The two houses of Parliament check the work of the _____.	GOVERN
8) The House of Commons is more _____.	POWER
9) Employees join a trade _____in order to have their interests and goals better represented.	UNITE
10) In _____, the Kingdom has reserves of natural gas	ADD

and coal.	
11) The UK is one of the main _____ of aerospace products.	SUPPLY
12) The UK occurred to be among the world's first_____ countries.	INDUSTRY
13) Mixed farming is the _____ of arable and pastoral farming.	COMBINE
14) Market gardening is the _____ of fruits and vegetables.	PRODUCE

IX. Read the text again and answer the following questions.

1. What is the official name of Great Britain?
2. What are the four geographical and political parts of the UK?
3. What are the largest cities of the country?
4. How does the geographical position influence the weather of the British Isles?
5. Why is the UK often said to have an unwritten constitution?
6. Who is the political leader of the country?
7. Who is the official head of the state?
8. What are the functions of the Houses of Parliament?
9. What are the main political parties in the United Kingdom?
10. What are the major segments of the British industry?
11. What are the most important manufactured products in the UK?
12. What services does the country export nowadays?
13. Which types of farming are practiced in the UK?
14. What does the term 'organic farming' mean?

X. Make a plan of the text: put the information below in the right order as it is given in the text. Discuss each point of the plan.

1. Industry
2. Geographical position and population
3. Parliament and political parties
4. Agriculture
5. Political system
6. Official name
7. Climate

THE UK ECONOMY[2]

I. Read the text. Use the dictionary to look up unfamiliar words.

[2] The text is for students studying at the faculty of Economics.

The economy of the United Kingdom is highly developed and market-orientated. It is the sixth-largest national economy in the world measured by nominal gross domestic product (GDP), ninth-largest by purchasing power parity (PPP), and twenty second-largest by GDP per capita, comprising 3.3% of world GDP. In 2016, the UK was the tenth-largest goods exporter in the world and the fifth-largest goods importer. It also had the second-largest inward foreign direct investment, and the third-largest outward foreign direct investment. The UK is one of the most globalised economies, and it is composed of England, Scotland, Wales and Northern Ireland. The country's gross domestic product is $2.743 trillion in 2019.

Service industries account for about two-thirds of the United Kingdom's gross domestic product. More than 70 percent of British workers are employed in service industries. The country's service industries are concentrated in and near its largest cities, especially London.

Finance, insurance, and real property is the most important service industry in Britain. This industry accounts for a larger portion of the United Kingdom's GDP than any other industry. Most of the country's financial companies operate in London, one of the world's leading financial cities. Major financial institutions in London include the Bank of England (1), the United Kingdom's national bank, the London Stock Exchange (2), and Lloyd's of London insurance society (3).

Community, social, and personal services rank second among the service industries in the United Kingdom. This industry employs more British workers than any other service industry. It includes such activities as education and health care, and advertising and data processing.

Wholesale and retail trade is the third most important service industry in Britain. The most valuable wholesale trading activities include the distribution of petroleum and textiles. Aberdeen and London are important centres of petroleum refining and distribution. Leeds is the chief centre of the British clothing industry. Retail trade is centred in London, which has thousands of small shops and attracts millions of tourists yearly. Tourism is another of Britain's important service industries. It is a growing source of income and employment. Other large service industries in the United Kingdom include government, transportation and communication, and utilities.

The United Kingdom is a leading industrial nation. Most British industries are in central England, the London area, the Scottish Central Lowlands, the Newcastle upon Tyne area, and southern Wales. Britain ranks as an important steel producer. It exports nearly half of its finished steel. The rest is used in Britain to make hundreds of products. Much steel is used in automobiles, buses, trucks, and motorcycles. Britain also produces heavy machinery for industry, farming, and mining. The country is one of the world's largest producers of tractors. Other products include cranes, earth movers, road graders, harvesters, and drilling machines. British factories also make railway equipment, household appliances, and machine tools. The city of Sheffield is famous for its high-quality knives and hand tools.

British Aerospace makes a wide range of jet aircraft. It is the largest aerospace company in Europe. Rolls-Royce is world famous for airplane engines as well as luxury automobiles. Space satellites and weapons defense systems are also produced in Britain. Aerospace equipment and heavy machinery are major British exports.

An increasing percentage of Britain's manufactured goods consists of sophisticated electronic equipment. Much of this equipment is exported. Factories

produce such items as cable television equipment, data processing equipment, fibre-optic communications systems, radar devices, and undersea telephone cables.

The chemical industry in Britain produces a variety of products – from industrial chemicals to plastics and soap. Britain is the fourth largest exporter of pharmaceuticals. The country's pottery industry is centred in Stoke-on-Trent. Outstanding names in British pottery include Worcester, Spode, and Wedgwood.

The United Kingdom is one of the world's chief centres of printing and publishing. British companies print paper money and postage stamps for many countries. Books published in Britain are exported to countries throughout the world.

The Industrial Revolution began in Britain's textile industry. Today, Britain remains an important producer of cotton and woollen textiles. British manufacturers also make synthetic fibres and fabrics. England's east Midlands region is a centre for the production of lace and knitwear. Cotton and wool are produced in northern England. Scotland produces knitwear and is famous for its fine woollen products. Northern Ireland has a world-wide reputation for its linen goods.

Britain has one of Europe's largest clothing industries. The biggest centres are Leicester, Leeds, London, and Manchester. British clothing has long been famous for its quality. But today, Britain imports more clothing than it exports because many countries with lower labour costs can produce clothing more cheaply than the British can.

Processing of foods and beverages ranks as one of Britain's major industries. Most processed foods and beverages are consumed in Britain. But some are exported. Scotch whisky has a large world market. Other British industries manufacture bricks and cement, furniture, leather goods, glassware, and paper.

Britain imports about a third of its food supply. The imports include avocados, bananas, oranges, peppers, pineapples, and other items that cannot be easily grown in Britain's climate.

The United Kingdom has about 240,000 farms. About two-thirds of Britain's farmers own the farms on which they live. The rest rent their farms. About half the people who operate or work on farms do so on a part-time basis. Many British farmers practice mixed farming - that is, they raise a variety of crops and animals. Methods of mixed farming vary from farm to farm. In the rough highlands of Scotland, Wales, and western England, grass grows much better than farm crops. There, farmers use most of their land for grazing. The land in southern and eastern England is drier and flatter, and it is more easily worked. Farmers in eastern England use most of their land for raising crops.

Britain's most important crops are barley, potatoes, sugar beets, and wheat. Farmers in southern and eastern England grow almost all the country's sugar beets, and wheat and most of its barley. Potatoes are grown throughout the United Kingdom. Farmers in southern England grow most of Britain's fruits and garden vegetables. One of the most productive regions is the county of Kent in south-eastern England. It is called the Garden of England and is famous for the beautiful blossoms of its apple and cherry orchards in springtime. Farmers in Kent also grow hops, which are used in making beer.

Sheep are Britain's chief livestock. Farmers in almost every part of the country raise sheep for meat and wool. British farmers also raise beef cattle, dairy cattle, and hogs. Chickens are raised mainly in special mass-production plants.

The United Kingdom is a major world producer of petroleum, coal, and natural gas. These three fuels account for about 85 percent of the value of total mineral

production in the country. Petroleum is Britain's most valuable mineral. British oil wells produce about 650 million barrels of petroleum a year. In the past, the country had to import petroleum to meet its needs. But during the 1970's, Britain began producing petroleum from wells in the North Sea. Today, Britain's oil wells provide nearly all the petroleum that the country uses and also supply petroleum for export.

Britain's largest coal-mining region lies near the River Trent in central England. Coal from this area is an important source of fuel for the country's electric power plants. Britain obtains natural gas from deposits below the North Sea. These deposits provide enough gas to meet most of the country's needs. Britain's next most important minerals, in order of value, are sand and gravel, limestone, and clays. The Southwest Peninsula has fine china clay, used in making pottery. South-eastern England has large deposits of chalk, used for cement. Other British minerals include sandstone and gypsum.

The United Kingdom ranks as a leading trading nation. Britain once imported chiefly raw materials and exported mostly manufactured products. However, manufactured goods now account for about three-fourths of British imports and also about three-fourths of its exports. Britain exports aerospace equipment, chemicals and pharmaceuticals, machinery, motor vehicles, petroleum, and scientific and medical equipment. Its imports include chemicals, clothing, foods (especially fish, fruit, vegetables, meat, coffee, and tea), machinery, metals, motor vehicles, paper and newsprint, petroleum products, and textiles.

Most of the United Kingdom's trade is with other developed countries. France, Germany, and the United States are Britain's leading customers and suppliers. A growing proportion of the country's trade is with members of the European Union. Other trade partners include Canada, Ireland, Japan, Norway, Saudi Arabia, Sweden, and Switzerland.

The value of Britain's imports of goods usually exceeds the value of its exports. British banks and insurance companies make up part of the difference by selling their services to people and firms in other lands. Another important source of income is the spending by the more than 15 million tourists who visit the United Kingdom each year. The British merchant fleet also brings in money by carrying cargoes for other countries. The income from all these invisible exports exceeds $200 billion a year.

Roads and railways carry most passenger and freight traffic within the United Kingdom. An excellent system of high-speed motorways links major cities and towns. Bus systems provide local and intercity transportation. Lorries carry about 80 percent of the inland freight. An extensive rail network crisscrosses the United Kingdom. The railroads are owned by the government and provide excellent high-speed passenger service, as well as freight hauling.

Britain has a large merchant fleet. The ships in the fleet carry British-made goods to ports throughout the world and bring back needed imports. British ships also carry freight for other countries. There are about 80 ports of commercial significance throughout the United Kingdom. The country's inland waterways are used to carry freight, as well as for recreational boating. The Thames, which flows through London, is Britain's busiest river and one of the busiest in the world.

British Airways, the United Kingdom's largest airline, operates flights to all parts of the world. Smaller airlines provide service within Britain and to other countries. Britain's largest airports are Heathrow and Gatwick, both near London, and those at Birmingham, Glasgow, and Manchester.

Britain has about 100 daily newspapers. About 15 have nation-wide circulation. Their main offices are in London. The Sun and the Daily Mirror have the largest circulations. Other leading papers include The Times, The Guardian, The Daily Telegraph, and The Independent.

The British Broadcasting Corporation (BBC), a public corporation, provides commercial-free radio and television service. The BBC is financed chiefly by yearly licenses that people must buy to own a television set. Television stations controlled by the Independent Television Commission and radio stations controlled by the Radio Authority broadcast commercials.

II. Group the following words into nine synonymous groups.

aggregate external leading national
cheap foreign low-cost naval
chief gross low-priced overseas
commercial important main significant
complex inexpensive major sophisticated
domestic inland marine total
entire international mercantile trading

III. Read the following text and find synonyms for the highlighted words.

The **leading** position of British commerce in world trade during the 18th and 19th centuries resulted largely from the geographical isolation of the British Isles from the wars and political troubles that afflicted the centres of trade on the European continent. The development of the great **trading** companies, colonial expansion, and **naval** control of the high seas were corollary factors. Before the 17th century the **foreign** trade of England was almost completely in the hands of foreigners; wool was the principal export, and manufactured goods were the chief imports. Under the **mercantile** system, which in Great Britain was the prevailing economic theory of the 17th and 18th centuries, the government fostered British **foreign** trade, the development of shipping, and trading companies. As British overseas possessions increased, the raising of sheep for wool and mutton became a major occupation in the colonies; the practice of exporting wool from England and importing manufactured woollen articles was gradually replaced by the import of wool and the manufacture and export of yarns and fabrics. Cotton textiles, iron and steel, and coal soon became **significant** British exports.

IV. Group the words that follow into six antonymous groups.

cheap full-time low personal
expensive high national public
foreign invisible part-time visible

V. Fill in the blanks in this passage, using the words from the list.

companies goods land
countries government petroleum
crops imports trade

economy industry workforce

The United Kingdom has a developed mixed private and public-enterprise (1) that is largely based on services, especially international trade, and manufacturing. The (2) controls the production of coal, steel, and ships; it also runs certain utilities, the railways, and most civil aviation. The gross national product (GNP) is growing faster than the population, but only slowly. The GNP per capita lags behind those of most other western European (3).

Agriculture accounts for less than 2 percent of the GNP and employs some 2 percent of the (4). Farming is highly mechanized, though farms are not extremely large, and is dominated by the raising of sheep and cattle. Pastures cover about one-half of the land. Arable (5) is limited to less than one-third of the nation's land area, and the United Kingdom is not agriculturally self-sufficient. Chief (6) include barley, wheat, sugar beets, and potatoes.

The mineral (7) accounts for approximately 6 percent of the GNP but employs less than 1 percent of the workforce. Production from oil fields in the North Sea has allowed the United Kingdom to become virtually self-sufficient in (8). The United Kingdom's coal industry, despite its steady decline since the early 1950s, remains one of the largest and most technologically advanced in Europe.

Manufacturing industries account for one-fifth of the GNP and employ a similar proportion of the workforce. Small (9) predominate, though companies with 500 or more employees employ a larger percentage of the workforce. Major manufactures include motor vehicles, aerospace equipment, electronic data-processing and telecommunication equipment, metal goods, precision instruments, petrochemicals, and other chemicals.

Exports of (10) and services account for as much as a third of the GNP, and the British merchant navy remains one of the world's largest. The European Union, which the United Kingdom joined in 1973, accounted for nearly half of the country's (11) before brexit. Exports to Commonwealth countries also represent a significant share of the United Kingdom's total exports and ordinarily exceed (12).

WELCOME TO BREST STATE TECHNICAL UNIVERSITY!

I. Read the following words and word combinations. Learn their meaning.

1)	training	подготовка
2)	conduct research work	проводить исследовательскую работу
3)	construction	строительство
4)	mechanical engineering	машиностроение
5)	full-time students	студенты дневного отделения
6)	teaching staff	преподавательский состав
7)	graduate	выпускник
8)	Civil Engineering	ПГС
9)	LLC	ООО
10)	extra-mural	заочный
11)	degree	степень
12)	dormitory	общежитие

II. Read the text about BrSTU and decide whether it is a one of the best universities in our country. Prove your opinion.

INTRODUCTION

Brest State Technical University is one of the largest scientific and educational centres in the western part of the Republic of Belarus. BrSTU enables **training** of highly qualified specialists and **conducts** fundamental scientific **research work** in the fields of **construction**, architecture, electronics, **mechanical engineering**, economy and ecology.

BRIEF HISTORY

Brest State Technical University began as a Civil Engineering Institute on April 1, 1966. The first intake was 330 full-time students and 110 evening-class students. The teaching staff numbered 32 teachers. In 1969 the number of students reached 2700, namely 1960 **full-time students**, 480 evening-class students, 260 part-time students. The **teaching staff** increased till 186 teachers. In 1989 the institute was reorganized into Brest Polytechnic Institute. Since then Mechanical Engineering and Electronics Department and Economical Department were opened, new specialties appeared; the spectrum of research work has expanded. Now it is the largest technical institution of higher learning in the western region of Belarus. In 2000 Brest Polytechnic Institute was incorporated as a State Technical University. Since its foundation more than 43000 specialists have graduated from the University. At present it is a large educational and scientific centre with its teaching staff, scientists and **graduates** contributing a lot to the development of science and engineering.

GENERAL INFORMATION

Faculties

Being one of the largest educational and scientific centres in the western part of Belarus Brest State Technical University has a broad and constantly developing infrastructure. The training is conducted at 7 faculties:

1) Civil Engineering Faculty

Civil Engineering is one of the oldest faculties of the university. More than 1,300 students study there. The faculty is a part of the International Association of Construction Departments, within the framework of which introduction of new technologies in educational process for training of construction industry specialists is conducted. Students learn to design buildings, organize construction work, build roads and airfields and conduct real estate expertise. You may also become an Architect here, at Faculty of Civil Engineering.

2) Faculty of Engineering Systems and Ecology.

The faculty was established in 1971, its first name was Amelioration. The system of teaching at the faculty combines general theoretical and general engineering training with deep special training. All departments of the faculty have well-equipped laboratories and offices. They are equipped with the latest technical teaching aids, computing techniques, equipment. In the process of teaching students learn about ecological problems, organization of safety activity, and the introduction of effective technologies for natural and waste water purification.

3) Faculty of electronic information systems.

The faculty was established in 2005 as a result of reorganization of the Faculty Mechanical Engineering and Electronics, which had existed since 1984, on the basis of specialties of the electronic information profile. Many professors of the faculty are fluent in English, have repeatedly undergone scientific and training course abroad, and have been conducting their courses in English for many years for students who come to the university with a help of various international exchange programs, undergraduate and graduate students. Since 2013/14 academic year, a group of students (foreign and Belarusian ones) is being trained for the specialty "Automatic Data Processing Systems", the training is conducted in English. Successful graduates of the faculty are offered job positions and also they can find a job independently at the best IT enterprises of Brest and the Republic of Belarus, which are residents of the High Technologies Park: LLC "Epol Soft", EPAM systems inc., LLC "Tectus Media", etc.

4) Mechanical Engineering Faculty

The Faculty of Mechanical Engineering was established as an electronic mechanical faculty in 1984 with the view of training highly-qualified personnel for the machine-building and electronic industries that are high developing in the western region of the Republic of Belarus based on the specialty "Machine-Building Technologies". The electronic-mechanical faculty was reorganized on August 15, 2005 as a result of which the Faculty of Mechanical Engineering was established. Mechanical Engineering Faculty trains engineers of practical orientation: technologists, designers, mechanics, automation specialists in the field of industrial production, road transport, food production and other branches of the national economy.

5) Faculty of Economics

The Faculty of Economics was established on the 1st of February, 1995. The faculty trains specialists for various fields of economic activity. Effective partnership with many enterprises and organizations of the city have been established, which gives an opportunity to have off-site classes, carry out real course and diploma papers, effectively organize production practice.

6) Faculty of Extra-Mural Studies

The Faculty offers an extensive **extra-mural** programs both in engineering and economics. Within six years of studies it is possible for the students with full time employment to obtain a Specialist's Diploma. The Faculty employs distance learning and e-learning facilities to accompany the students in perusing their degrees.

7) Faculty of Innovation, Management and Finance

The Faculty offers fast track blended courses for the holders of a vocational education and training certificate in technology or economics. In the academic process the Faculty incorporates elements of distance and e-learning technologies.

The Department of Pre-University Training

At the Department of Pre-University Training young people can revise and consolidate what they have learnt at secondary school to successfully pass their entrance examinations at the University. Here they are also provided with the guidance in the choice of their future speciality and prospects of professional career. The Faculty offers a wide range of programs to satisfy various demands of young people seeking for extensive study curriculum:

- evening and extramural preparatory courses for high school students; the courses optionally cover mathematics, physics, a foreign language, drawing, and technical drawing;
- short-term pre-university courses covering one subject at a student's option;

• a full-time or correspondence pre-university course for holders of a secondary education certificate; the course covers several subjects at a student's option;

• a full-time pre-university for international students.

International students who have no command of the Russian language or whose Russian language proficiency may not yet have reached a suitable standard for study can follow a one-year course at the Pre-University Department. The course provides students with elementary and advanced learning of the Russian language with a specialization in the subjects which are relevant to the students' chosen line.

The students get higher education in 21 specialities and 29 specializations. The total student population is about 12, 000 people. The training course lasts 4 years and 10 months (or 3 years and 10 months) for full-time students while 5 years and 10 months (or 4 years and 10 months) for part-time students.

Professional and Teaching Staff

The teaching staff numbers more than 500 members. The scientific potential of the University includes 14 Doctors of Science, 152 Candidates (Ph.D.) and experienced academic instructors. Some of them are the scientists known all over the world.

Development Tendencies

One of the main priorities in the University development is further supply of the teaching process with necessary computing equipment and software in addition to the available ones. The university has already got a local computer network of more than 460 computers at all the faculties, departments, scientific centres and specially equipped classrooms. So, the students and the University stuff are provided with access to the shareable campus database as well as Internet through satellite and inland channels. In compliance with the above stated priority a lot is being done to introduce advanced technologies into the teaching process for teaching and testing applications. The campus-based Institute of Professional Development and Re-Training gives the University students an opportunity to get a second Diploma of higher education in the line chosen. This enables the University graduates to be awarded with two Diplomas and get qualification in two specialities. It is evident that our future progress depends on the creation of new high technologies and technical equipment of superior quality. Everything will be determined by engineering and a standard of professional training.

Besides, the development of the University is adapted to satisfy the needs of the Belarus Republic and of Brest region in specialists:

- The conditions are being created for highly-qualified training of economists and managers;
- The range of new specialties connected with electronics and computers is being expanded;
- The Scientific Research Institute for the problems of Construction Engineering organized in May 2004 is successfully being developed;
- The process of reformation of the system of the University is being carried out to offer Master and Bachelor programs.

The University main research lines are the following:

- building units and materials, roof coatings, pavements, organization of labour, techniques, design engineering;
- wear-resistant composite materials, resource-saving and material-strengthening technologies in mechanical engineering;
- novel technologies of fuel utilization;

- advanced water distribution and water supply systems, rational nature management schemes;
- environmental protection, ecological security;
- neuron-type computer network systems of artificial intellect; ultrasound technologies, luminescent light-emitters.

University Facilities

BSTU is almost a fifty-year-old educational establishment with its own traditions which are followed by the University staff in its work by combining science, studies and practice to their best advantage. The University has created all necessary conditions for forming and educating specialists understanding their responsibility and possessing knowledge and competence required for successful creation of the country's future. High-quality technology and successful studying are made possible by the currently available educational facilities: many workshops, laboratories, computer classes fitted out with up-to-date equipment and devices, and a library having a stock of more than 400000 books by native and foreign writers. The campus-based Research Institute was set up to carry out research work on the problems in the construction industry of the country. The specialists of the Institute among whom are the University academic staffs and senior students take an active part in the reconstruction of Brest and rehabilitation of the town's old buildings. Diploma design projects of our students range high at international competitions and research works are awarded with first- and second-**degree** Diplomas at republican competitions of research works. Some university students take out patents on their inventions and participate in arranging trial production.

Non-Academic Opportunities

On the university campus there are **dormitories** with all conveniences (shared occupancy in double/triple adjacent rooms). The University has well-developed social services available on the campus. Excellent athletic and recreational facilities are also available on the campus. There are 14 sport societies for those who want to keep themselves fit and enjoy their free time. The University rents modern sports complexes and provides gyms and table-tennis rooms on the campus. Annually, our students take part in open competitions and championships in Belarus and become prize-winners in karate, power-lifting, boxing, arm-wrestling.

Canteens

Canteens provide students and employees with healthy food. On the campus there are also two student cafes, which will offer you varied menu at accessible prices. Located on the campus, the café “Zodchie” provides freshly made hot and cold food.

Hostels

University disposes of four comfortable student hostels, which have gyms, rooms for studies and rest.

Dispensary

Huge attention is paid to student’s health. On the territory of the campus there is sanatorium-dispensary, where students have an opportunity to improve their health. You will be offered various types of massage, electro- and phototherapy, inhalation therapy, mineral and medical bath.

Students' festivals and performances as well as various societies run by the ***Students' Club*** and the International Students' Club help students to spend their free time to the best advantage and reveal their creative abilities.

International Contacts

The University develops close contacts with higher educational establishments in Germany, Poland, Ukraine, China, Republic of Korea, France and Russia. We have long-term partner contacts with Bialystock Polytechnic Institute (Poland), Lublin Polytechnic Institute (Poland), Higher Technical Professional School in Biberach(Germany) and Higher Technical School in Ravensburg-Weingarten (Germany), Middle East Technical University (Turkey).This partnership creates an essential basis for mutually useful training activity and scientific research.

Brest State Technical University actively participates in numerous international projects and programs, communicates with educational and scientific funds including European ones - TACIS, ERASMUS,

The University is a member of the Association of European Civil Engineering Faculties with the participation of civil engineering faculties from non-European countries, AECEF. In 2009 BrSTU joined the Baltic Sea Academy, Hamburg-based organization that unites European universities and academies, with the aim to intensify the University's international cooperation.

The University participates in international innovation exhibitions in Hannover and Saint Petersburg. Research in IT, architecture and construction are carried out at the University. International conferences and seminars are held in the areas of electronics, architecture and construction, ecology, economy, mechanical engineering.

All the above mentioned international partnerships and relations create an essential basis for mutually useful academic activity and scientific researches.

CONCLUSION

The graduates of Brest State Technical University have opportunities to carry out their creative activity in science, engineering and private business in all sectors of our economy as well as of foreign countries. After graduating from Brest State Technical University, a number of students become promising scientists, some of them continue their scientific activity at the University delivering lectures and supervising new lines of scientific research. The university is constantly developing, that's why it has turned into one of the leading educational and scientific centres in the western part of Belarus.

III. Make presentation about your faculty. You may use information from the English version of official BrSTU website *http://en.bstu.by*.

IV. Write a letter to student studying at foreign university. Describe:

- Structure of your university
- Your faculties
- Specialties and specialization
- Period of studying
- Your favourite teachers
- Subjects studied at your faculty
- Extra-curricular activities.

V. Translate the following quotations and comment upon them.

Education is an admirable thing, but it is well to remember from time to time that nothing that is worth knowing can be taught.

Oscar Wilde

I have no special talent. I am only passionately curious.

Albert Einstein

The philosophy of the school room in one generation will be the philosophy of government in the next.

Abraham Lincoln

A person who won't read has no advantage over one who can't read.

Mark Twain

Education is the most powerful weapon which you can use to change the world.

Nelson Mandela

The function of education is to teach one to think intensively and to think critically. Intelligence plus character - that is the goal of true education.

Martin Luther King

The roots of education are bitter, but the fruit is sweet.

Aristotle

Education is for improving the lives of others and for leaving your community and world better than you found it.

Marian Wright Edelman

An investment in knowledge pays the best interest[3].

Benjamin Franklin

Give a man a fish and you feed him for a day; teach a man to fish and you feed him for a lifetime.

Maimonides

Education must not simply teach work – it must teach Life.

W. E. B. Du Bois

Formal education will make you a living; self-education will make you a fortune.

Jim Rohn

You can teach a student a lesson for a day; but if you can teach him to learn by creating curiosity, he will continue the learning process as long as he lives.

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[3] Intrest - банковский процент по вкладу.

Clay P. Bedford

BENEFITS OF EDUCATION

I. Look through the sayings of famous people. Explain how you understand their words.

1) *An investment in knowledge pays the best interest.* (Benjamin Franklin)
2) *Education is what remains after one has forgotten what one has learned in school.* (Albert Einstein)
3) *Education is the most powerful weapon which you can use to change the world.* (Nelson Mandela)

II. Read the following words and learn their meaning.

1)	aspect	аспект, сторона
2)	to allow	позволять
3)	opportunity	возможность
4)	to develop	развивать
5)	to devote to	посвящать
6)	benefit	преимущество, польза
7)	ultimate	окончательный
8)	to enroll in	зачислять в
9)	generation	поколение
10)	society	общество
11)	to contribute to	делать вклад в
12)	wages	заработная плата
13)	device	устройство, прибор
14)	government	правительство
15)	to advance	идти вперёд
16)	improvement	улучшение
17)	life expectancy	продолжительность жизни
18)	to gain	получать, приобретать

III. Match the words in the box with definitions 1-12.

to support	***significant***	***promotion***	***discovery***	
income	***to affect***	***to encourage***	***vital***	
free	***citizenry***	***poverty***	***compulsory***	

1) to provide the necessities of life
2) money which one receives regularly as payment for work or interest from investments
3) having noticeable importance, effect or influence
4) advancement to a more important rank or position
5) costing nothing, without payment of any kind
6) to influence, to cause some change
7) a group of people who live in a particular city, town, country

8) finding something for the first time
9) to help someone feel able to do something
10) the condition of being extremely poor
11) extremely important
12) something that must be done by law or rules

IV. Read the text. Use the dictionary to look up unfamiliar words.

Education is an important **aspect** that plays a huge role in the modern world. It helps us build opinions on different things in life, make right decisions and understand reality better. It gives us knowledge about the world around us. Education does not only **allow** people to read or write, but also offers them the **opportunity** to have a good life, communicate better, **develop** new technologies and **support** the economy.

Each of us **devotes** a big part of our life **to** education. It starts from childhood, where kids learn everything from what is happening around them. The whole education can be divided into three divisions: primary education, secondary education and higher education. All these divisions have their own importance and **benefits**. Primary education prepares the base which helps throughout the life, secondary education prepares the path for further study and higher education prepares the **ultimate** path to the future.

Primary and secondary education is free and **compulsory** in many countries around the world. In most countries education is compulsory up to the age of 16. Hardly anyone can realize that about 61 million children in the world are not **enrolled in** primary school. Of these kids, 40 million live in **poverty**. It is hard for those people living below the poverty line to even imagine sending their kids to school because education is not **free**. If there is a choice between eating a meal and educating a child, most families choose eating a meal. Boys are often kept out of school so they can work and bring in money for the family, while girls cook and do other things that are needed to keep the family functioning.

Fortunately, more and more people understand how important education is for future **generations**. If there is a deficit of educated people the **society** can't develop. Education **contributes to** individual and social benefits, such as higher **wages**, greater life satisfaction, higher national **income**, healthier population and a better functioning society. It produces **significant improvements** in health, and **life expectancy**. Countries with an educated **citizenry** are more likely to be democratic and politically stable. Moreover, educated people can effectively contribute to the development of their country by making **discoveries** in various spheres, inventing new **devices** or producing new medicines to cure people. That is why the **governments** of the majority of countries realize the importance of education and pay serious attention to it. Governments all around the world spend money on good education systems, and people are actively **encouraged** to win scholarships and continue their studies.

And what is the importance of education for individuals? Whether a person is living in poverty or among the wealthiest in the world, education is necessary **to advance** in any situation. It is becoming one of the main factors for a person's success in today's society. It develops confidence and builds personality of a person.

What can you do to improve and grow in your career? When it comes to self-improvement, we know a lot of methods. To get fit, you eat right and exercise. To grow your physical strength, you train and lift weights. To improve your memory, you get enough sleep and learn new things. To grow in your career, you've got to deepen your knowledge and **gain** new skills. People agree that education is the best investment because well-educated people have more opportunities to get a good job which is well-paid. They enjoy respect among their colleagues and have more hopes for **promotion**. So education is the most powerful tool to improve your career.

No matter how difficult it can be to study, it's **vital** to remember that education is a privilege that every person should appreciate. It **affects** our lives significantly and offers us lots of opportunities. It's our choice to use them or not, but it's better to have this choice.

V. Find the equivalents to the following Russian word combinations in the text.

1. принимать правильные решения
2. развивать новые технологии
3. поддерживать экономику
4. путь для дальнейшего обучения
5. черта бедности
6. будущие поколения
7. нехватка образованных людей
8. удовлетворённость жизнью
9. политически стабильный
10. выигрывать стипендию
11. пользоваться уважением среди коллег
12. приобретать новые навыки

VI. Complete the sentences with correct prepositions.

a) Education helps us build opinions _____ different things in life.
b) Education is an important aspect that plays a huge role _____ the modern industrialized world.
c) Each of us devotes a big part of our life _____ education.
d) The whole education can be divided _____ three divisions.
e) Higher education prepares the ultimate path _____ the future.
f) Secondary education is free and compulsory _____ many countries.
g) About 61 million children in the world are not enrolled _____ primary school.
h) It is hard for those people living _____ the poverty line to even imagine sending their kids to school.
i) Education contributes _____ individual and social benefits.
j) The governments of the majority of countries realize the importance _____ education.
k) Governments all around the world pay serious attention _____ education and spend money _____ good education systems.
l) Education is becoming one of the main factors for a person's success _____ today's society.
m) Well-educated people enjoy respect _____ their colleagues.

VII. Match the words to form word combinations. Give Russian equivalents to them.

life	Stable
industrialized	scholarships
to make	devices
higher	studies
national	education
politically	decision
to continue	expectancy
to win	skills
significant	world
to deepen	improvement
to invent	income
to gain	knowledge

VIII. Complete the sentences using the words in bold from the text.

1. Education offers people the opportunity _____ new technologies.
2. Education is an important _____ that plays a huge role in modern world.
3. Primary and secondary education is _____ in many countries.
4. Higher education prepares the _____ path to the future.
5. Education contributes to a better functioning _____.
6. Education is important for future _____.
7. _____ all around the world spend money on good education systems.
8. Education produces significant _____ in life expectancy.
9. Well-educated people have more hopes for _____.
10. To improve your career you've got _____ new skills.

IX. Read the text again and answer the following questions.

1) When does education start in person's life?
2) What is the role of primary education on in our life?
3) Is secondary education compulsory in most countries?
4) Why do children in poor countries have no opportunity to attend primary school?
5) Does the level of education influence the political life of a country?
6) How can educated people contribute to the development of their country?
7) What social benefits of education are listed in the text?
8) Why is education considered to be the best investment?
9) How can education improve your career?
10) Education is a privilege that every person should appreciate, isn't it?

X. Do you know when the International Day of Education is celebrated? When was it proclaimed? Find this information and try to formulate the aims of celebrating the International Day of Education.

Great Britain

Vocabulary

I. Pronounce the following words and word collocations:

appoint [ə'pnt]ɔı – назначать
barley ['bɑ:lı] – ячмень
beef cattle [bi:f 'kætl] – мясной скот
criticize ['krıtısaız] – критиковать
current ['kʌr(ə)nt] – течение
customer ['kʌstəmə] – покупатель
dairy cattle ['deərı 'kætl] – молочный скот
defeat [dı'fi:t] – разрушать, отменять
delay [dı'leı] – откладывать, задерживать
division [dı'vıʒən] – деление
drilling machine ['drılıŋ mə'ʃi:n] – сверлильный станок
emerge [ı'mə:dʒ] – появляться
explorer [ıks'plɔ:rə] – исследователь
fellow ['feləu] – товарищ
general election ['ʤen(ə)r(ə)l ı'lekʃ(ə)n] – всеобщие выборы
harvester ['ha:vıstə] – уборочная машина
hog [hɔg] – свинья, боров, хряк
household appliances [haushəuld ə'plaıənsız] – бытовая техника
influence ['ınfluəns] – влияние, влиять
join [dʒ] nɔı – присоединяться
lawmaking body ['lɔ:ˌmeıkıŋ 'bɔdı] – законодательный орган
legislature ['leʤısleʧə] – законодательная власть
live-stock ['laıvstɔk] – домашний скот
mild [maıld] – мягкий
monarch ['mɔnək] – монарх
occupy ['ɔkjupaı] – занимать
oppose [ə'pəuz] – выступать против
pick [pık] – выбирать
powerful ['pauəful] – сильный
rape seed [reıp si:d] – рапс
rapid ['ræpıd] – быстрый, резкий
refer [rı'fə:] – относиться, иметь отношение
refresh [rı'freʃ] – освежать
remain [rı'meın] – оставаться
resource [rı'sɔ:s] – ресурсы, возможность
salary ['sælərı] – жалованье, оклад
sugar beet ['ʃugə bi:t] – сахарная свекла
supplier [sə'plaıə] – поставщик
support [sə'pɔ:t] – поддерживать
survive [sə'vaıv] – пережить, уцелеть
trade union [treıd 'ju:njən] – профсоюз
urban ['ɜ:b(ə)n] – городской

II. Pronounce the following geographical names:

Birmingham

Manchester
Wales
British Isles
the Thames
the Gulf Stream
Saudi Arabia
Switzerland
Sweden

III. Read the text.

The United Kingdom is a country in northwestern Europe. The nation's official name is the United Kingdom of Great Britain and Northern Ireland. When people refer to the country, most of them shorten its name to the United Kingdom, the U.K., Great Britain, or Britain. The United Kingdom consists of four political divisions - England, Scotland, Wales and Northern Ireland. London is the capital and the largest city. The United Kingdom occupies an area of over 244,000 sq km and has a population of over 58 million. About 90 percent of the population of the United Kingdom lives in urban areas. The most important cities are London, Birmingham, Liverpool, Manchester, and Leeds.

The United Kingdom covers most of an island group called the British Isles. The British Isles consist of two large islands - Great Britain and Ireland - and thousands of small islands. England, Scotland, and Wales occupy the island of Great Britain. Northern Ireland occupies the north-eastern part of the island of Ireland. Britain's longest rivers are the Severn and the Thames. Bristol, Liverpool, London, and other cities are important ports.

The United Kingdom has a mild climate. The climate is influenced by the Gulf Stream, a warm ocean current that flows past the British Isles. Steady southwest winds blow across this current and bring warmth in winter. In summer, the ocean is cooler than the land. Winds over the ocean come to Britain as refreshing breezes. The sea winds also bring plentiful rain. The United Kingdom has rain throughout the year, and rarely is any section of the country dry for as long as three weeks.

The United Kingdom has a rich history. The British started the Industrial Revolution, a period of rapid industrialization that began in the 1700 s. They founded the largest empire in history. They have produced some of the world's greatest scientists, explorers, artists, and political leaders.

The United Kingdom is a constitutional monarchy. Queen Elizabeth II is the head of the state, but the cabinet of senior politicians called ministers actually governs the country. The prime minister is the head of the government.

The Constitution of the United Kingdom is not one document, as are the constitutions of many other countries. Much of it is not even in writing, and so the country is often said to have an unwritten constitution.

Parliament makes the laws of the United Kingdom. The British Parliament has been called the Mother of Parliaments because many of the world's legislatures have copied features from it.

Parliament is the chief lawmaking body. It consists of the monarch, the House of Commons, and the House of Lords.

Of the two houses that make up Parliament, the House of Commons often called simply the Commons, is by far the more powerful. The House of Commons has 651

members, elected from the four divisions that make up the United Kingdom. A general election must be held at least every five years.

The House of Lords, often called the Lords, was once the strongest house of Parliament, but today it has little power. It can delay, but not defeat, any bill that the Commons is determined to pass. The House of Lords has about 1,200 members. The people do not elect them.

The two largest political parties in the United Kingdom are the Conservative Party and the Labour Party. The Conservative Party developed from the Tory Party, which began in the late 1600's. It has always been one of the main parties in Britain. The Labour Party began in 1900. Much of its support comes from labour unions, called trade unions.

For many years, another party, called the Liberal Party, was the Conservative Party's chief opponent. It developed from the Whig Party, which emerged in the late 1600's. But by the mid-1930's, the Liberal Party had become much smaller than either the Conservative or the Labour party. The Prime Minister is usually the leader of the political party that has the most seats in the House of Commons. The king or queen appoints the prime minister after each general election. The prime minister selects about 100 ministers. From them, the prime minister picks a special group of about 20 ministers to make up the Cabinet. The largest political party in the House of Commons that opposes the party in power is called Her (or His) Majesty's Opposition. The head of that party is the leader of the opposition. The leader is elected by his or her fellow party members but is paid a salary from the government funds. The opposition has the duty of criticizing the government in power and standing ready to set up a new government. For this reason, the leading members of the opposition party are popularly referred to as the Shadow Cabinet.

The United Kingdom is an important manufacturing and trading nation. In fact, Britain can survive only by manufacturing and trading. The country's farms produce only about two-thirds of the food needed by the people. Except for coal, natural gas, and oil, Britain has few natural resources. The country must import about a third of its food and many of the raw materials it needs for manufacturing.

The country is one of the world's largest producers of tractors. Other products include cranes, earth movers, road graders, harvesters, and drilling machines. British factories also make railway equipment, household appliances, and machine tools.

The Industrial Revolution began in Britain's textile industry. Today Britain remains an important producer of cotton and woolen textiles.

Many British farmers practice mixed farming - that is they raise a variety of crops and animals. Britain's most important crops are barley, potatoes, rapeseed, sugar beets and wheat. Sheep are Britain's chief live-stock. Farmers in almost every part of the country raise sheep for meat and wool. British farmers also raise beef cattle, dairy cattle, and hogs. Chickens are raised mainly in special mass-production plants.

Most of the United Kingdom's trade is with other developed countries. France, Germany, and the United States are Britain's leading customers and suppliers. A growing proportion of the country's trade is with the members of the European Community, which the United Kingdom joined in 1973. Other trade partners include Canada, Ireland, Japan, Norway, Saudi Arabia, Sweden and Switzerland.

IV. Find one synonym to the first word in each row.

powerful – important – strong –fresh

delay – postpone – occupy – refer

support – defeat – mind – help
emerge – leave – appear – appoint
pick – join – take – oppose
salary – fare – fine – payment
resource – wealth – finance – income

V. Find the suitable meaning to each of the words:

1. survive – a) dividing or being divided
2. remain – b) assembly which makes laws
3. division – c) continue to live or exist
4. plentiful – d) higher in rank, authority
5. rapid – e) in large quantities
6. senior – f) moving, happening with great speed
7. legislature – g) be still present

VI. Complete the following sentences:

1. The United Kingdom is a country in _____.
2. The U.K. occupies an area of over _____.
3. The U.K. covers most of an island group called_____.
4. The British Isles consist of two large islands - _____.
5. The U.K. has a _____.
6. The sea winds also bring _____.
7. The U.K. has a _____.
8. The country must import _____.
9. A general election must be held at least _____.
10. Many British farmers practice _____.

VII. Translate the sentences into Russian. Pay attention to the Infinitive.

Example: The country is often said to have an unwritten constitution. Часто говорят, что в стране нет конституции в письменном виде.

1. A general election must be held at least every five years.
2. The House of Lords can delay, but not defeat, any bill that Commons is determined to pass.
3. From them, the prime minister picks a special group of about 20 ministers to make up the Cabinet.
4. Much of it is not even in writing, and so the country is often said to have an unwritten constitution.
5. His duty is to inform everybody immediately.
6. The opposition has the duty to criticize the government in power and standing ready to set up a new government.
7. Britain can survive only by manufacturing and trading.

VIII. Insert the missed parts of the sentences:

1. Great Britain covers most of an _____ called the British Isles.
2. The U.K. has _____ throughout the year.
3. The British started the _____ in the 1700s.
4. A cabinet of senior politicians called ministers actually _____ the country.

5. The Constitution of the U.K. is not one _____, as are the constitutions of other countries.

6. Parliament makes the _____ of the country.

7. The House of Lords was once the _____ of Parliament.

8. The Prime Minister is usually the _____ of the political party that has the most seats in the House of Commons.

9. The king or queen appoints the _____ after each general election.

10. The U.K. is an important _____ and trading nation.

IX. Answer the following questions:

1. What is the official name of Great Britain?
2. Where are the British Isles situated?
3. What are the four political divisions of the United Kingdom?
4. Why does the United Kingdom have a mild climate?
5. What can you say about the state organization of the United Kingdom?
6. Why is the British Parliament called the Mother of Parliaments?
7. What are the main political parties in the United Kingdom?
8. What is the ruling political party in Great Britain at present?
9. Who is the prime minister in the United Kingdom nowadays?
10. Who was the first woman to hold the office of the prime minister of the United Kingdom?
11. Does the United Kingdom rank among the top industrial countries?
12. What British industry did the Industrial Revolution begin in?

X. Discuss the following points of the text in the form of a dialogue. Use all types of questions.

<u>Example:</u>

1. Does the United Kingdom consist of four political divisions?
2. Where is the UK situated?
3. What country occupies an area of over 244,000 sq km?
4. Do the British Isles consist of two or three large islands?
5. Britain's longest rivers are the Severn and the Thames, aren't they?

1. The geographical position and population.
2. The country's history and state system.
3. The political parties.
4. The industry of the country.
5. British agriculture.
6. The country's trade.

XI. What do you think the authors meant by the following statements? Do you agree or disagree with them? Give reasons to support your opinion.

1. When people say England, they sometimes mean Great Britain sometimes the United Kingdom, sometimes the British Isles, - but never England (George Mikes, Hungarian-born British writer, 1912-87).

2. But of all nations in the world the English are perhaps the least a nation of pure philosophers (Walter Bagehot, British economist and journalist, 1826-77).

3. England is... a country infested with people who love to tell us what' to do, but who very rarely seem to know what's going on (Colin MacInnes, British novelist, 1914-76).

From the History of Computers

Lead-in

I. Discuss these questions.

a) How many calculating devices can you name? What were the first calculating devices?
b) When and where did the first computer appear?

II. Alice and Dima are studying in different groups. Now they are discussing their laboratory classes. Listen to their conversations and say what they are talking about.

A. *Alice:* What did you do at your laboratory classes yesterday?
Dima: I observed a very interesting experiment with superconductors.
And what about you?
Alice: As for me, I made a new programme for the microcomputer.
Dima: Well, two years ago computer systems interested me, too.
Yesterday I read a very interesting book on the history of computers by Norma D. Miller. Did you read it?
Alice: I don't think I did. What does it deal with?
Dima: It deals with many remarkable powers of computers and their basic capabilities.

B. *Alice:* What will you do at your laboratory classes tomorrow?
Dim a: I expect I'll study changes in the properties of substances under different conditions.
Alice: You will use superconductors, won't you?
Dima: Yes, I will. And what are you going to do?
Alice: I think I'll study commercial applications of minicomputers.
Dima: You are interested in computer systems, aren't you?
Alice: Yes, I am.
Dima: Will you explain some computer concepts to me then?
Alice: Certainly.

II. Complete the dialogues.

1. *A:* What did you do at your lab class on Monday?
B: ... And what about you?
A: Well, ...
2. *A:* ...
B: It deals with powers of computers and their basic capabilities.
A: .. .
3. *A:* .. .
B: I expect I will do some experiments with new substances. And what

are you going to do?
A: .. .
B: .. .
A: Yes, I am.

Ill. **Match a line in A with a line in B.**

A

1. What are you interested in?
2. What did he do yesterday?
3. Will you study the commercial applications of minicomputers at your lab class tomorrow?
4. Will you explain some computer concepts to me. please?
5. When did you begin to study computer science?

B

a. Certainly, with pleasure!
b. Long time ago.
c. I'm interested in computer systems.
d. He made a new programme for the microcomputer.
e. I expect so.

IV. Before reading the text try to answer the following questions.

1. What was the first calculating device? 2. What is the abacus? Do people still use it nowadays? 3. Who invented calculus? 4. When did the first real calculating machine appear? 5. What is Charles Babbage famous for?

V. Now read the text about the history of computer systems and check your answers.

History of Computer Systems

The very first calculating device was the ten fingers of a man's hand. This, in fact, is why today we still count in tens and multiples of tens. Then people invented the abacus, a bead frame in which the beads move from left to right. People went on using some form of abacus well into the 16th century, and it is used in some parts of the world because it's not necessary to know how to read in order to use it.

During the 17th and 18th centuries, many people tried to find easy ways of calculating. The French scientist Blaise Pascal invented the first adding machine in 1642. His machine was ·mechanical in nature and it used gears to store numbers. John Napier, a Scotsman, devised a mechanical way of multiplying and dividing. He also produced the first logarithms. All mathematicians today use logarithm tables.

Leibnitz, a German mathematician, developed the binary system of mathematics in the 1600s. Binary mathematics uses only the 0 and the 1. And arranges them to represent all numbers.

The first real calculating machine appeared in 1820 as the result of several people's experiments. This type of machine, which saved a great deal of time and reduced the possibility of mistakes, depended on a series of *gear wheels* I and used "punched cards". In 1830 Charles Babbage, an Englishman, began to design a machine that was later called the "Analytical *Engine"2.* Babbage showed this machine at the Paris Exhibition in 1855. It contained all of the basic elements of an automatic computer - storage. Working memory and input device. Many of his ideas were the basis for building today's computers.

VI. Arrange the following calculating devices according to the time of their invention.

the first adding machine
the first multiplying and
dividing device
the "Analytical Engine"
the modern calculator
the abacus
the computer

VII. Match these people with the country of their origin. Say what you know about each of them.

I. John Napier a) England
2. Charles Babbage b) Germany
3. Wilhelm Leibnitz c) France
4. Blaise Pascal d) Scotland
5. Bill Gates e) Russia
6. Albert Popkov f) the USA

VIII. How are the following ideas expressed in the text?

1. Then people created the abacus. 2. People continued to use some form of abacus well into the 16th century. 3. J. Napier invented a mechanical way of multiplying and dividing. 4. This machine saves a lot of time. 5. This type of machine is based on a series of gear wheels.

Further Reading

I. Are you good at computers? Try to answer the following questions to check your knowledge. Is there anybody in your group who knows all the answers?

1. When did the first generation of computers appear?
2. The first-generation computers used vacuum tubes, didn't they?
3. What did the second-generation computers use instead of vacuum tubes?
4. How did the computers of the third generation differ from those of the first and the second generations?
5. Do we have computers that complete millions of operations per second?
6. What was the first PC called?

•

II. Read the text and check your answers.

Let's have a look at the history of computers. The first general-purpose electronic digital computer came out in the USA in 1946. It was called ENIAC (Electronic Numerical Integrator And Computer). ENIAC contained about 18,000 vacuum tubes, weighed more than 30 tons, occupied more than 1,500 square feet of floor space, and consumed 150 kilowatts of electricity during operation. The first-generation computer performed about 5,000 additions and 1,000 multiplications per second and was slow in comparison with modern machines. In the late 19 50s the second generation of computers appeared-and these performed work ten times faster than the first computers. The reason for this extra speed was the use of transistors instead of vacuum tubes. The third-generation computers appeared in 1965. They performed a million calculations per second, which was 1,000 times as many as first-generation computers. Now tiny integrated circuits controlled computers.

By the late 1960s many large businesses depended on computers. Many companies linked their computers into networks and that made it possible for different offices to share information. During this time computer technology improved rapidly. In the 1970s there appeared a microprocessor. And in 1975 American engineers devised the first personal computer, Altair. Millions of individuals, families and schools began to use PCs.

Present-day computers complete millions of instructions per second. Some experts predict that a new generation of intelligent machines will process data with the help of beams of laser light, rather than electric current. They say that these computers will store data on individual molecules and that virtual reality will play a large role in education.

III. Complete the sentences.

1. The first-... computers ... 5,000 ... and 1,000 .... 2. The ... -generation ... performed ... ten times faster than the ... -generation .... *3.* The second-generation computers used ... instead of ..... 4. Many companies ... their computers into .... 5. Future computers ... probably ... data with the help of ... of laser light. 6. Some experts predict that ..... will ... a large role in education.

IV. **Expand these sentences with the information from the text.**

l. The first-generation computers were slow. 2. The second-generation computers used transistors. *3.* There were many improvements in the third generation of computers. 4. People became dependent on computers. 5. Computers of the future will be better.

V. Give a title to the text.

VI. **Describe the computer you would like to have in the future. Do you know what computers of the future will look like? Translate the text into Russian to find it out.**

Computers of the Future

In the 1980s some scientists predicted: "By the year 2000 we will have a network planet. In offices, shops, factories and homes there will be small machines that will help us communicate with distant computers. We will ask them questions, perform calculations and enter data that computers will store, process and act upon. Probably all the professions will have their own data banks.

People will use home terminals for education, planning vocation and sheer entertainment. They will buy theatre tickets, airline tickets, and manage their bank accounts with the help of the Internet".

All this is reality nowadays. But the potential uses of computers are still endless. Today scientists predict that we will have machines that are as intelligent as we are. Here are some of their predictions:

• cars will report good and safe driving:

• a TV set will choose programmes that the viewer enjoys. Better yet, it will not repeat annoying commercials:

• a house will sense the mood of its owner: the coffee machine will kick in (=start working) when it's needed.

What Is a Computer?

Lexical and Grammar Exercises

1. Read the following words. Translate the sentences into Russian. Learn the words by heart.

1) instruction [ɪn'strʌkʃ(ə)n] - *1) обучение, образование*

Our school provides bilinguial instruction. Computer-assisted instruction can help with employee training. Webinars are a popular part of computer-assisted instruction.

Syn. ***teaching, training***

2) инструкция, правило, команда

To change row height or column width, follow these instructions. A program is a sequence of machine instructions.

Syn. ***command***

2) to carry out ['karɪ] - *осуществлять, выполнять*

We all have certain duties and jobs to carry out. What are the methods of carrying out experimental analysis?

Syn. ***to perform, to execute***

3) unit ['juːnɪt] - 1) *единица, элемент, часть*

Large departments are broken down into smaller units. The pound is the monetary unit of Britain. Electricity consumption is measured and paid for by units, where one unit is the equivalent of 1 kilowatt hour.

2) устройство, установка, прибор

Be careful with this sensing unit, it's very fragile.

4) central processing unit (CPU) ['sentr(ə)l 'prəusəsɪŋ ˈjuːnɪt] ([siː-piː-juː])- *центральный процессор*

A central processing unit (CPU) carries out the instructions of a computer program and controls the computer’ s operation.

5) device [dɪ'vaɪs] - *устройство, приспособление; механизм*

A mechanical or electronical unit of computer equipment made or adapted for a particular purpose is called a device. In physics and engineering measurement devices are used to obtain and compare physical quantities of real-world objects and events.

6) data ['deɪtə] - данные, факты, сведения; информация

This data was prepared for the conference. All recent data on computer crimes are being compared.

7) calculation [ˌkalkju'leɪʃ(ə)n] - *вычисление; подсчёт, расчёт*

If the first calculation is wrong, we make a second better. Finding ways of saving money involves complicated calculations.

Syn. ***computation***

8) slide rule ['slaɪdˌruːl] - *логарифмическая линейка*

A slide rule is a mechanical calculating device that you use for calculating numbers; it looks like a ruler and has a middle part that slides backwards and forwards.

9) to occur [ə'kɜː] - *случаться, происходить*

An unexpected error occurred. What complications can occur with such an operation? The invention of the computer is one of the most remarkable innovations that have occurred over the last ten decades.

OCCUR

You can say that an event **occurs**.

The accident occurred at 8:40 a.m. Mistakes are bound to occur.

"Occur" is a fairly **formal word.** In conversation and in less formal writing, you usually say that an event **happens**.

You might have noticed what happened on Tuesday. A curious thing has happened.

Be Careful!

1) Don't use "occur to" to say that **someone is affected by an event**. Don't say, for example, 'I wonder what's occurred to Jane'. Say 'I wonder what's happened to Jane'.

She no longer cared what happened to her. It couldn't have happened to a nice man.

2) Use "occur" to talk about events which are **not planned.** Don't say that a planned event 'occurs' or 'happens'. Say that it **takes place.**

The first meeting of this committee took place on the 9th of January. These lessons took place twice a week.

10) set [set] - *набор; комплект; множество*

A set of instructions is called a program. The vocabulary of a programming language consists of a set of reserved words.

11) to transform [tran(t)s'fɔːm] - *изменять, преобразовывать*

It is the modem's job to transform analog signals into digital ones for computer processing. *Syn.* ***to convert, to change, to turn into***

12) to store [stɔː] - *запоминать; сохранять; накапливать*

The information is stored in a file on my computer. Small computers cannot store as much data as the larger ones.

13) to retrieve [rɪ'triːv] - *отыскивать; извлекать; восстанавливать, возвращать в прежнее состояние*

Your attempt to retrieve your password was not successful.

14) to process ['prəuses] - *обрабатывать*

Computers process data. Data processing means any operation performed on the data such as collection, use, management.

15) to interact [ˌɪntər'akt] - *взаимодействовать; влиять друг на друга*

The user interacts directly with the library. A computer system and a user interact by means of the user interface.

16) integrated circuit ['ɪntɪgreɪtɪd 'sɜːkɪt]- *интегральная схема; микросхема*

Jack Kilby won the 2000 Nobel Prize in Physics for his part in the invention of the integrated circuit which was made of germanium. Robert Noyce developed his own idea of an integrated circuit made of silicon. ICs are the brains of today's computers.

17) wafer ['weɪfə] - *подложка; пластина; плата*

A wafer is a very thin slice of a semiconductor crystal used as the substrate for circuitry. Wafers contain hundreds of millions of microscopic components.

Syn. ***substrate***

18) purpose ['pɜːpəs] - *цель, назначение*

general-purpose - *общего назначения; универсальный*

An appliance is a device that provides a limited function as compared to a general-purpose computer that can perform any function.

special-purpose - *специализированный; специального назначения*

Syn. ***dedicated***

A special-purpose computer is a computer designed to perform a specific task. A router is a special-purpose computer (or software package) that handles the connection between two or more networks.

19) versatile ['vɜːsətaɪl] - *универсальный; широкого назначения; непостоянный*

From the first electronic digital computers of the forties to today's versatile computers very little has changed as far as basic computer operation is concerned. General-purpose computers are more versatile than special-purpose computers.

20) word processor ['wɜːdˌprəusesə] - *текстовый редактор*

Today most popular word processors offer a much greater range of facilities than the first programs of the kind.

21) character ['karəktə] - *символ*

A character is a unit of information that can be represented by a binary pattern. A character is equivalent to a byte; for example, 50,000 characters take up 50,000 bytes. The word "character" itself takes up nine bytes.

22) digital ['dɪʤɪt(ə)l] - *цифровой*

The conversion of analog data to digital was the start of the information revolution. The 0s and 1s of digital data mean more than just on and off; they mean perfect copying. A digital camera works similarly to a film-based model.

2. Give English equivalents for the words in brackets.

1. A (специализированный) _____ computer or program for storing, manipulating, and formatting text is called a word processor.
2. (Сохранять) _____ means to copy the data in the computer's memory to an internal storage device or an external storage device such as a disk or USB drive.
3. It may be that what I am talking about will not (произойдет) _____ this morning.
4. (Логарифмическая линейка) _____ is a calculating device invented more than 350 years ago.
5. Her (вычисления) _____ of the building costs proved quite accurate.
6. These (данные) _____ represent the results of our analyses.
7. Computers can (выполнять) _____ a very complicated task in a fraction of a second.
8. The computer can (обрабатывать) _____ thousands of bits of information.

3. Replace the following by one word.

1. A mechanical part of the equipment or an entire apparatus that performs a specific function. _____

2. A segment of code that contains steps to be executed by the computer processor._____

3. Facts and statistics collected together for reference or analysis. _____

4. A set of electronic circuits on a small plate. _____

5. A computer program designed to perform text editing. _____

6. Any letter, numeral, etc., which is a unit of information and can be represented by a binary pattern of 1s and 0s. _____

7. A collection of objects that have some characteristics in common. _____

8. Relating to signals or information represented as digits. _____

9. The key component of a computer system, which contains the circuitry necessary to interpret and execute program instructions. _____

4. Fill in the blanks with the words from the active vocabulary.

1. A computer keyboard is a typewriter-style _____, which uses buttons or keys.

2. An _____ is an electronic circuit formed on a small piece of semiconducting material.

3. Input devices send data to a computer, allowing you to _____ with and control the computer.

4. "_____" and "save" are synonymous.

5. I did some rapid _____ in my head.

6. _____ are entered by terminal for immediate processing by the computer.

7. Try to _____ your drab office into a cheery workspace.

5. Match the words with similar meaning.

1) instruction a) to carry out
2) to perform b) computation
3) special-purpose c) command
4) calculation d) to save
5) to store e) to convert
6) to transform f) dedicated

6. Match the words with opposite meaning.

1) versatile a) analog
2) to store b) special-purpose
3) digital c) to delete
4) tiny d) to accept
5) to deny e) huge

7. a) Guess the meaning of the following words by their explanation. Write the most suitable translation for each of them.

numeric = consisting entirely of numbers (e.g. "a numeric ID") _____

numerical = involving numbers (e.g. "some numerical process") _____

digital = technically means *numerical*, but more commonly means "associated with

computers" _____

A ***number*** is a count or measurement, that is really an ***idea*** in our minds. _____

A ***numeral*** is a ***symbol or name*** that stands for a number. So the number is an idea, the numeral is ***how we write it***. _____

A ***digit*** is a ***single symbol*** used to make numerals. _____

b) Fill in the blanks with the correct words.

1. _____ make up _____, and_____stand for an idea of a_____.
2. The _____ 153 is made up of 3 _____ ("1", "5" and "3").
3. The dog is thinking about six bones. So, the _____ represented in his head is 6.
4. How many _____ does the _____ 20,592 have? It has five_____, which are 2, 0, 5, 9 and 2.
5. Can you show 5 fingers? The _____you represent is 5.
6. The Roman _____ XVI represents 10 + 5 + 1 = 16.

18. Determine the meaning of the underlined words. Give the index of the corresponding translation.

1. The term "computer" usually refers to an electronic device that can carry out automatically a series of tasks according to a **precise** set of instructions. _____
2. These **tiny** silicon wafers contain hundreds of millions of microscopic electronic components. _____
3. CPU controls the computer's **overall** operation. _____
4. Special-purpose computers are **designed** to perform specific tasks. _____
5. Each new program **enables** the same computer to perform a different set of tasks. _____
6. General-purpose computers can **accept** new programs. _____

a) предназначены b) полностью всю c) позволяет
d) крошечный e) точный f) принимать

19. Read the text and name 5 elements a computer system consists of.

What Is a Computer?

The invention of the computer is one of the most remarkable innovations that have occurred over the last ten decades. The fact that computers have considerably changed lives of human beings can hardly be denied.

A computer is any device that can perform numerical calculations − *an adding machine**1**, an abacus**2***, or a slide rule. Currently, the term usually refers to an electronic device that can carry out automatically a series of tasks according to a precise set of instructions. The set of instructions is called a program, and the tasks may include making arithmetic calculations, storing, retrieving, and processing data, controlling another device, or interacting with a person to perform a business function or to play a video game.

The "brains" of today's computers are integrated circuits (ICs), sometimes called microchips, or chips. These tiny *silicon**3*** wafers can each contain hundreds of millions of microscopic electronic components and are designed for many specific operations. Some chips make up a computer's central processing unit (CPU), which controls the computer's overall operation; some are *math coprocessors**4*** that perform millions of mathematical operations per second; and others are memory chips that store billions of characters of information at one time.

Computers come in many sizes and shapes. Special-purpose computers are designed to perform specific tasks. Their operations are limited to the programs built

into their microchips. These computers can be found in electronic calculators, digital watches, cameras, and automobiles.

General-purpose computers, such as personal computers and business computers, are much more versatile because they can accept new programs. Each new program enables the same computer to perform a different set of tasks. For example, one program instructs the computer to be a word processor, another instructs it to manage *inventories**5***, and yet another transforms it into a video game.

NOTES

1. an adding machine – арифмометр; счётная машина

2. an abacus – счёты

3. silicon – кремний

4. a math coprocessor – математический сопроцессор; специализированный процессор,

выполняющий над данными математические операции

5. inventories – наличные товары, запасы

20. Express your agreement or disagreement with the following statements.

1). The invention of the computer has occurred over the last ten centuries.

2). Any device that can perform numerical calculations can be called a computer.

3). Integrated circuits are called minichips, or chips.

4). Special-purpose computers can be found in electronic calculators, digital watches, cameras, and automobiles.

5). Integrated circuits are very small silicon wafers containing microscopic electronic components and are designed to perform specific operations.

6). Math coprocessors control the computer's overall operation.

7). Computers that control elevators, TV, washing machines, iPods, ATM Machines and cash registers belong to general-purpose computers.

21. Complete the following sentences according to the text.

1). Nowadays, the term “computer” denotes ⋯ .

2). A program is ⋯ .

3). The “brains” of today's computers are ⋯ .

4). A computer's central processing unit ⋯ .

5). The operations of special-purpose computers are limited ⋯ .

6). General-purpose computers are much more versatile because ⋯ .

22. Ask your groupmates and let them answer:

1) why computers have considerably changed lives of people;

2) if the invention of the computer has occurred over the last twenty decades;

3) what devices that can perform numerical calculations they know;

4) what they know about microchips;

5) what devices containing special-purpose computers they have at home;

6) about examples of general-purpose computers.

23. Discuss in pairs and explain the difference between

a) an adding machine and a computer;

b) an integrated circuit and a central processing unit;

c) special-purpose and general-purpose computers;

e) a set of instructions and a set of tasks computers perform;

f) mechanical and electronic devices;

g) applications of home and business computers.

24. Divide the text into logical parts and make an outline of the text.

Join simple sentences so as to make them clauses of a compound sentence.

Remember that:

1). The idea of addition may be expressed by conjunctions "and, both ... and, not only ...

but, as well as, etc.'

2). The idea of contrast may be expressed by "yet, but, only, however, etc."

3). The idea of alteration may be expressed by "or, either ... or, neither ... nor, otherwise,

etc."

Write a summary of the text.__

Introduction to Computers

Lexical and Grammar Exercises

1. Master the active vocabulary.

1). network ['netwɜːk] - *[вычислительная, компьютерная] сеть*

A computer network is the interconnection of many individual computers. Local area networks link the computers in separate departments of businesses or universities. The Internet was originally formed in 1970 as a military network.

LAN *(*Local Area Network) [lan] - *локальная сеть*

WAN *(Wide Area Network)* [wan] - *глобальная [вычислительная] сеть*

2). workstation ['wɜːkˌsteɪʃ(ə)n] - *рабочая станция (сетевой компьютер, использующий ресурсы сервера)*

The workstation is a computer that is a part of a computer network. The personal computers or workstations are connected to a Local Area Network (LAN).

3). entertainment [ˌentə'teɪnmənt] - *развлечение, веселье; увеселительное мероприятие*

Computers are often used for personal entertainment. The art and entertainment industries have become important users of computers. The town provides a wide choice of entertainment.

Syn. ***amusement***

4). capability [ˌkeɪpə'bɪlətɪ] - способность, возможность

These systems had impressive capabilities to produce realistic graphics, sound, and animation. The constantly improving graphics and sound capabilities of PCs have made them popular tools for artists and musicians.

Syn. ***ability***

5). to share [ʃeə] - *делить, распределять; разделять*

People may quickly and easily share files; modify databases; send e-mail. The two chemists shared the Nobel prize. We shared the cost of the computer between us.

6). server ['sɜːvə] - *сервер (центральный компьютер сети, управляющий распределением ресурсов и централизованным доступом к данным)*

Servers are fast computers that have greater data processing capabilities. Several PCs and workstations can be connected to a server. Most companies and many organizations have their own Web servers.

7). mainframe – *мэйнфрейм (главный компьютер вычислительного центра)*

Mainframes are large, extremely fast, multiuser computers. Mainframes use proprietary operating systems. Personal computers became faster and more powerful, today they are able to run sophisticated programs previously run only on mainframes.

8). array [ə'reɪ] - *набор, комплект; множество, массив*

Computers contain complex arrays of processors. There is a vast array of books on the subject.

Syn. ***bunch, batch, collection***

9). to handle ['handl] - *управлять, заведовать; контролировать*; *обходиться, обращаться; управляться, справляться (с кем-л. / чем-л.)*

Mainframes can handle huge databases. Large computer systems handle high volumes of constantly changing data. Computer operators typically handle several types of computers.

Syn. ***deal with smb/smth, control, organize***

10). database ['deɪtəbeɪs] - *база данных*

Today, networks carry e-mail and provide access to public databases. Databases are used within a medical context for many purposes.

11). circuitry ['sɜːkɪtrɪ] - *схемы; цепи; компоновка схем; схематика*

Critical circuitry is supercooled to a temperature of nearly absolute zero. The circuitry in this aircraft has been protected against strong magnetic fields.

12). circuit ['sɜːkɪt] - *схема, микросхема; линия связи, канал двусторонней связи*

A processor consists of many different electronic circuits.

Related words: ***circuit board*** *(печатная (схемная, монтажная) плата)*

13). to require [rɪ'kwaɪə] - *требовать; нуждаться; являться необходимым*

Regulations require that students attend at least 90% of the lectures. BASIC was developed in 1965 at Dartmouth College in the United States for students who required a simple language to begin programming. Since 1998, each student has been required to own a personal computer.

Syn. ***to need, to want***

14). application [ˌaplɪ'keɪʃ(ə)] - *1) применение, использование*

Modern computers have a myriad of applications.

Syn. ***use, want***

2) приложение (часто используется наряду с термином program (программа))

Between the early 1970s and 1980s, computer science rapidly expanded in an effort to develop new applications for personal computers. Video games are one of the most popular PC applications.

15). to improve [ɪm'pruːv] - *улучшать(ся); усовершенствовать(ся)*

Supercomputer capabilities are continually being improved. Computer consultants improve the efficiency of computer systems. Computer networks should improve our work environments and technical abilities.

Syn. ***to make better***

16). to perform [pə'fɔːm] - *выполнять (операцию); производить (действие)*

Computers can perform a very complicated task in a second. In the future, many tasks will be performed by robots. Mainframes are designed to perform a specific function.

Syn. ***to carry out, to accomplish***

2. Give English equivalents for the words in brackets.

1. (Рабочая станция) _____ is a type of computer used for engineering (приложения) _____.

2. (Суперкомпьютеры) _____ are very expensive and are employed for specialized applications that (требовать) _____ immense amounts of mathematical calculations.

3. Therefore, computers can (выполнять) _____ complex and repetitive procedures quickly, precisely and reliably.

4. The processing (возможности) _____ of (мэйнфреймы) _____ are measured in MIPS, or millions of instructions per second.

5. A mainframe can (справляться с) _____ hundreds or thousands of connected users simultaneously.

6. Television (сети) _____ often use supercomputers to generate complicated images.

7. Bits are transferred internally within the (схемы) _____ of the computer along electrical channels.

8. Computers allow users to (делиться) _____ the information with other computer users.

3. Replace the following by one word.

1. A large powerful computer that can work very fast and that a lot of people can use at the same time. _____

2. A systematized collection of data that can be accessed immediately and manipulated by a data processing system for a specific purpose. _____

3. The system of circuits used in an electronic device. _____

4. A computer program with an interface, enabling people to use the computer as a tool to accomplish a specific task. _____

5. A computer that is part of an office computer system. _____

6. The main computer on a network, which controls all the others. _____

7. A set of computers that are connected to each other so that they can share information._____

8. A very fast, powerful mainframe computer used in advanced military and scientific applications. _____

4. Fill in the blanks with the words from the active vocabulary.

1. Word processing software can _____ the quality of written work.

2. _____ software can efficiently handle large data tables.

3. A formula or function _____ calculations on the data and displays the result.

4. Many software _____ are designed specifically for use at home or for personal or educational use.

5. One of the main reasons people use computers is to communicate and _____ information.

6. A bit (short for binary digit) is the smallest unit of data a computer can _____.

7. These circuit boards add new devices or _____ to the computer.

8. A _____ can be used by a single-user for applications requiring more power than a typical PC (rendering complex graphics, or performing intensive scientific calculations).

5. Match the words with similar meaning.

1) to improve a) to carry out
2) to perform b) to better
3) application c) to connect
4) to require d) use
5) array e) to deal with
6) to handle f) collection
7) to link g) to need

6. Match the words with opposite meaning.

1) complex a) general
2) specific b) simple
3) to link c) to become worse
4) to improve d) to disconnect

14. Determine the meaning of the underlined words. Give the index of the corresponding translation.

1. Today's PCs can be used for **household management** and personal entertainment. ____

2. Workstations are generally used for scientific, engineering, or **advanced** business applications.____

3. Servers have greater **data-processing capabilities** than most PCs and workstations. ____

4. Mainframes are large, extremely fast, **multiuser** computers. ____

5. Mainframes can simultaneously accommodate **scores** of users. ___

6. **Critical** circuitry is supercooled to a temperature of nearly absolute zero. ___

a) множество b) многопользовательский c) важный d) продвинутый, прогрессивный e) домоводство f)возможности обработки данных

15. Name the different types of computers you know. What functions do they perform? What are the differences between them? Study the text below to check your answers.

Introduction to Computers

Today's **PCs** can perform several billion operations per second. They are used not only for household management and personal entertainment, but also for most of the automated tasks required by small businesses, including word processing, tracking inventory, and calculating accounting information. The fastest desktop computers are called **workstations**, and they are generally used for scientific, engineering, or advanced business applications.

Servers are fast computers that have greater data processing capabilities than most PCs and workstations and can be used simultaneously by many people. Often several PCs and workstations are connected to a server via a local area network (LAN). The server controls resources that are shared by the people working at the PCs and workstations. An example of a shared resource is a large collection of information called a database.

Mainframes are large, extremely fast, multiuser computers that often contain complex arrays of processors, each designed to perform a specific function. Because they can handle huge databases, simultaneously accommodate scores of users, and perform complex mathematical operations, they have been the mainstay of industry, research, and university computing centers.

The speed and power of **supercomputers** are almost beyond human comprehension, and their capabilities are continually being improved. The fastest of

these machines can perform many trillions of operations per second. Supercomputers attain these speeds through the use of several advanced engineering techniques. For example, critical circuitry is supercooled to a temperature of nearly absolute zero so that electrons can move at the speed of light, and many processing units are linked in such a way that they can all work on a single problem simultaneously. As these computers can cost billions of dollars and they can be large enough to cover the size of two basketball courts, they are used primarily by government agencies and large research centers.

16. Express your agreement or disagreement with the following statements.

1. Today's PCs can perform most of the automated tasks required by small businesses.
2. The fastest desktop computers are called workstations.
3. Workstations are generally used to control resources shared by the people.
4. Servers have greater data-processing capabilities than most PCs and workstations.
5. Mainframes can handle huge databases, simultaneously accommodate scores of users, and perform complex mathematical operations.
6. The fastest supercomputers can perform many millions of operations per second.
7. Supercomputers are used primarily by government agencies and large research centers.

17. Complete the following sentences according to the text.

1. Today's PCs are used for ⋯ .
2. The term “workstation” refers to ⋯ .
3. A server is⋯ .
4. Servers can perform the following functions: ⋯ .
5. Mainframes contain ⋯ .
6. Mainframes can handle ⋯ .
7. The speed and power of supercomputers are ⋯ .

18. Ask your groupmates and let them answer:

1. what operations computers can perform;
2. what application areas of workstations they know;
3. what they know about data-processing capabilities of servers;
4. if mainframes can handle huge databases;
5. what engineering techniques allow supercomputers to attain amazing speeds;
6. what application areas of supercomputers they can name.

19. Work in pairs. Compare different computer types, mentioned in the text, on the following points:

1) data-processing capabilities;
2) data-processing speed;
3) application area.

20. Divide the text into logical parts. Make a summary of the text. Use the following introductory phrases:

-the title of the text is…;
-as you can see from the title the text dwells upon...;
-according to the text...;
-as far as I can understand...;
-the text is on the subject I am greatly interested in...;

-I find the text rather interesting (important, dull, difficult, disputable, informative) because...;

-the text will be noted by those who take interest in... .

21. Write a paragraph describing the computer you have and the one you would like to have.__

Computer Applications

Lexical and Grammar Exercises

1. Master the active vocabulary.

1) image ['ɪmɪʤ] - *образ; изображение*

A display, or a monitor, displays video signal of still images and moving pictures produced by a computer or a similar device. Images may be two-dimensional such as a photograph, a screen display, and three-dimensional such as a statue or a hologram.

2) to enhance [ɪn'hɑːn(t)s] - *увеличивать, усиливать, улучшать*

They want to enhance their reputation abroad. Computer techniques enhance images.

Syn. ***to improve , to increase***

3) launch [lɔːnʧ] - *1) запуск; 2) запускать*

They are going to launch an artificial satellite tomorrow. He is planning to launch his business. I am trying to launch a program prior to debugging.

4) link [lɪŋk] - *1) соединять, связывать*

The Internet links computers all over the world. The Channel Tunnel links Great Britain and France.

Syn. ***to connect***

2) ссылка

I'll send you the link to my website. Just follow the link down below! Links can point to another part of the same document, in this case clicking the link will cause the browser to move to a new part of the currently displayed document. Please do not answer this fraudulent e-mail and certainly do not click on the links in the e-mail.

5) computer-aided design (CAD) [kad] - *автоматизированное проектирование, САПР*

She was the second-place winner in the computer-aided design competition.

6) dimension [daɪ'men(t)ʃ(ə)n] - *размер, величина, измерение*

The drawing must be precise in dimension. The final dimensions of the plot were 14 feet by 8 feet. A straight line has one dimension, a parallelogram has two dimensions, and a parallelepiped has three dimensions. A model is a three-dimensional representation of a person or a thing, typically on a smaller scale than the original.

Syn. ***measurement, proportion, size***

7) computer-aided manufacturing (CAM) [kam] - *автоматизированное производство*

They use computer-aided design and manufacturing (CAD/ CAM) software to draw and scale a part. Computer-aided manufacturing (CAM) is the use of computer software to control machine tools and related machinery in the manufacturing of workpieces.

8) computer-assisted instruction (CAI) [kaɪ] - *программированное обучение, компьютеризированное обучение, обучение с использованием компьютера*

The main problems in computer-assisted instruction are the elaboration (разработка) of the theory of CAI on the basis of modern scientific concepts and the creation of the CAI technology.

9) automated [ˌɔːtə'meɪtɪd] - *автоматизированный, автоматический*

If they do not email you back you'll get an automated reply. Automated testing requires no operator input, analysis, or evaluation.

Syn. ***automatic***

10) to generate ['ʤen(ə)reɪt] - *создавать, порождать, производить, генерировать*

I once read an interesting anthology of poetry generated by a computer program in 1984. Let a computer program generate your passwords for you. Tourism generated many new jobs. Nuclear power is used to generate electricity.

Syn. ***to produce***

11) to compile [kəm'paɪl] - *составлять, компилировать, собирать*

Computers speed up the process of compiling dictionaries. Google Maps is a web mapping service that compiles information from many sources.

12) to maintain [meɪn'teɪn] - *поддерживать, обслуживать, содержать в исправности*

Laser printers are generally less expensive to maintain than ink jet printers. A computer can stay fast and reliable if it is properly maintained. Maintaining high quality control standards can help improve company reputation.

13) to simulate ['sɪmjəleɪt] - *имитировать, моделировать, воспроизводить условия при испытании*

During the drill we will simulate emergency conditions. From the start, you can simulate realworld environments and actual product conditions to optimize performance while you design. Computer software can be used to simulate conditions on the sea bed. Role-play is a way of simulating real-life situations.

Syn. ***to replicate***

14) available [ə'veɪləbl] - *доступный, имеющийся в наличии, действительный*

This offer is available for five days. Before using this product, carefully read this manual and the additional information available at our site. He based his report on the available statistics. Encyclopedias and other reference works, are available to PC users– either on discs or through the Internet.

15) tool [tuːl] - *инструментальное средство, инструмент; сервисная программа*

Education is a tool for success. This tool will come in handy during the experiment. As a computer technician you need to have the right tools with you at all times in order to perform your job effectively. Electronic design automation (EDA) is the category of tools for designing and producing electronic systems ranging from printed circuit boards (PCBs) to integrated circuits.

16) complex ['kɔmpleks] - *сложный, составной*

The universe is interesting and complex. We regularly solve complex problems with amazing creativity. The element has sizes down to about 20 nanometers, and it's a complex 3D structure. Here are some examples of how to handle more complex situations.

2. Give English equivalents for the words in brackets.

1. Insert (изображения) _____ into a spreadsheet.

2. How passwords are (создаются) _____?

3. (Автоматизированное проектирование) _____ is software used in art, architecture, engineering and manufacturing.

4. Find the (размерность) _____ of this subspace.

5. Performing regular (обслуживание) _____ on your printer will prolong its life.

6. In carrying out an experiment you reproduce the conditions of a situation that is you (моделируете) _____ the situation.

7. Please inform me what options are (доступны) _____ to me.

8. Nowadays computers are an essential (инструмент) _____ everywhere.

3. Replace the following by one word.

1. A measurable extent of some kind, such as length, breadth, depth, or height. _____

2. The use of computer techniques in designing products, involving the use of computer graphics. _____

3. To produce (something, esp. a list, report, or book) by assembling information collected from other sources. _____

4. A visible impression obtained by a camera or other device, or displayed on a video screen. _____

5. To produce a computer model of. _____

6. Able to be used or obtained; at someone's disposal. _____

7. To keep something in good condition or in working order by checking or repairing it regularly. _____

8. Consisting of many different and connected parts. _____

4. Fill in the blanks with the words from the active vocabulary.

1. Please do not answer this fraudulent e-mail and certainly do not click on the _____ in the e-mail.

2. Can we _____ the image?

3. _____ a computer is to deal with the equipment itself, to replace parts as well as to keep software up to date and to fix bugs and errors.

4. Space-time has three _____ of space and one of time.

5. _____ a program means to convert it into a machine-code or lower-level form in which the program can be executed.

6. _____ may refer to the use of a computer to assist in all operations of a manufacturing plant, including planning, management, transportation and storage.

7. The subscriber is not _____ now. Please, call back later.

8. What type of _____ do you require for the job?

5. Match the words with similar meaning.

1) to design a) to allow

2) prediction b) to convert

3) dedicated c) monitor

4) to enable d) important

5) to transform e) forecast

6) display f) special-purpose

7) essential g) to create

6. Match the words with opposite meaning.

1) natural a) manual

2) complex b) to deteriorate
3) to improve c) artificial
4) automated d) simple

7. a) Study the table.

What is the difference between "complicated" and "complex"?

Complex is used to say that something consists of several components. If a problem is complex, it means that it has many components. Complexity does not evoke difficulty.

Complex is generally used in technical situations (esp. mathematics and chemistry), where a problem has a lot of components and aspects.

Complicated refers to a high level of difficulty. If a problem is complicated, it will certainly take a lot of hard work to solve.

Complicated is used to speak about something that is intricate, difficult to analyze or understand or involves many different and confusing aspects.

Complicated is used in social situations and in medicine involving complications.

b) Fill in the blanks with the correct words.

1) A _____ network of water channels.
2) A long and _____ saga.
3) A _____ appendicitis.
4) The chemical processes involved are extremely _____ .
5) This project's architecture is _____.
6) I didn't realize programming the VCR would be so _____ .
7) The brain is like a very powerful, very _____ computer.
8) A system can be very _____ but not _____ at all. _____ systems can be solved with enough computing power. _____ systems cannot be solved.
9) It is OK if something is _____ so long as it is not _____ .

15. Look at the title and say what information the text gives. Read the text attentively for the details.

Make sure you read the following words correctly:

processor, *n* ['prəusesə] control, *n,v* [kən'trəul]
satellite, *n* ['sat(ə)laıt] compact, *adj, v* [ˌkəm'pakt]
coordinate, *v* [kəu'ɔːdıneıt] model, *n,v* ['mɔd(ə)l]
robot, *n* ['rəubɔt] manipulate, *v* [mə'nıpjəleıt]
robotics, *n* [rəu'bɔtıks] chemist, *n* ['kemıst]

Computer Applications

Modern computers have a myriad of applications in fields ranging from the arts to the sciences and from personal finance to enhanced communications.

Computers make all modern communications possible. They operate telephone switching systems, coordinate satellite launches, and control the equipment in television and radio broadcasts. Local area networks link the computers in separate departments of businesses or universities, and the Internet links computers all over the world. Journalists and writers use word processors to write articles and books, which they then submit electronically to publishers.

Scientists and researchers use computers to collect, store, manipulate, and analyze data. Running simulations is one of the most important applications. Data representing a real-life system is entered into the computer, and the computer manipulates the data in order to show how the natural system is likely to behave under a variety of conditions.

In this way scientists can test new theories and designs. Computer-aided design (CAD) programs enable engineers and architects to design three-dimensional models on a computer screen. Chemists use computer simulations to design and test molecular models of a new medicine. Some simulation programs generate models of weather conditions to help meteorologists make predictions. Flight simulators are training tools for pilots.

In factories, computer-assisted manufacturing (CAM) programs help people plan complex production schedules, keep track of inventories and accounts, run automated *assembly lines**1***, and control robots. Dedicated computers are used in many products ranging from calculators to airplanes.

Government agencies are the largest users of mainframes and supercomputers. Computers are essential for compiling *census**2*** data, handling *tax**3*** records, maintaining criminal records, weapons development, and *cryptography**4***.

Computers have proved to be valuable in education. Computer-assisted instruction (CAI) uses computerized lessons that range from simple drills and practice sessions to complex interactive tutorials. Educational aids, such as encyclopedias and other reference works, are available to PC users−either on compact or digital video discs or through the Internet.

Video games are one of the most popular PC applications. The constantly improving graphics and sound capabilities of PCs have made them popular tools for artists and musicians. Painting and drawing programs enable artists to create realistic images and animated displays. *"Morphing"**5*** programs allow photographers and filmmakers to transform photographic images into any size and shape. Musicians can use computers to create multiplevoice compositions and to play back music with hundreds of variations, to simulate talking and singing.

NOTES

1. assembly line – сборочный конвейер

2. census – перепись населения; сбор сведений

3. tax – налог

4. cryptography – криптография (технология обеспечения секретности важной

информации и ее защиты при передаче по каналам связи или хранении)

5. morphing – трансформация; морфинг (преобразование одного изображения в другое

с помощью геометрических операций и цветовой интерполяции)

16. Give English equivalents for the following Russian words and word combinations.

Варьироваться от ... до, вносить в компьютер, при определённых условиях, на экране компьютера, вести учёт, доступен пользователям в интернете, воспроизводить музыку.

17. Express your agreement or disagreement with the following statements.

1). Modern computers are used only in business.

2). Modern communications are possible due to computer technologies.

3). LANs link computers all over the world.

4). The most popular program with writers and journalists is a word processor.

5). Engineers use CAD programs to test molecular models of a new medicine.

6). Some flight simulation programs help meteorologists make weather predictions.

18. Complete the following sentences according to the text.

1). Computers operate ⋯ .

2). Local area networks link ⋯ .

3). Chemists use computer simulations ⋯ .

4). Computers have proved to be ⋯ in education.

5). ⋯ are available on compact or digital video discs.

6). Musicians can use computers ⋯ .

19. Ask your groupmates and let them answer:

1) what they know about simulations;

2) to explain the difference between CAD and CAM;

3) to give examples of computer-assisted instruction;

4) if they have ever used morphing programs;

5) how often they use a word processor and what for.

20. Speak about the use of computers in

a) communication;

b) science and research;

c) industry;

e) government;

f) education;

g) arts and entertainment.

21. ***Do you agree or disagree with the following statement? With the help of technology, students nowadays can learn more information and learn it more quickly.***

Use specific reasons and examples to support your answer. Express sensible ideas in a logical manner and attempt to write 120-150 words for the topic.

The box below can help you write a short essay.

How to write a simple essay

Introduction *I completely agree that ...*

In this essay I will set out my reasons.

Some people believe that ... However, I would like to argue that ...

Organising your points *In the first place, ... / Firstly, ...*

Secondly, ...

Next, ... Thirdly, ...

Finally, ...

Conclusion *To conclude, ...*

In conclusion, ...

Types of Computers

Lexical and Grammar Exercises

1. Learn the active vocabulary.

1). analog/analogue ['anəlɔg] - *аналоговый, моделирующий*

Analog and digital signals are used to transmit information. Analog computers translate data from constantly changing physical conditions into corresponding mechanical or electrical quantities. An automobile speedometer is a mechanical analog computer. Electronic analog computers in chemical plants monitor temperatures.

2). to combine [kəm'baın] - *объединять, сочетать*

Hybrid computers combine elements of analog and digital computers. American engineer Marcian E. Hoff combined the basic elements of a computer on one tiny silicon chip. All-in-one computers combine the monitor and system unit into a single device.

Syn. ***to join, to unite, to merge***

3). voltage ['vəultıʤ] - *электрическое напряжение*

A computer can recognize high voltage or low voltage. When voltage is applied, the gas releases ultraviolet light that causes pixels on the screen to glow and form an image. A microchip translates the undulating voltages into a series of numbers.

4). corresponding [ˌkɔrı'spɔndıŋ] - *надлежащий, соответственный, соответствующий*

Electronic analog computers send corresponding voltages to various control devices. Every character you type on a keyboard is converted into a corresponding byte, a series of on/off electrical states the computer can process. The concept was a pointing device**,** something a computer user could move by hand, causing a corresponding movement on the screen.

5). to measure ['meʒə] - *измерять, мерить; отмерять, отсчитывать*

Anything in the universe can be measured in analog or digital terms. We measure

frequencies in hertz. Light can be a wave and it can be a particle; it just depends how you measure it.

6). rotation [rə'teıʃ(ə)n] - *вращение*

An automobile speedometer measures the rotations per minute of the drive shaft (карданный вал). Typical hard disks have a rotation speed from 4,500 to 10,000 rpm.

7). rate [reıt] – *темп, скорость, частота*

It provides different data rates. Serial ports (последовательные порты) usually connect devices that do not require fast data transmission rates.

8). to monitor ['mɔnıtə] - *отслеживать, контролировать*

Electronic analog computers in chemical plants monitor temperatures, pressures, and flow rates. Police officers have been closely monitoring the organisation's activities.

Syn. ***to observe, to supervise***

9). pressure ['preʃə] - *давление; сжатие*

Sensors in the walls, in your bed, or in your cereal will be able to monitor your blood pressure. When buttons are in analog mode, they register both how long a button is pressed and the amount of pressure put on them.

10). to adjust [ə'ʤʌst] - *регулировать, настраивать, подгонять*

Control devices adjust the chemical processing conditions to their proper levels. These controls adjust the brightness, contrast, positioning, and height and width of images.

Syn. ***to fit, to adapt, to arrange***

11). to navigate ['navıgeıt] - *передвигаться, двигаться*

Virtual reality programs create a world through which one can navigate as “ realistically” as in the real world. The first explorers navigated by the stars.

12). vehicle ['vıəkl], ['viːıkl] - *транспортное средство*

Analog computers are still common for flight control systems in aviation and space vehicles. Road vehicles include cars, buses, and trucks.

13). switch [swıʧ] - *выключатель, переключатель*

Every operation computers perform is based on one key operation: determining whether certain electronic switches are open or closed.

14). gate [geɪt] - *логический вентиль, затвор*

A gate is a microcircuit in which transistors are arranged so the value of a bit of data can be changed. Combinations of transistors in various configurations are called logic gates.

15). state [steɪt] **-** *состояние, положение, режим*

A computer can recognize only two states in each of its millions of circuit switches−on or off. Toggle keys (клавиши-переключатели) can be switched between two different states.

Syn. ***mode***

16). to assign [ə'saɪn] - *назначать, определять, устанавливать*

The USB host controller (хост-контроллер) assigns the device an identification number. To assign the value 3 to a variable X, BASIC uses the command X=3. Every pixel in a bitmap (побитовое отображение) is assigned a specific color and position.

*Syn***.** ***to appoint***

2. Give English equivalents for the words in brackets.

1). ICTs (Information and Communication Technologies) describe all media and tools involved in the dynamic transfer and storage of (аналоговый) _____ and (цифровой) _____ data.

2). The operations of computer hardware are based on the 'on' and 'off' (состояния) _____ of transistors.

3). The transformer weakens the (напряжение) _____ to suit the requirement.

4). A microprocessor has many electronic (переключатели) _____ inside it.

5). Although we do not have a unit that (измерять) _____ the memory of our brain, we do have a unit for the memory of a computer. It is known as a byte.

6). Computers can (объединять) _____ simulations with the reality of actual events.

7). The software was installed to (контролировать) _____ my Internet activity.

3. Replace the following by one word.

1). A computer that processes information in digital form. _____

2). A computer that represents data by measurable quantities, as voltages or, formerly, the rotation of gears (зубчатое колесо), in order to solve a problem, rather than by expressing the data as numbers. _____

3). A device for turning on or off or directing an electric current or for making or breaking a circuit. _____

4). Electrical force measured in volts. _____

5). The force or weight with which something presses against something else. _____

6). A thing that is used for transporting people or goods from one place to another, such as a car or lorry/truck. _____

7). To find the size, quantity, etc. of something in standard units. _____

4. Fill in the blanks with the words from the active vocabulary.

1). The digital system is less sensitive to errors than the _____ system.

2). A _____ is a piece of a physical circuitry component that governs the signal flow.

3). What are two possible _____ of switches?

4). Here are a few ways to make it easy for visitors to _____ your website.

5). The administrator can _____ users varying levels of access to programs and files.

6). These systems can _____ the driver’ s condition or behavior.

7). Aircraft, ships, and land _____ used by the military have been fitted with a variety of computerized systems.

8). The size of tiny transistors is _____ in atoms.

5. Match the words with similar meaning.

1. to combine a) essential
2. to adjust b) mode
3. to monitor c) efficient
4. rate d) speed
5. to navigate e) to guide along route
6. state f) vulnerable
7. key g) to join
8. effective h) to observe
9. susceptible i) to adapt

6. Match the words with opposite meaning.

1. combine a) simplicity
2. complexity b) inefficient
3. common c) inaccuracy
4. effective d) separate
5. precision e) rare

11. Read the text.

Types of Computers

There are two fundamentally different types of computers−analog and digital. (Hybrid computers combine elements of both types.)

Analog computers work by translating data from constantly changing physical conditions (such as temperature, pressure, or voltage) into corresponding mechanical or electrical quantities. They offer continuous solutions to the problems on which they are operating. For example, an automobile speedometer is a mechanical analog computer that measures the rotations per minute of the drive shaft and translates that measurement into a display of miles or kilometers per hour. Electronic analog computers in chemical plants monitor temperatures, pressures, and flow rates. They send corresponding voltages to various control devices, which, in turn, adjust the chemical processing conditions to their proper levels. Analog computers are still common for flight control systems in aviation and space vehicles.

For all their apparent complexity, digital computers are basically simple machines. Every operation they perform, from navigating a spacecraft to playing a game of chess, is based on one key operation: determining whether certain electronic switches, called gates, are open or closed. The real power of a computer lies in the speed with which it checks these switches.

A computer can recognize only two states in each of its millions of circuit switches−on or off, or high voltage or low voltage. By assigning binary numbers to these states−1 for on and 0 for off, for example−and linking many switches together, a

computer can represent any type of data, from numbers and letters to musical notes. This process is called digitization.

Digital computers are generally more effective than analog computers for three principal reasons: they are not as susceptible to signal interference; they can convey data with more precision; and their coded binary data are easier to store and transfer than are analog signals.

12. Express your agreement or disagreement with the following statements.

1. There are three fundamentally different types of computers−analog, digital and hybrid.
2. Analog computers work by translating data from physical conditions into corresponding mechanical or electrical quantities.
3. An automobile speedometer is an example of a mechanical analog computer.
4. Electronic analog computers in chemical plants monitor temperatures, pressures, and flow rates.
5. Analog computers are still common in automobile industry.
6. Every operation, digital computers perform, is based on one key operation: determining the temperature of electronic switches.
7. A computer can recognize only two states in each switch−on or off.
8. A digital computer can represent any type of data by assigning binary numbers to the states, it can recognize, and linking many switches together.
9. Digital computers are generally more effective than analog computers.

13. Complete the following sentences according to the text.

1. An analog computer is ⋯ .
2. Analog computers can ⋯.
3. Analog computers are still commonly used in ⋯.
4. The term “digital computer” refers to ⋯ .
5. A key operation of a digital computer is ⋯.
6. A digital computer can represent any data by ⋯. .
7. There are three principal reasons why digital computers are more efficient than analog ones. They are ⋯ .

14. Ask your groupmates and let them answer:

1. what fundamentally different types of computers they know;
2. what differences there are between digital and analog computers;
3. what application areas of digital/analog computers they can name;
4. whether they know what the term “digitation” refers to;
5. whether digital computers are more effective than analog;
6. what advantages of digital computers, mentioned in the text, they can name.

15. Discuss in pairs and speak on the differences between analogue and digital signals.__

Parts of a Digital Computer System

Lexical and Grammar Exercises

1. Read the following words. Translate the sentences into Russian. Learn the words by heart.

1) hardware [ˈhɑːdwɛə] - *аппаратное обеспечение, аппаратура, оборудование*

A list of required hardware is available here. When using computer hardware, an upgrade means adding new hardware to a computer that improves its performance, adds capacity or new features. There are many different kinds of hardware that can be installed inside, and connected to the outside of a computer.

2) software ['sɔftwɛə] - *программное обеспечение*

He has a lot of pirated software on his computer. What's your favourite free software application? Update any software packages to the latest version.

3) input ['ɪnput] - *вводить (в компьютер); входной*

Before making a decision we need your input data. The keyboard is my computer's main input device. Please input your PIN number. You simply input the customer's name and address here.

Ant. ***output***

4) output ['autput] - *вывод [данных]; результаты, выходные данные*

An output device is any peripheral that receives data from a computer, usually for display, projection, or physical reproduction. What do you know about such output devices as monitors? The distinction between output devices and input devices becomes even more blurred in the real world. Computers output data very quickly.

Ant. ***input***

5) memory ['mem(ə)rɪ] - *память, запоминающее устройство*

How much memory does your computer have? Computer memory may be divided into internal memory and external memory. The memory capacity is the maximum or minimum amount of memory a computer or hardware device is capable of having or the required amount of memory required for a program to run.

6) storage ['stɔːrɪʤ] - *хранение (информации); внешнее устройство для хранения данных*

To free up storage, you can delete files or individual versions of a file by moving them to the Trash. The CD has a storage capacity of 800 megabytes.

7) bus [bʌs] - *шина*

A bus is a set of conductors carrying data and control signals within a computer system. USB interfaces, named for the Universal Serial Bus, can run at fast speeds.

8) motherboard ['mʌdəbɔːd] - *системная плата, материнская плата*

The motherboard is also known as mainboard, mobo, MB, system board, logic board, a main circuit board. The motherboard serves to connect all of the parts of a computer together.

9) to plug into [plʌg] - *подключать, вставлять в разъём*

Plug the computer into that outlet over there. It plugs into any electric socket. Your phone can be plugged into the cigarette lighter socket in your car.

10) to time [taɪm] - *регулировать, рассчитывать (по времени), синхронизировать, согласовывать во времени*

The clockwork apparatus is timed to run for forty-eight hours. The central processing unit times and controls the rest of the system.

Syn. ***to synchronize***

11) arithmetic logic unit (ALU) - *арифметико-логическое устройство*

The ALU is a fundamental building block of the central processing unit of a computer, and even the simplest microprocessors contain one for purposes such as maintaining timers. In some computer processors, the ALU is divided into an AU and LU. After the information has been processed by the ALU, it is sent to the computer's memory.

12) addition [ə'dɪʃ(ə)n] - *сложение, суммирование, прибавление*

Addition is the mathematical operation of combining or adding two numbers to obtain a total amount. Addition (often signified by the plus symbol "+") is one of the four basic operations of arithmetic, with the others being subtraction, multiplication and division.

Ant. ***subtraction***

13) subtraction [səb'trakʃ(ə)n] - *вычитание*

The addition is correct, but there is an error in your subtraction. Subtraction is denoted by a minus sign in infix notation, in contrast to the use of the plus sign for addition.

14) temporary ['temp(ə)r(ə)rɪ] - *временный*

It's a temporary condition. Select temporary Internet files and cookies, then click 'delete'. Many of those changes could just be a temporary fix.

Ant. ***permanent***

15) intermediate [ˌɪntə'miːdɪət] - *промежуточный, переходный, средний*

I'm taking intermediate French this year. Your responsibility will be to evaluate intermediate and final results. This programme should be phased, with intermediate objectives being more clearly stated. My English is at intermediate level.

16) pattern ['pat(ə)n] - *образец, модель, шаблон, структура, тенденция, схема, комбинация*

This pattern had remained stable during the previous 10 years. That seems to have become a pattern. It's the same pattern at many different scales. The idea was to use a computer to learn these patterns, and so we gave the computer the existing texts.

Syn. ***template, model***

17) to hold [həuld] - *содержать в себе, вмещать; сохранять, удерживать*

This room holds a hundred people. Registers hold data, instructions, or the intermediate results of calculations. In computer science, a buffer is a region of a physical memory storage used to temporarily hold data while it is being moved from one place to another. We take reasonable steps to protect all personal information we hold from misuse, interference.

18) value ['valjuː] - *ценность, важность; числовое значение, величина*

Find the value of x in the equation x + 2 = 6. The request that's sent includes a number of parameters or values.

2. Give English equivalents for the words in brackets.

1. A computer system isn't complete unless there's also (программное обеспечение) _____ , which is different than (аппаратное обеспечение).

2. The (системная плата) _____ manufacturer should provide clear guidance on component compatibilities.

3. "How much more" means that it would be a (вычитание) _____ .

4. The plan contains long term goals, (промежуточные) _____ results, definite actions and dates.

5. She was employed on a (временный) _____ basis.

6. A basic (арифметико-логическое устройство) _____ has three parallel data buses consisting of two input operands (A and B) and a result output (Y).

7. Bloggers follow the same (образец) _____ , no matter what they write about.

8. A gigabyte can (вместить) _____ the information equivalent of about 1,000 thick books.

3. Replace the following by one word.

1. The machines, wiring, and other physical components of a computer or other electronic system. _____

2. To arrange the interval between two events in such a certain sequence. _____

3. A unit in a computer that carries out arithmetic and logical operations. _____

4. The information fed into a computer or computer program. _____

5. The programs and other operating information used by a computer. _____

6. The process of uniting two or more numbers into one sum, represented by the symbol +. _____

7. Any information made available by computer, as on a printout, display screen, or disk. _____

8. The numerical amount denoted by an algebraic term. _____

4. Fill in the blanks with the words from the active vocabulary.

1. Computer _____ may sometimes be seen abbreviated as computer hw.

2. The I/O _____ from the CPU to the peripherals is a parallel _____.

3. In laptops and tablets, and even in desktops, the _____ often incorporates the functions of the video card and sound card. This helps keep these types of computers small in size.

4. What is the most efficient way to temporarily _____ information?

5. The data is ready for _____ into a computer.

6. Games consoles _____ the back of the TV.

7. Since most information from a computer is _____ in either a visual or auditory format, the most common _____ devices are the monitor and speakers.

5. Match the words with similar meaning.

1. to require a) to enter
2. to input b) part
3. to hold c) to need
4. section d) to contain
5. cycle e) component
6. element f) period

6. Match the words with opposite meaning.

1. temporary a) to subtract
2. complex b) output
3. fast c) slow
4. input d) simple
5. to add e) permanent
6. next f) to multiply
7. to divide g) previous

11. Determine the meaning of the underlined words. Give the index of the corresponding translation.

1. The arithmetic-logic unit performs arithmetic and logic operations such as **testing a value** to see if it is true or false. _____

2. **Registers** hold data, instructions, or the intermediate results of calculations. _____

3. Every tick, or cycle, of the **clock** causes each part of the CPU to begin its next operation and to stay synchronized with the other parts. _____

4. A CPU can perform a very simple operation, such as copying a value from one register to another, in only one or two **clock cycles**.

a) цикл тактового сигнала

b) контроль значений величины

c) тактовый генератор

d) устройства сверхбыстродействующей памяти для временного хранения команд

12. Look through the text and name the parts of a digital computer system. Read the text for the detailed information about four functionally different hardware elements. Make sure you know the correct pronunciation of the following words:

process, *n,v* ['prəuses] record, *n* ['rekɔːd]

component, *n* [kəm'pəunənt] record, *v* [rɪ'kɔːd]

control, *n,v* [kən'trəul] gigahertz ['gɪgə-] / ['gaɪgə-] / ['ʤɪgə-] [hɜːts]

synchronize, *v* ['sɪŋkrənaɪz] MHz ['megəhɜːts]

Parts of a Digital Computer System

A working computer requires both hardware and software. Hardware is the computer's physical electronic and mechanical parts. Software consists of the programs that instruct the hardware to perform tasks.

a) Hardware

A digital computer's hardware is a complex system of four functionally different elements−a central processing unit, input devices, memory-storage devices, and output devices−linked by a communication network, or a bus. The bus is usually incorporated into the main circuit board, called the motherboard, which is plugged into all the other components.

The central processing unit

The heart of a computer is the central processing unit (CPU). In addition to performing arithmetic and logic operations on data, it times and controls the rest of the system. Mainframe and supercomputer CPUs sometimes consist of several linked microchips, called microprocessors, each of which performs a separate task, but most other computers require only a single microprocessor as a CPU.

Most CPUs have three functional sections:

(1) the arithmetic/logic unit (ALU), which performs arithmetic operations (as addition and subtraction) and logic operations (such as testing a value to see if it is true or false);

(2) temporary storage locations, called registers, which hold data, instructions, or the intermediate results of calculations; and

(3) the control section, which times and regulates all elements of the computer system and also translates patterns in the registers into computer activities (such as instructions to add, move, or compare data).

A very fast clock times and regulates a CPU. Every tick, or cycle, of the clock causes each part of the CPU to begin its next operation and to stay synchronized with the other parts. The faster the CPU's clock, the faster the computer can perform its tasks.

The clock speed is measured in cycles per second, or hertz (Hz). Today's desktop computers have CPUs with 1 to 4 GHz (gigahertz) clocks. The fastest desktop computers therefore have CPU clocks that tick 4 billion times per second. The early PCs had CPU clocks that operated at less than 5 MHz. A CPU can perform a very simple operation, such as copying a value from one register to another, in only one or two clock cycles. The most complicated operations, such as dividing one value by another, can require dozens of clock cycles.

13. Find in the text English equivalents for the following Russian words and word combinations.

Состоять из нескольких соединенных микросхем, измеряться в герцах, синхронизироваться с другими частями, 4 млрд раз в секунду, за два цикла, разделить одно значение на другое, в добавок к чему-то.

14. Express your agreement or disagreement with the following statements. Give your grounds.

1. A working computer requires only hardware.
2. Software consists of instructions that tell the hardware what tasks to perform.
3. A digital computer's hardware is a system of 3 different devices.
4. The motherboard is usually incorporated into the bus.
5. The CPU consists of microchips.
6. The ALU performs arithmetic and logic operations.
7. Registers time and regulate all elements of the computer system.
8. The clock speed is measured in kilometres per hour.
9. The early PCs had CPU clocks that operated at 5 GHz.

15. Complete the sentences according to the text.

1. Hardware is the computer's ⋯.
2. A digital computer's hardware consists of the following elements: ⋯.
3. The main functional sections of most CPUs are ⋯.
4. Arithmetic operations the ALU performs include ⋯, and logic operations mean ⋯.
5. Registers are ⋯.
6. The control section translates ⋯.
7. Every cycle of the clock ⋯.
8. Today the fastest computers have CPU clocks that tick ⋯.

16. Ask your groupmates and let them answer:

a) about the function of the motherboard;
b) why hardware is a complex system;
c) what types of computers have several microchips;
d) how the clock speed influences the computer operation;
e) how many clock cycles complicated operations require.

17. Discuss in pairs and speak on

a) the difference between hardware and software;
b) the clock speed of the early computers and modern ones;
c) the speed required to perform a simple operation and the most complicated ones;
d) the three sections of the CPU and their functions.

18. Advances are made almost every day in microprocessor chip technology. What are some of the most recent advances? In what computers are these chips being

used? How might these advances affect the way we currently use microcomputers? Research the latest advances by reviewing the most current computer magazines and periodicals and write 120-150 words for the topic.

Input devices

Lexical and Grammar Exercises

1. Read the following words. Translate the sentences into Russian. Learn the words by heart.

1). input device ['ɪnput dɪ'vaɪs] - устройство ввода

An input device is a piece of computer equipment, which enables you to put information into a computer. To interact with your computer, you need input devices. A scanner is a common input device.

2). button ['bʌtn] - *кнопка, клавиша*

The mouse is a mechanical or optical device with buttons on the top. Positioning the cursor on to a particular icon and clicking the button on the mouse is a sufficient command to open the file. Tapping either of the buttons atop the mouse sends a signal to the PC.

Syn. ***key***

3). keyboard ['kiːbɔːd] - *клавиатура*

In 1977 Tandy Corporation added a keyboard and monitor to their computer. A keyboard contains keys for letters and numbers. Computer keyboards, which are much like typewriter keyboards, are the most common input devices.

4). sensor ['sen(t)sə] - *датчик; чувствительный или воспринимающий элемент*

A sensor is a device for measuring light, pressure, or temperature, and sending information back to a computer.

5). to point [pɔɪnt] - *показывать, указывать*

The hands of the clock pointed to a quarter past one. Light pens can be used to draw or to point to items or areas on the display screen. Touch-sensitive display screens allow users to point to items or areas on the screen.

6). screen [skriːn] - *экран, изображение на экране*

We have a face to express ourselves, a computer has a screen that acts like its face. The first computer cost $397 without a keyboard or screen. Touchscreen technology allows users to interact physically with what is shown on the screen.

7). cursor ['kɜːsə] - *курсор, указатель*

To move the cursor on the display screen, the user moves the mouse. On a computer screen, the cursor is a small shape that indicates where anything that is typed by the user will appear.

Syn. ***pointer***

8). to activate ['aktɪveɪt] - *активизировать; активировать, приводить в действие, включать*

She activated the account (учетная запись). The alarm can be activated by a laser beam. You can activate the system by buttons or voice recognition.

9). to create [krɪ'eɪt] - *порождать, производить; создавать, творить*

How do I create a new file? The project will create more than 500 jobs. The software makes it easy to create colourful graphs.

Syn. ***to make, to develop, to produce, to generate***

10). to select [sɪ'lekt] - *выбирать; отбирать; отметить (о пункте)*

The user selects operations, activates commands, or creates or changes images on the screen by pressing buttons on the mouse. Simon's been selected to go to the conference. We’ re going to select two students to represent the school.

Syn. ***to choose, to pick***

11). to transfer [tran(t)s'fɜː] - *передавать, переносить, пересылать*

I want you to transfer the files onto a disk. I'll transfer some money into my other account. The BIOS transfers control of the PC to the operating system on the hard disk.

Syn: ***to move, to transmit***

12). to convert (into) ['kɔnvɜːt] - *преобразовывать, конвертировать, переводить*

In the process, the light energy converts to heat energy. All homes had converted to digital TV by 2012, when the analogue signal was switched off. A bright light moves across the image, and the reflection is captured by a sensor, which converts the document to a digital image.

Syn. ***to change, to transform***

13). to edit ['edɪt] - *редактировать, готовить к печати*

The program enables you to copy and edit files in the usual way. You can go and edit the pages by clicking on the 'edit' tab (вкладка) which will appear on the top of (almost) each page. All machine translations need to be edited by a human translator.

14). to embed [ɪm'bed] - *внедрять; встраивать; вкладывать*

Some spyware embeds itself in the Windows.

15). value ['valjuː] - *величина, значение; стоимость, цена*

Let **y** have the value 33. We now know the value of two out of the three variables (переменная (величина)), which means we know enough to solve our problem. The winner will receive a prize to the value of £ 10,000.

16). to feed (fed, fed) [fiːd] - *снабжать, подавать, поставлять (например, информацию); вставлять (что-л. куда-л.)*

They fed erroneous information to us. The information was fed into the data store. He took the compact disc from her, then fed it into the player.

17). voice recognition [vɔɪs ˌrekəg'nɪʃ(ə)n]- *распознавание голоса или речи*

Voice recognition is the ability of a machine or program to identify words and phrases in spoken language. Voice-recognition circuitry digitizes spoken words and enters them into the computer.

2. Give English equivalents for the words in brackets.

1. On most computers, a keyboard is the primary text (устройство ввода) _____ .
2. Click the left mouse (клавиша) _____ twice.
3. Options can be selected by using the mouse or the (клавиатура) _____.
4. (Датчики) _____ detect movement in the room.
5. Change the (экран) _____ resolution.
6. The (курсор) _____ on your screen can indicate two things: 1) where your mouse pointer is, or 2) where the next character typed will be entered in a line of text.
7. You can (активировать) _____ the system by buttons or voice recognition.
8. (Создавать) _____ a new directory and put all your files into it.

3. Replace the following by one word.

1). A hardware or peripheral device used to send data to a computer. _____

2). A computer input device that enables a user to hand-draw images, animations and graphics, with a special pen-like stylus, similar to the way a person draws images with a pencil and paper. _____

3). A small device that a computer user pushes across a desk surface in order to point to a place on a display screen. _____

4). A device which inputs sound and can be used with voice recognition software. _____

5). An external input device used to type data into some sort of computer system whether it be a mobile device, a personal computer, or another electronic machine. _____

6). A computer peripheral or a stand-alone device that converts a document, film, graphic, or photograph to a digital image, manipulable through an appropriate software. _____

7). A hand-held or stationary input device used to capture and read information contained in a barcode. _____

8). A cursor control device used in computer games and assistive technology. _____

9). A computer cursor control device used in many notebook and laptop computers. _____

10). An input device that utilizes a light-sensitive detector to select objects on a display screen. _____

11). A real-time camera which transfers live images into the computer and can be used for video conferencing. _____

4. Fill in the blanks with the verbs from the active vocabulary.

1. I want you to _____ the files onto a disk.
2. Newspapers _____ letters before printing them.
3. You have to _____ the temperature readings from Fahrenheit to Celsius.
4. You should _____ a keyboard that is comfortable for you to use.
5. You must _____ Windows within 30 days of installation.
6. He can _____ figures into the computer, which then predicts the likely profit (прибыль).
7. Painting and drawing programs enable artists to _____ realistic images.

5. Match the words with similar meaning.

1. button a) to develop
2. to create b) to pick
3. to select c) to transform
4. to transfer d) key
5. to convert (into) e) mouse pointer
6. cursor f) to transmit

11. Look through the text and say what input devices are mentioned in the text. Read the text for the detailed information about the devices.

Input Devices

Components known as input devices let users enter commands, data, or programs for processing by the CPU. Computer keyboards, which are much like typewriter keyboards, are the most common input devices. Information typed at the keyboard is translated into a series of binary numbers that the CPU can manipulate.

Another common input device, the mouse, is a mechanical or optical device with buttons on the top and either a rolling ball or an optical sensor in its base. To move the cursor on the display screen, the user moves the mouse around on a flat surface. The user selects operations, activates commands, or creates or changes images on the screen by pressing buttons on the mouse.

A scanner is an input device which works like a photocopy machine. It is used when some information is available on a paper and it is to be transferred to the hard disc of a computer for further manipulation. The scanner captures images from the source which are then converted into the digital form that can be stored on the disc. These images can be edited before they are printed.

A barcode reader is a device used for reading barcoded data. Barcoded data is generally used in labelling goods, numbering the books etc. It may be a hand held scanner or may be embedded in a stationary scanner. The barcode reader scans a bar code image, converts it into an alphanumeric value which is then fed to the computer to which bar code reader is connected.

Other input devices include joysticks and trackballs. Light pens can be used to draw or to point to items or areas on the display screen. A sensitized digitizer (also graphics tablet) translates images drawn on it with an electronic stylus or pen into a corresponding image on the display screen. Touch-sensitive display screens allow users to point to items or areas on the screen and to activate commands. Voice-recognition circuitry digitizes spoken words and enters them into the computer.

12. In each sentence the verb has been omitted. Fill in the blanks from the words given. (Some sentences are active, and some are passive.)

to digitize to use to let to read

to control to convert to enter to translate

1. Input devices ⋯ users enter commands, data, or programs for processing by the CPU.

2. Information typed at the keyboard ⋯ into a series of binary numbers (2 variants are possible).

3. A mouse ⋯ to move the cursor on the display screen.

4. A scanner is used when you have some paper documents to ⋯. .

5. A barcode reader is an electronic device that can ⋯ and output printed barcodes to a computer.

6. The barcode reader ⋯ a bar code image into an alphanumeric value (2 variants are possible).

7. A joystick ⋯ the velocity of the cursor movement in various games.

8. Voice-recognition circuitry digitizes spoken words and ⋯ them into the computer.

13. Express your agreement or disagreement with the following statements.

1. Input devices allow users to enter commands, data, or programs for processing by the CPU.

2. Information typed at the keyboard is converted into a series of binary numbers.

3. By moving the mouse around on a flat surface, the user can move the cursor on the display screen.

4. The user can create or change images on the screen by using an optical sensor in its base.

5. A scanner is an input device which works like a photocopy machine.

6. Scanners are used to convert some information available on a paper into the digital form that can be stored on the disc.

7. Light pens translate drawn images into corresponding images on the display screen.

8. Touch-sensitive display screens enable users to point to objects on the screen.

9. Voice-recognition circuitry digitizes spoken words.

14. Complete the following sentences according to the text.

1. Input devices enable users⋯ .
2. The most common input device is ⋯.
3. Computer keyboards allow uses to ⋯ .
4. The mouse is used to ⋯ .
5. The scanner is used when ⋯
6. The barcode reader can perform the following functions: ⋯ .
7. A sensitized digitizer translates ⋯ .
8. Examples of input devices include: ⋯ .

15. Ask your groupmates and let them answer:

1. what input devices they know;
2. what functions the keyboard performs;
3. what sort of a device a mouse is;
4. whether they know what the term "light pen" refers to;
5. what applications of the digitizer they can name;
6. whether Bar Code Reader can convert a bar code image into an alphanumeric value;
7. what device digitizes spoken words and enters them into the computer.

16. Use the information provided in the text and the help box below to describe:

a) a scanner; b) a mouse; c) a keyboard; d) joysticks.

Describing functions:

for + Ving:

This is a device ***for controlling*** *the cursor and selecting items on the screen.*

used + to + **infinitive**

It's used to control

relative pronoun + verb

This is a device **which controls** ...

relative pronoun + used + to + infinitive

This is a device **which/that is used** to control

work by + Ving

It ***works by detecting*** *light from the computer screen.*

Describing features:

An optical mouse has an optical sensor instead of a ball underneath.

It usually features two buttons and a wheel.

You can connect it to a USB port.

A *wireless mouse works/operates without cables.*

It allows the user to answer multiple-choice questions and...

17. Do you agree or disagree with the following statement?

Good input devices not only provide the basic functionality that allows you to work with your computer, but also make your work much more pleasant. Come up

with sensible ideas, use specific reasons and examples to support your answer. Write 120-150 words for the topic.

Memory-Storage Devices

Lexical and Grammar Exercises

1. Master the active vocabulary.

1) RAM (random access memory) [ram] - *оперативная память, оперативное запоминающее устройство*

The random access memory used for temporary data storage is volatile. If the hard disk drive fails to save contents of the random access memory in time due to the power supply termination, the part of the written data is lost.

2) ROM (read-only memory) [rɔm] - *постоянное запоминающее устройство*

As the name indicates, data stored in ROM may only be read. A ROM chip is non-volatile storage and does not require a constant source of power to retain information stored on it. A ROM chip is used primarily in the start up process of a computer, whereas a RAM chip is used in the normal operations of a computer after starting up and loading the operating system.

3) auxiliary [ɔːg'zɪlɪ(ə)rɪ] - *вспомогательный, дополнительный*

The most used auxiliary verbs are the verbs *to be*, *to do* and *to have*. Auxiliary memory, also known as auxiliary storage, secondary storage, secondary memory or external memory, is a non-volatile memory that is not directly accessible by the CPU, because it is not accessed via the input/output channels (it is an external device).

4) floppy disk ['flɔpɪ dɪsk] - *дискета*, *гибкий (магнитный) диск*

A floppy diskette (a floppy or floppy disk) was first created in 1967 by IBM as an alternative to buying hard drives that were extremely expensive at the time. Floppy disks were a ubiquitous form of data storage and exchange from the mid-1970s well into the first decade of the 21st century.

5) hard disk [ˌhɑːd dɪsk] – жёсткий диск

A hard disk drive (HDD), hard disk, hard drive or fixed disk is a data storage device used for storing and retrieving digital information using one or more rigid ("hard") rapidly rotating disks (platters) coated with magnetic material. A hard drive can be used to store any type of data, including pictures, music, videos, and text documents.

6) to back up ['bak ʌp] - *1) выполнять резервное копирование (файла, системы, диска), создавать резервную копию (данных); 2) возвращать базу данных в состояние, предшествовавшее сбою*

The verb form is *to back up* in two words, whereas the noun is *backup*. Backups have two distinct purposes: to recover data after its loss, be it by data deletion or corruption, and to recover data from an earlier time,

7) malfunction [ˌmal'fʌŋkʃ(ə)n] - *сбой, неправильная работа, неправильное функционирование, нарушение работоспособности; ошибка (в программе)*

The red warning lights shall only go out when the malfunction has been corrected. In the event of a malfunction or breakdown, engineers are alerted immediately and can arrive at the scene day or night.

8) optical disc ['ɔptɪk(ə)l dɪsk] - *оптический диск*

The old optical disc system was developed in 1991 and its production operations began in 1992. Alternatively referred to as optical media, optical storage, optical disc

drive (ODD), and optical disk, an optical disc is any media read using a laser assembly. The most common types of optical media are Blu-ray, CDs, and DVDs.

9) flash drive ['flaʃ draɪv] - *флеш-накопитель; флешка*

I put our staff files onto a flash drive. There's no one looking for the flash drive. A USB flash drive (a data stick, a pen drive, a memory unit, a key chain drive, a thumb drive, a jump drive) is a portable storage device; it is often the size of a human thumb (hence the name), and it connects to a computer via a USB port.

10) recordable [rɪ'kɔːdəbl] - *одноразовой записи*

The first DVD recordable format, DVD-R (DVD "dash"), was developed and released in the market by Pioneer in 1997. The "plus" format, DVD+R (DVD "plus"), was developed by Philips and Sony in mid-2002 and used a more reliable technique to provide 'sector' address information.

11) rewritable [riːˈraɪtəbl] - *перезаписываемый*

A DVD-RW disc is a rewritable optical disc developed by Pioneer in November 1999. DVD+RW is a physical format for rewritable DVDs created by Philips and finalized in 1997 by the DVD+RW Alliance**.**

12) single-sided [ˈsɪŋgl-ˈsaɪdɪd] - *односторонний, с односторонней записью (о диске)*

When you print single-sided only one page is printed on each side of a sheet of paper. The term single-sided disk was not common until the introduction of the double-sided disk, which offered double capacity in the same physical size.

13) double-sided / dual-sided [ˈdʌblˈsaɪdɪd] / [ˈdju(ː)əlˈsaɪdɪd] - *с двусторонней записью, двусторонний*

From the Print dialog box, find and select the setting for double-sided printing. We've included double-sided copies for the archive. In computer science, a double-sided disk is a disk both sides of which are used to store data.

2. Give English equivalents for the words in brackets.

1. Data stored in (ПЗУ) _____ cannot be modified, or can be modified only slowly or with difficulty.

2. Although most (жесткие диски) _____ are internal, there are also stand-alone devices called external (жесткие диски) _____, which can backup data on computers and expand the available disk space.

3. Simplify your (процесс резервного копирования) _____ by organizing your files in a central folder.

4. Maybe it was some sort of a (неисправность) _____ .

5. (Флеш-накопители) _____ are an easy way to transfer and store information and are available in sizes ranging from such as 64 GB all the way up to 1 TB.

6. Philips offers one of the most complete ranges of CD & DVD (записывающих) _____ media.

7. (Перезаписываемые) _____ DVD+RW must be formatted before recording by a DVD recorder.

3. Replace the following by one word.

1. A flexible removable magnetic disk, typically encased in hard plastic, used for storing data. Also called a diskette. _____

2. The copying and archiving of computer data so it may be used to restore the original after a data loss event. _____

3. Semiconductor memory in which all storage locations can be rapidly accessed in the same amount of time. It forms the main memory of a computer, used by applications to perform tasks while the device is operating. _____

4. A plastic disk (also called a laser disc) on which digital data, as music or pictures, are stored as tiny pits in the surface and read by using a laser. _____

5. A data storage device containing flash memory that has no moving parts and does not need batteries or a power supply. _____

6. A rigid nonremovable magnetic disk with a large data storage capacity. _____

4. Fill in the blanks with the words from the active vocabulary.

1. At the beginning, all the information, which needs to be recorded, gets to the fast _____ (buffer) with maximum speed of the interface, and then it is being fixed on a magnetic disk.

2. Select the files or drive you'd like _____.

3. The _____ may have been due to operator error.

4. _____ is a type of non-volatile memory used in computers and other electronic devices.

5. In the new system, _____ are no longer used as storage media.

6. DVD _____ and DVD _____ refer to part of optical disc recording technologies.

7. The latest addition to the _____ memory family is flash memory which is much faster as compared to predecessors, since it does not involve any moving parts.

8. Manufacturers sold both _____ and _____ disks with the _____ disks being typically 50% more expensive than _____ disks.

5. Match the words with similar meaning.

1. to boot up a) failure
2. malfunction b) to duplicate
3. cellular c) concurrently
4. to back up d) to start
5. simultaneously e) reliable
6. secure f) mobile

6. Match the words with opposite meaning.

1. internal a) simultaneously
2. auxiliary b) temporary
3. sequentially c) external
4. permanent d) dangerous
5. secure e) main

10. Determine the meaning of the underlined words. Give the index of the corresponding translation.

1. Memory chips are **soldered onto** the **printed circuit boards**. ___ ___

2. Each chip consists of millions of transistors and **capacitors.** ___

3. Flash memory combines the **recordability** of RAM with the **persistence** of ROM. _____

4. Data is encoded on a disc as **a series of pits** and flat spaces, called **lands**. ___ ___

a) конденсаторы

b) сохранение, постоянство

c) припаиваются

d) возможности записи
e) ряд углублений
f) печатные платы
g) площадки

11. Look through the text and say how many types of memory-storage devices are mentioned in the text. Read the text for the detailed information about the devices.

Memory-Storage Devices

Most digital computers store data both internally, in main memory, and externally, on auxiliary storage units. As a computer processes data and instructions, it temporarily stores information in main memory, which consists of random-access memory (RAM). Random access means that each byte can be stored and retrieved directly, as opposed to sequentially as on magnetic tape.

Memory chips are soldered onto the printed circuit boards, or RAM modules, that plug into special sockets on a computer's motherboard. In dynamic RAM commonly used for general system memory, each chip consists of millions of transistors and capacitors. Each capacitor holds one bit of data, either a 1 or a 0. A set of 16 chips on a RAM module can store up to 1 GB of data. This kind of internal memory is also called read/write memory.

Another type of internal memory consists of a series of read-only memory (ROM) chips. The data stored in ROM persists when power is removed. ROM chips are stored with special manufacturer instructions that normally cannot be accessed or changed. The programs stored in these chips correspond to commands and programs that the computer needs in order to boot up to carry out basic operations. Because ROM is a combination of hardware (microchips) and software (programs), it is often referred to as firmware.

Auxiliary storage units supplement the main memory by holding programs and data that are too large to fit into main memory at one time. They also offer a more permanent and secure method for storing programs and data.

Floppy disks, hard disks, and magnetic tape store data by magnetically rearranging metal particles on their surfaces. Particles oriented in one direction represent 1s, and those oriented in another direction represent 0s. Floppy-disk drives can store from 1.4 to 2.8 MB of data on one disk and have been used primarily in PCs. Hard-disk drives, or hard drives, contain nonremovable magnetic media and are used with all types of computers. They access data very quickly and can store hundreds of GB of data.

Magnetic-tape storage devices are used together with hard drives on large computer systems that handle high volumes of constantly changing data. The tape drives, which access data sequentially and slowly, regularly back up the data in the hard drives to protect the system against loss of data during power failures or computer malfunctions.

Flash memory is a solid-state electronic storage medium that combines the recordability of RAM with the persistence of ROM. Since its invention in the late 1980s (by Intel and Toshiba), it has become standard for portable devices such as digital cameras, cellular telephones, PDAs, MP3 players, and video-game machines. In the early 21st century, flash memory devices that had storage capacities of up to 1 GB (and later more) began to serve as portable hard drives.

Optical discs are nonmagnetic auxiliary storage devices that developed from audio compact disc (CD) technology. Data is encoded on a disc as a series of pits and flat spaces, called lands, the lengths of which correspond to different patterns of 0s and 1s. One removable 43/4-inch (12-centimeter) CD contains a spiral track more than 3 miles (4.8 kilometers) long, on which nearly 1 GB of information can be stored. Read-only CDs, whose data can be read but not changed, are called CD-ROMs (compact disc‑read-only memory). Recordable CDs− called CD-R for write once/read many (WORM) discs and CD-RW for rewritable discs−have been used to periodically back up changing databases or to create (“burn”) one's own music CDs.

Digital video disc (DVD) is an optical format that uses a laser to read smaller data-storage regions. Although DVDs are the same size as CDs. Single-sided discs hold up to 4.7 GB.

There exist several types of recordable, as well as rewritable, DVDs.

12. Find in the text English equivalents for the following Russian words and word combinations.

Быть такого же размера, как и; защищать от; в отличие от чего-л.; иметь доступ к чему-л.; вплоть до, максимально; вмещаться на; потеря данных; в конце 1980-х; в начале 21 века.

13. Express your agreement or disagreement with the following statements. Give your grounds.

1. Most digital computers store data in main memory and on auxiliary storage units.
2. A computer temporarily stores information in ROM.
3. A set of 16 chips on a RAM module can store up to 1 MB of data.
4. The data stored in ROM persists when power is off.
5. The programs stored in ROM chips can be changed.
6. Hard-disk drives are used with all types of computers and can store hundreds of GB of data.
7. Flash memory devices serve as portable hard drives.
8. CDs appeared later than DVD.

14. Complete the sentences according to the text.

1. Internal computer storage implies storing data ⋯.
2. External storage means ⋯.
3. RAM provides ⋯ unlike ROM, that provides ⋯.
4. Firmware is another name for ⋯.
5. Auxiliary storage devices include ⋯.
6. ⋯ are magnetic storage media.
7. ⋯ is a solid-state electronic storage medium.
8. ⋯ are optical storage formats.

15. Ask your groupmates and let them answer:

a) what type of auxiliary storage they consider to be the most reliable;
b) what the difference between CDs and DVDs is;
c) to explain the difference between RAM and ROM;
d) if hard drives always contain magnetic media;
e) what devices are used to back up data;
f) when and who invented flash memory-storage;
g) if they know the length of a CD track;

h) which portable devices use flash memory.

16. Discuss in pairs and explain

a) the difference between external and internal storage;

b) the difference between magnetic, optic and electronic storage media;

c) the difference between main, auxiliary memory storage devices;

d) how storage devices differ according to their storage capacity.

17. Storing Your Life in the Clouds. Cloud storage is a new way to save your files that has made many hard-storage technologies obsolete. Is cloud computing an amazing tool? Share your ideas and express your opinion in an essay of 120-150 words.

Output devices

Lexical and Grammar Exercises

1. Read the following words. Translate the sentences into Russian. Learn the words by heart.

1). cathode-ray tube [ˈka θ əʊd reɪ tjuːb] - *электронно-лучевая трубка, ЭЛТ*

German Karl Ferdinand Braun invented the cathode-ray tube oscilloscope in 1897. The cathode-ray tube (CRT) is a vacuum tube containing one or more electron guns, and a screen used to view images. Essentially, our cathode-ray tube is just two electrodes in a vacuum chamber with a high voltage applied between them.

2). liquid-crystal display (LCD) [ˈlɪkwɪd 'krɪst(ə)l dɪsˈpleɪ] / [ˌelsiː'diː] - *жидкокристаллический экран*

A liquid crystal display (LCD) technology was developed by George Heilmeier and patented by James Fergason in the early 70s. A liquid-crystal display (LCD) is a flat-panel display or other electronic visual display that uses the light-modulating properties of liquid crystals.

3). light emitting diode (LED) [laɪt ɪˈmɪtɪŋ 'daɪəʊd] / [lɛd]- *светоизлучающий диод, светодиод*

Nick Holonyak, Jr. is an American engineer and educator, noted particularly for his invention of a light-emitting diode (LED) in 1962. A light-emitting diode (LED) is a two-lead semiconductor (двухпроводной полупроводник) light source.

4). to accept [əkˈsept] - *принимать; допускать; считать приемлемым или допустимым*

A printer is a device that accepts text and graphic output from a computer and transfers the information to paper. This machine only accepts coins. The college he applied to has accepted him.

5). inkjet printer ['ɪŋkʤet 'prɪntə] - *струйный принтер*

An inkjet printer is a printer that uses very small jets (распылители, форсунки) to blow ink onto paper in order to form letters, numbers. The best known printers are inkjet printers. This inkjet printer can make 15 black or colored copies per minute in A4 size paper.

6). resolution [ˌrez(ə)'luːʃ(ə)n] - *разрешение, разрешающая способность*

The four printer qualities of most interest to most users are: colour, resolution (measured in dots per inch (dpi)), speed, memory. If you think the screen resolution is wrong, you will need to check some sections in your configuration. Click on the suitable resolution for the preview.

7). medium ['miːdɪəm] (pl.mediums, media) - *[передающая] среда, среда передачи; носитель (информации)*

An inkjet printer is one that propels droplets of ink directly onto the medium. The Internet is a borderless, global communications medium used by individuals and companies around the world. The Internet as a medium revealed new difficulties related to trade, work and other matters.

8). to figure out [ˈfɪgər aʊt] - *вычислять; понимать, постигать*

An electronic circuit in the printer figures out what data needs to look like on the page. Tom couldn't figure out how to export JPEG files. It's the best time to figure out which buttons to push.

9). pattern ['pat(ə)n] - *образец, шаблон; закономерность; характер; образ, изображение*

An electronic circuit in the printer makes a laser beam scan back and forth across a drum inside the printer, building up a pattern of static electricity. Standard documents are documents having common pattern, but filled with individual data for every person. If you want, you can save the pattern under a different name.

10). to attract [ə'trakt] - *притягивать, привлекать*

The static electricity attracts onto the page a kind of powdered ink called toner. Opposites attract. Simple sound output, such as the buzzer (зуммер, звуковой сигнализатор), is often used to attract the attention of the user.

11). to bond [bɔnd] - *связывать, соединять, скреплять*

A fuser unit bonds the toner to the paper. Linux allows us to bond multiple network interfaces into single interface. It takes less than 10 minutes for the two surfaces to bond.

12). drawing ['drɔːɪŋ] - *чертёж; рисунок; изображение; рисование, черчение*

The drawing has two dimensions. A plotter is an instrument (usually driven by a computer) for drawing graphs or pictures. Before production begins, a detailed drawing is made for each of the details.

13). to accommodate [ə'kɔmədeɪt] - *подгонять; приспосабливать, размещать; вмещать*

The plotter was the first computer output device that could accommodate full-size engineering and architectural drawings. The second version of XT motherboard (1986‑1987) could accommodate 640 KB. A LAN (локальная сеть) can be connected to another LAN to accommodate more computers.

14). speaker ['spiːkə] - *акустическая колонка, динамик*

Audio speakers allow the user to hear sounds, such as music or spoken words. He bought a CD player and radio with two ultra-slim speakers. You can improve the sound of music and video games by installing computer speakers.

15). headphones ['hedfəunz] - *наушники*

Head-mounted speakers are called headphones. The first headphones (or at least their early ancestors) were used by telephone operators. The student uses headphones to minimize distraction and filter external noise during testing.

16). headset ['hedset] - *гарнитура*

A headset is a pair of headphones with a microphone attached. Headsets are commonly used in technical support and customer service centers and allows the employee to talk to a customer while typing information into a computer.

2. Work in pairs and match the underlined terms (1-9) with their definitions (a-i):

1). An input device converts incoming data and instructions into a pattern of electrical signals in binary code.

2). Print resolution is measured in terms of number of dots per inch (dpi).

3). Plotters interpret computer commands and makes line drawings on paper using multicolored automated pens.

4). Two components are needed for the audio output: a sound card and speakers.

5). Flash memory is data-storage medium used with computers and other electronic devices.

6). Most inkjet printers are relatively small and can fit in tight spaces.

7). A laser printer can produce excellent print quality, both black and white, as well as color.

8). Computer headsets typically feature one of two types of connectors for connecting to a computer: mini plug or USB.

9). Headphones can be used by many different people and may need to be frequently cleaned to help prevent the spreading of germs.

a). the power of a computer screen, printer, etc. to give a clear image, depending on the size of the dots that make up the image;

b). a hardware device connected to a telephone or computer that allows the user to talk and listen while keeping their hands free;

c). the part of a radio, computer or piece of musical equipment that the sound comes out of;

d). the regular way in which something happens, develops, or is done;

e). a device that prints by spraying streams of quick-drying ink on paper;

f). a picture, a plan or a sketch made by means of lines, esp. one made with a pencil or pen without the use of colour;

g). hardware device that either plugs into your computer or your speakers to privately listen to audio without disturbing anyone else;

h). a device that utilizes laser technology to print images on the paper;

i). a term used to describe any type of computer storage.

3. Complete the sentences below with the correct form of the terms from exercise 2:

1. Large ⋯. are essentially just two loudspeakers mounted on a strap that clamps firmly over your head.

2. A ⋯ is efficient on toner use, compared to inkjet printer usage of ink.

3. A ⋯ has a higher cost per page when it comes to printing, due to their rather inefficient usage of ink.

4. With monitors, the ⋯ is measured by the number of pixels horizontal by pixels vertically; for example 640x480.

5. Leonardo da Vinci (1452-1519) made ⋯ of gear-driven calculating machines.

6. When computers were originally released, they had on-board (встроенный) … that generated a series of different tones and beeps.

7. A headphone may be equipped with a microphone, in which case it is called a ⋯ .

8. A general ⋯ began to emerge in the data.

9. Architectural ⋯ serve the purpose of conveying intent (замысел), scope and quantity.

9. Read the text.

Output Devices

Components that let the user see or hear the results of the computer's data processing are known as output devices. The most common one is the video display terminal (VDT), or monitor, which uses a cathode-ray tube (CRT), liquid-crystal display (LCD), light emitting diode (LED), plasma or 3D technologies to show characters and graphics on a television-like screen.

A printer is a device that accepts text and graphic output from a computer and transfers the information to paper. The best known printers are the inkjet printer and the laser printer. The four printer qualities of most interest to most users are: colour, resolution (measured in dots per inch (dpi)), speed, memory.

An inkjet printer is one that propels droplets of ink directly onto the medium. Today, almost all inkjet printers produce colour. A laser printer uses a laser to print a full page at a time. When you print something, your computer sends electronic data to your printer. An electronic circuit in the printer figures out what all this data means and what it needs to look like on the page. It makes a laser beam scan back and forth across a drum inside the printer, building up a pattern of static electricity. The static electricity attracts onto the page a kind of powdered ink called toner. Finally, a fuser unit bonds the toner to the paper.

A data projector is a device that projects computer output. It is widely used in classrooms. A data projector shows a copy of what is viewed on a monitor.

A plotter is a graphics printer that draws images with ink pens. It actually draws point-topoint lines directly from vector graphics files. The plotter was the first computer output device that could print graphics as well as accommodate full-size engineering and architectural drawings.

Most PCs also have audio speakers. These allow the user to hear sounds, such as music or spoken words, that the computer generates. Head-mounted speakers are called headphones.

Some variations of headphones include headsets (headphones and microphone) and earphones.

10. Express your agreement or disagreement with the following statements.

1. Output devices are components allowing users to see or hear the results of the computer's data processing.

2. A monitor shows characters and graphics on a television-like screen.

3. A printer is a device that accepts text and graphic output from paper and transfers the information to the computer.

4. The four printer qualities of most interest to users are: colour, resolution, print speed and cartridge capacity.

5. A laser printer propels droplets of ink directly onto paper.

6. An electronic circuit in a laser printer makes a laser beam build up a pattern of static electricity on paper.

7. A pattern of static electricity, built up by a laser beam, attracts toner.

8. A data projector shows a copy of data displayed on a monitor.

9. The plotter was the first computer output device that could print graphics as well as accommodate full-size engineering and architectural drawings.

10. Audio speakers let users hear sounds, generated by computers.

11. Complete the following sentences according to the text.

1). Output devices allow users to⋯ .

2). The most common output device is ⋯.

3). Printers let users ⋯ .

4). A data projector is used to ⋯ .

5). A plotter is used when users need ⋯ .

6). Audio speakers convert ⋯ into ... .

12. Ask your groupmates and let them answer:

1). what output devices they can name;

2). what types of monitors they know;

3). about the difference in operation of laser and ink-jet printers;

4). about the applications of a plotter;

5). what a data projector is used for;

6). what devices can convert electrical audio signal into corresponding sounds.

13. Imagine that you have received an email from your friend, who is planning to buy a printer. Your friend wants you to give him some recommendations. Write him an email in 120-150 words.

Useful phrases

· **for the opening:**

Thank you / Many thanks for your email.

It was good / nice / great to hear from you again.

I’m sorry I haven’t written / haven't been in touch for such a long time.

It’s ages since I’ve heard from you.

I hope you're well.

How are things? / How are you? / How’s it going?

· **for giving recommendations:**

Why don’t you ⋯?

Maybe you could ⋯?

How about (...doing sth)⋯?

Whatever you do, don’t ⋯⋯.

Make sure you⋯⋯. .

Be sure to ⋯.

You really must ⋯. .

You’d be best off (...doing sth).

I’m sure you will enjoy (...doing sth).

· **for the closing:**

Anyway, I must go and get on with my work!

I guess it's time I got on with that studying I've been avoiding.

Anyway, don't forget to let me know ⋯⋯⋯.

We must try and meet up soon.

I can't wait to hear from you.

See you soon.

All the best.

Take care.

Write your first name on the last line.

Software

Lexical and Grammar Exercises

1. Master the active vocabulary.

1) systems software [ˈsɪstəmz 'sɔftwɛə] - *системное программное обеспечение*

Examples of system software (systems software) include operating systems, computational science software, game engines, industrial automation, and software as a service applications. Since system software runs at the most basic level of your computer, it is called "low-level" software.

2) applications software [ˌaplɪˈkeɪʃ(ə)nz 'sɔftwɛə] - *прикладное программное обеспечение*

Software that allows users to create documents (e.g. Microsoft Word), edit pictures (e.g. Adobe Photoshop), browse the Internet (e.g. Microsoft Internet Explorer), or check their e-mail (e.g. Microsoft Outlook) are considered to be application software.

3) load [ləud] - *загрузка, загрузить*

Load refers to beginning or executing a program by moving (loading) the necessary information from a diskette drive, such as a hard drive, into a computer's memory. I hate infinite scrolling, because I believe that users should have the right to choose if they want to load the next page or not.

4) operating system [ˈɒpəreɪtɪŋ 'sɪstəm] - *операционная система*

The system software is installed on your computer when you install your operating system. The operating system (OS) is the most important program that runs on a computer.

5) set [set] - *1) множество; совокупность; семейство; ряд; последовательность 2) набор; комплект*

There's a new set of values, a new set of things people value. The following set of instructions for using a PC includes a basic introduction to the keyboard, mouse, desktop, and Windows.

6) directory [dɪ'rekt(ə)rɪ], [daɪ-] - *каталог*

The directory listing showed the total amount of disk space the files occupied as well as their names, modification dates, and other details. You can always save the file into another directory. Look up their number in the telephone directory.

7) folder ['fəuldə] - *папка*

If the message is starred, it will be downloaded in the 'Starred' folder. This folder has 17,000 photos -- over 20 gigabytes of information -- and it's growing constantly.

8) advanced [əd'vɑːn(t)st] - *современный, передовой; продвинутый; повышенный*

His ideas were too far advanced to be accepted by ordinary people. You can learn about advanced search features here.

9) support [sə'pɔːt] - *1) поддержка; помощь; сопровождение; 2) поддерживать; обеспечивать*

The terminal supports the Advanced Security technology and features a multilingual interface. There are companies that provide free support and help to all users with computer related issues. We offer IT support for business organizations of different sizes and spheres of activities.

10) graphical user interface (GUI) [ˈgrafɪkəl ˈjuːzər ˈɪntəˌfeɪs] / [ˈguiː] / [ʤiːjuːˈaɪ] - *графический интерфейс пользователя*

A GUI (pronounced as either G-U-I or gooey) allows using icons or other visual indicators to interact with electronic devices, rather than using only text via the command line. The GUI was first developed at Xerox PARC by Alan Kay, Douglas Engelbart, and a group of other researchers in 1981. GUI operating systems are easy to learn and use because commands do not need to be memorized.

11) database ['deɪtəbeɪs] - *база данных*

A database (a databank or a datastore, sometimes abbreviated as a DB) is a large quantity of indexed digital information. A database can be searched, referenced, compared, changed or otherwise manipulated with optimal speed and minimal processing expense.

12) spreadsheet ['spredʃiːt] - *электронная таблица*

Applications software comprises programs designed for an end user, such as word processors, database systems, and spreadsheet programs. A worksheet, or a spreadsheet is a file made of rows and columns that help sort data, arrange data easily, and calculate numerical data. A good example of how a spreadsheet may be used is creating an overview of your bank's balance.

13) command line [kə'mɑːnd] - *командная строка*

Sometimes referred to as the command screen or a text interface, the command line is a user interface that is navigated by typing commands at prompts, instead of using the mouse. Some command-line tools require the user to have administrator-level privileges on source and target computers.

14) multiprocessing [ˌmʌltɪˈprəʊsɛsɪŋ] - *многопроцессорная обработка*

Multiprocessing is the use of two or more central processing units (CPUs) within a single computer system. Multiprocessing also refers to the ability of a system to support more than one processor and/or the ability to allocate tasks between them.

2. Give English equivalents for the words in brackets.

1. (Системное ПО) _____ refers to the files and programs that make up your computer's (операционную систему) _____ .

2. When writing (набор) _____ of instructions you must place the instructions you want to be carried out in the correct order.

3. If you can't find the confirmation email, check your email's spam (папку) _____ .

4. (Каталог) _____ is a division in a hierarchical structure that organizes the storage of computer files on a disk.

5. (Графический пользовательский интерфейс) _____ uses windows, icons, and menus to carry out commands, such as opening, deleting, and moving files.

6. For a (база данных) _____ to be truly functional, it must not only store large amounts of records well, but be accessed easily.

7. (Многопроцессорная обработка) _____ is an ability of a computer to utilize two or more processors for computer operations.

3. Replace the following by one word.

1. Software on a computer that is designed to control and work with computer hardware. _____

2. An icon on a computer screen that can be used to access a directory containing related files or documents. _____

3. A collection of objects having specific common properties. _____

4. The software that supports a computer's basic functions, such as scheduling tasks, executing applications, and controlling peripherals. _____

5. A file that consists solely of a set of other files. _____

6. A term used to describe a group of individuals or help documents used to assist users with a product or group of products. _____

7. The line on the display screen where a command is expected. _____

8. A structured set of data held in a computer, esp. one that is accessible in various ways. _____

4. Fill in the blanks with the words from the active vocabulary.

1. Restart the browser and try _____ the applet.

2. Develop _____ of instructions advising users how to perform a specific task.

3. You can also create a new _____:Touch the folder box.

4. I'll show you the _____ technologies we use to test this gear.

5. _____ is required when a user experiences a problem or would like additional information on a product.

6. There are several common types of _____ . Each type of _____ has its own data model (how the data is structured).

7. Today, Microsoft Excel is the most popular and widely used _____ program, but there are also many alternatives.

8. _____ is the ability to carry out more than one process simultaneously.

5. Match the words with similar meaning.

1. to allow a) progressive
2. fundamental b) to handle
3. to manipulate c) to accomplish
4. to perform d) to enable
5. concurrently e) basic
6. advanced f) simultaneously

6. Match the words with opposite meaning.

1. similar a) auxiliary
2. main b) single
3. secure c) different
4. multiple d) general
5. specific e) unprotected

12. Determine the meaning of the underlined words. Give the index of the corresponding translation.

1. A version of UNIX called Linux **gained popularity** in the late 1990s for PCs. ____

2. Applications software consists of programs that instruct the computer to accomplish specific tasks for the user, such as word processing, operating a spreadsheet, **managing accounts in inventories**, **record keeping**, or playing a video game. ____ ____

3. It may also include **networking services** that allow programs running on one computer to communicate with programs running on another.

4. Database systems often manage huge amounts (many gigabytes) of data in **a secure manner.**

а) делопроизводство

b) сетевые услуги
c) приобрел популярность
d) безопасный режим
e) управление учетными записями товарно-материальных запасов

13. Look through the text and say what types of software are mentioned in it. Read the text for the detailed information about software.

Software

Two types of software instruct a computer to perform its tasks−systems software and applications software. Systems software is a permanent component of the computer that controls its fundamental functions. Different kinds of applications software are loaded into the computer as needed to perform specific tasks for the user. Applications software requires the functions provided by the systems software.

A computer's operating system (OS) is the *systems software* that allows all the dissimilar hardware and software components to work together. It consists of a set of programs that manages all the computer's resources, including the data in main memory and in auxiliary storage. Parts of an OS may be permanently stored in a computer's ROM.

Drivers are OS programs that manage data from different I/O devices. Drivers understand the differences in the devices and perform the appropriate translations of input and output data.

Computers write data to, and read from, auxiliary storage in collections called files. The file system of an OS allows programs to give names to files, and it keeps track of each file's location. A file system can also group files into directories or folders.

An OS allows programs to run. When a program is running, it is in the process of instructing the computer. An OS manages processes, each of which consists of a running program and the resources that the program requires. An advanced OS supports multiprocessing to enable several programs to run simultaneously. It may also include networking services that allow programs running on one computer to communicate with programs running on another.

Modern operating systems provide a graphical user interface (GUI) to make the applications software easier to use. A GUI allows a computer user to work directly with an application program by manipulating text and graphics on the monitor screen through the keyboard and a pointing device such as a mouse rather than solely through typing instructions on command lines. The Apple Computer company's Macintosh computer, introduced in the mid-1980s, had the first commercially successful GUI-based software.

Another example of systems software is a database system. A database system works with the file system and includes programs that allow multiple users to access the files concurrently.

Database systems often manage huge amounts (many gigabytes) of data in a secure manner. Computers that use disk memory-storage systems are said to have disk operating systems (DOS). Popular operating systems for PCs are MS-DOS and Windows, developed by the Microsoft Corporation in the early 1980s and 1990s, respectively. Workstations, servers, and some mainframe computers often use the UNIX OS originally designed by Bell Laboratories in the late 1960s. A version of UNIX called Linux gained popularity in the late 1990s for PCs.

Applications software consists of programs that instruct the computer to accomplish specific tasks for the user, such as word processing, operating a spreadsheet, managing accounts in inventories, record keeping, or playing a video game. These programs, called applications, are run only when they are needed. The number of available applications is as great as the number of different uses of computers.

14. Find in the text English equivalents for the following Russian words and word combinations.

Состоять из, управлять текстом и графикой на экране при помощи клавиатуры; вводить инструкции в командную строку; в безопасном режиме; в начале 1980-х; в конце 1990-х.

15. Express your agreement or disagreement with the following statements. Give your grounds.

1. Word processor is a kind of systems software.
2. Systems software and applications software instruct a computer to perform its tasks.
3. An OS is the applications software that allows all the hardware and software components to work together.
4. Drivers are OS programs that manage data from different I/O devices.
5. Files are collections of auxiliary storage where data is written to and read from.
6. A GUI allows a user to work with the monitor screen.
7. Database systems and operating systems are examples of the systems software.
8. The keyboard is a pointing device.
9. MS-DOS and Windows were developed by the Apple Computer company.

16. Complete the sentences according to the text.

1. There are two types of software ….
2. Systems software is ….
3. Systems software is represented by ….
4. The function of drivers is ….
5. An OS manages processes consisting of ….
6. An advanced OS supports ….
7. Operating systems provide ….
8. The first commercially successful GUI-based software was incorporated into ….
9. Applications are programs ….

17. Ask your groupmates and let them answer:

a) what operating system they use and why they prefer it;
b) about the function of a graphical user interface;
c) if they know which type of memory stores parts of an operating system;
d) what applications software they use most often and what for;
e) to explain what the concept “multiprocessing” means.
f) what facts about software history they know.

18. What was earlier:

the invention of flash memory the development of Linux
the introduction of the first GUI-based software the development of Windows
the invention of the keyboard the invention of the mouse
the development of the UNIX OS the development of MS-DOS

19. Discuss in pairs and

a) explain the difference between systems software and applications software;
b) explain the difference between an operating system and a database system;
c) speak about types of operating systems;
d) speak about drivers;
e) speak about the file system of an operating system and its functions.

20. Describe operating systems used nowadays.
Compare Linux and Windows in terms of their merits and shortcomings.
Consider the following points:

a) full access / no access;
b) licensing freedom / restrictions;
c) online peer support / paid-desk support;
d) flexibility / rigidity;
e) ease of usage;
f) command line / no command line;
g) centralized / noncentralized application installation;
h) automated / nonautomated removable media;
I) multilayered run levels / single-layered run level.

21. What do you think is more expensive – hardware or software? Has anyone in your group ever purchased software? Why do you think piracy (audio, video, and computer software) still exists? Is it possible to stop software piracy on the Internet? Share your ideas on the topic in an essay of 120-150 words.

Programming

Lexical and Grammar Exercises

1. Learn the active vocabulary.

1). profit ['prɔfit] - *прибыль, выгода, полезность, польза*

Individual programmers can work for profit. We should be able to sell our software at a profit**.** The CD generated record profits.

Syn. ***benefit***

2). be responsible for [rɪ'spɔn(t)səbl] - *быть ответственным за что-л.*

Individual programmers are solely responsible for an entire project. We are all equally responsible for the project success. Who was responsible for the mistake?

3). algorithm ['alg(ə)rɪd(ə)m] - *алгоритм*

An algorithm is a series of mathematical steps, especially in a computer programme, which will give you the answer to a particular kind of problem or question. Computer programs consist of data structures and algorithms.

4). sequence ['si:kwən(t)s] - *последовательность; ряд; очерёдность, порядок*

Algorithms are the sequences of steps that a program follows to process the information. Put these numbers into the correct sequence. The computer generates a random sequence of numbers.

Syn. ***series***

5). specifications (specs) [ˌspesəfi'keɪʃ(ə)nz] - *спецификация; технические условия; технические требования*

Create the software's specifications, a detailed description of the required tasks and how the programs will instruct the computer to perform those tasks.

6). flowchart [ˈfləʊʧɑːt] - *блок-схема, структурная схема; схема технологического процесса; технологическая карта*

Flowchart is a diagram representing the sequence of logical steps required to solve a problem. The software specifications often contain diagrams known as flowcharts. Use online flowchart software to create flowcharts, diagrams and more.

7). to encode [ɪn'kəud], [en-] - *кодировать, шифровать*

The code is the program instructions encoded in a particular programming language. We compared the human mind to a computer which actively seeks information to process, encodes it and stores it for future use.

Syn. ***to code, to encipher***

8). to submit [səb'mɪt] - *представлять, подавать*

The program is submitted for alpha testing, in which individuals within the company independently test the program. Completed projects must be submitted by 10 March.

9). to eliminate [ɪ'lɪmɪneɪt] - *устранять, исключать, уничтожать, ликвидировать*

The goal is to develop a better way of eliminating bugs and vulnerabilities (уязвимость). Credit cards eliminate the need to carry a lot of cash. This procedure does not completely eliminate the possibility of an accident. This page contains step by step instructions on how to remove viruses from your computer.

Syn. ***to remove, to expel, to eradicate***

10). to debug [ˌdiːˈbʌg] - *отлаживать (программу)*

The program is debugged to eliminate programming mistakes, which are commonly called bugs. A programming tool (инструментальное программное средство) is a computer program that software developers use to create, debug, maintain, or otherwise support other programs and applications.

11). to release [rɪ'liːs] - *выпускать (версию продукта)*

The product is released for use or for sale after it has passed all its tests. He’s planning to release a new programme. The game was originally released in 2002.

12). to verify ['verɪfaɪ] - *подтверждать; проверять, контролировать*

If the product has been verified to meet all its requirements, it is released. Please verify that there is sufficient memory available before loading the program. Please verify that your password was entered correctly.

Syn. ***to check, to confirm, to examine***

13). to proceed [prə'siːd] - *развиваться, протекать (о процессе)*

These steps rarely proceed in a linear fashion. As software design and development proceed, the design elements and the actual code must meet the requirements that define them. Does the software developer present a clear plan of how the process will proceed?

Syn. ***to go on***

14). to fail [feɪl] - *потерпеть неудачу; не иметь успеха*

If the software fails its alpha or beta tests, the programmers will have to go back to an earlier step. She failed to get into Brest State Technical University. I failed my English test the first time I took it.

Ant. ***to pass*** *(a test, an exam)*

2. Give English equivalents for the words in brackets.

1. The content of the programme should follow a logical (последовательность) _____ .

2. The programme has been developed exactly to our (технические требования) _____ .

3. It was impossible (подтверждать) to _____ her statement.

4. The game is due to be (выпускать) _____ in time for Christmas.

5. You must must (предоставлять) _____ applications before 31 January.

6. They cannot (устранять) _____ risk altogether.

7. She's been hired to write and (отлаживать) _____ computer programs.

8. Credit cards are (кодировать) _____ with cardholder information.

3. Replace the following by one word.

1. A detailed description of how something is, or should be, designed or made. _____

2. A diagram that shows the connections between the different stages of a process or parts of a system. _____

3. A process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer. _____

4. A financial gain. _____

5. To identify and remove errors from (computer hardware or software). _____

6. To make a film, recording, or programme available to the public. _____

7. To be unable to meet the standards set by a test of quality or eligibility. _____

8. To make sure or demonstrate that something is true, accurate, or justified. _____

4. Fill in the blanks with the words from the active vocabulary.

1. A _____ shows how an input becomes an output.

2. The programme has been designed exactly to customers' _____.

3. If debugging is the process of _____ bugs, then programming must be the process of putting them in.

4. Please _____ your username and password to access this page.

5. Hardware design and development _____ parallel with algorithm specification and coding.

6. How do you troubleshoot when the software installation _____ and the error message is not clear enough for you to debug the problem?

7. LabVIEW (graphical programming language) was originally _____ for the Apple Macintosh in 1986.

8. An algorithm specifies the _____ of steps that the program must take to complete the work.

9. Candidates for the degree are required to _____ a 30,000-word thesis.

5. Match the pairs of the words with similar meaning.

1. to eliminate a) to go on
2. to proceed b) to confirm
3. sequence c) to get rid of
4. to verify d) to encipher
5. to encode e) series

6. Match the pairs of the words with opposite meaning.

1. to pass a) to create
2. to eliminate b) loss
3. to encode c) to fail

4. profit d) to decipher

11. a) Work in pairs. Read the title of the text. Before reading the text, think of some questions you would like to find answers to regarding the topic.

b) Read the text. Does it answer your questions?

Programming

Software is written by professionals known as computer programmers. Most programmers in large corporations work in teams, with each person focusing on a specific aspect of the total project. Individual programmers can work for profit, as a hobby, or as students, and they are solely responsible for an entire project.

Computer programs consist of data structures and algorithms. Data structures represent the information that the program processes. Algorithms are the sequences of steps that a program follows to process the information. Generally, programmers create software by using the following development process:

(1) Understand the software's requirements, which are the description of what the software is supposed to do.

(2) Create the software's specifications, a detailed description of the required tasks and how the programs will instruct the computer to perform those tasks. The software specifications often contain diagrams known as flowcharts that show the various modules of the programs, the order of the computer's actions, and the data flow among the modules.

(3) Write the code–the program instructions encoded in a particular programming language.

(4) Test the software to see if it works according to the specifications and possibly submit the program for alpha testing, in which other individuals within the company independently test the program.

(5) Debug the program to eliminate programming mistakes, which are commonly called bugs.

(6) Submit the program for beta testing, in which users test the program extensively under real-life conditions to see whether it performs correctly.

(7) Release the product for use or for sale after it has passed all its tests and has been verified to meet all its requirements.

These steps rarely proceed in a linear fashion. Programmers often go back and forth between steps 3, 4, and 5. If the software fails its alpha or beta tests, the programmers will have to go back to an earlier step.

12. Express your agreement or disagreement with the following statements.

1. Software is written by computer programmers.
2. Individual programmers are solely responsible for an entire project.
3. Each programmer, working for a large corporation, focuses on the total project.
4. Data structures and algorithms constitute computer programs.
5. An algorithm is the information processed by the program.
6. The sequences of steps, followed by a program to process the information, are called data structures.
7. The software's specs are the program instructions encoded in a particular programming language.
8. Flowcharts show the various modules of the programs, the sequence of the computer's actions, and the data flow among the modules.
9. Beta testing takes place at the developer's site by the internal teams.

10. Programming mistakes are commonly called bugs.

11. If the product has passed all its tests and meets all its requirements, it can be released for use or for sale.

13. Complete the following sentences according to the text.

1). Software is written by ⋯ .

2). Programmers can work for ⋯ or as ... .

3). Computer programs are made up of ⋯ .

4). The software's requirements are ⋯ .

5). Flowcharts show ⋯ .

6). The code is ⋯ .

7). Testing software includes ⋯ .

8). Debugging means ⋯ .

9). The product can be released when ⋯ .

14. Ask your groupmates and let them answer:

1. who writes software;
2. what steps of software development they know;
3. about the difference between alpha and beta testing;
4. about the application of flowcharts;
5. what the term "debugging" means;
6. when the product is ready for use or for sale;
7. why programmers often go back and forth between software development steps.

15. Do the research on the Internet to get some additional information about software development steps. Make a presentation using visual aids. The box below can help you make a good presentation.

The sentences and phrases below follow the logical progression of a well-balanced presentation.

Welcoming

☐ *Good morning and welcome to* [name of company, name of conference hall, hotel, etc.].

☐ *Thank you all very much for coming today.*

☐ *I hope you all had a pleasant journey here today.*

Introducing yourself

☐ *My name is Mark Watson from* [name of university] ... .

☐ *Let me introduce myself; my name is Mark Watson from… .*

Introducing your presentation

☐ *The purpose of today's presentation is to … .*

☐ *The purpose of my presentation today is to … .*

☐ *In today's presentation I'd like to … show you … . / explain to you how … .*

☐ *In today's presentation I'm hoping to … give you an update on… / give you an overview of … .*

☐ *In today's presentation I'm planning to … look at … . / explain … .*

You can also outline your presentation to give the audience a clear overview of what they can expect:

☐ *In today's presentation I'm hoping to cover three points:*

☐ *firstly, … , after that we will look at … , and finally I'll … .*

☐ *In today's presentation I'd like to cover three points:*

☐ *firstly, … , secondly … , and finally … .*

Starting the presentation

☐ *To begin with … .*

☐ *To start with … .*

☐ *Let's start/begin by looking at … .*

☐ *I'd like to start by looking at … .*

Closing a section of the presentation

☐ *So, that's an overview of … .*

☐ *I think that just about covers … .*

Beginning a new section of the presentation

☐ *Now let's move on to … .*

☐ *Now let's take a look at … .*

☐ *Now I'd like to move on to … .*

☐ *Next I'd like to take a look at … .*

☐ *Moving on to the next part, I'd like to … .*

☐ *Moving on to the next section, let's take a look at … .*

Concluding and summarising the presentation

☐ *Well, that brings us to the end of the final section. Now, I'd like to summarise by … .*

☐ *That brings us to the end of the final section. Now, if I can just summarise the main points again.*

☐ *That concludes my presentation. Now, if I can just summarise the main points.*

☐ *That's an overview of … . Now, just to summarise, let's quickly look at the main points again.*

Finishing and thanking

☐ *Thank you for your attention.*

☐ *That brings the presentation to an end.*

☐ *That brings us to the end of my presentation.*

☐ *Finally, I'd like to finish by thanking you (all) for your attention.*

☐ *Finally, I'd like to end by thanking you (all) for coming today.*

☐ *I'd like to thank you (all) for your attention and interest.*

Inviting questions

☐ *If anyone has any questions, I'll be pleased to answer them.*

☐ *If anyone has any questions, I'll do my best to answer them.*

☐ *If anyone has any questions, please feel free to ask them now.*

☐ *If anyone has any questions, please feel free to ask them and I'll do my best to answer.*

Programming Languages

Lexical and Grammar Exercises

1. Read the following words. Translate the sentences into Russian. Learn the words by heart.

1) low level language [ləu 'lev(ə)l 'læŋgwɪʤ] - *язык низкого уровня*

Low-level languages are closer to the hardware than high-level programming languages which are closer to human languages.

2) machine language [mə'ʃiːn 'læŋgwɪʤ] - *машинный язык*

Machine code or machine language is a set of instructions executed directly by a computer's central processing unit. To make it easier to write programs in machine language, most programmers use a special program called an assembler.

3) assembly language [ə'semblɪ 'læŋgwɪʤ] - *язык ассемблера*

Each assembly language is specific to a particular computer architecture. Assembly language is 14ed into machine code by a utility program referred to as an assembler.

4) high level language [haɪ 'lev(ə)l 'læŋgwɪʤ] - *язык высокого уровня*

There are a large number of high-level languages; BASIC, COBOL, FORTRAN, and C are examples. The first high-level language for business data processing was called FLOW-MATIC.

5) mathematical notation [ˌmæθ(ə)'mætɪk(ə)l nəu'teɪʃ(ə)n] - *1) математическое обозначение 2) система математических обозначений*

Mathematical notation is a system of symbolic representations of mathematical objects and ideas. High-level languages use easily remembered commands, such as PRINT, OPEN, GOTO, and INCLUDE, and mathematical notation to represent machine-language instructions.

6) procedural language [prə'siːʤ(ə)r(ə)l 'læŋgwɪʤ] - *процедурный (императивный) язык*

A procedural language relies on well-organized procedures, functions or sub-routines in a program’s architecture by specifying all the steps that the computer must take to reach a desired output.

7) intercept [ˌɪntə'sept] - *1) служить помехой, препятствием; 2) перехватить*

Entered from the keyboard or from a program, machine-language commands are intercepted by a separate program—called an interpreter or compiler.

8) portable ['pɔːtəbl] - *переносимый*

A portable application is executable on multiple computers from removable storage without installation, and without writing settings or data onto a computer's non-removable storage.

9) fundamentals [ˌfʌndə'ment(ə)l] - *основы, основные положения*

The course of Programming Fundamentals provides the core knowledge and basic programming skills to begin programming in any language.

Syn. **basics**.

10) embedded system [ɪm'bedɪd], [em-] ['sɪstəm] - *встроенная [встраиваемая] система*

An embedded system is a combination of hardware and software that performs a specific function within a larger system.

11) subroutine [sʌbruː'tiːn]- *подпрограмма*

A subroutine or a procedure is a section of a computer program that is stored only once but can be used when required at several different points in the program, thus saving space.

2. Give English equivalents for the words in brackets.

1. (Язык ассемблера) _____ may also be called symbolic machine code.
2. (Процедурный язык) _____ is one of the most common types of programming languages in use, with notable languages such as C/C++, Java, ColdFusion and PASCAL.

3. If you (перехватываете) _____ someone or something that is travelling from one place to another, you stop them before they get to their destination.

4. Once a (подпрограмма) _____ has been written, tested and proved, it can be incorporated in any program as required.

5. Industrial machines, agricultural and industry devices, automobiles, medical equipment, cameras, household appliances, airplanes, vending machines and toys as well as mobile devices are all possible locations for an (встроенной системы) _____.

3. Replace by one word.

1. A computer programming language that resembles natural language or mathematical notation. _____

2. The system of communication, either spoken or written, consisting of the use of words in a structured way. _____

3. Able to be transferred from one machine or system to another. _____

4. The foundational knowledge a specialist needs. _____

5. A set of instructions that performs a specific task for a main program. _____

4. Fill in the blanks with the word from the active vocabulary.

1. A _____ application is software that can be used from portable storage devices.

2. Most common programming languages being used in _____ systems are “C” and “Assembly Languages”.

3. Several _____ may be used in one program.

4. A _____ is a writing system used for recording concepts in mathematics.

5. _____ languages are simple, but considered difficult to use, due to numerous technical details that the programmer must remember.

5. Match the pairs of the words with similar meaning.

1) instruction	a) effective
2) to develop	b) basic
3) efficient	c) command
4) fundamental	d) version
5) variant	e) to design

6. Match the pairs of the words with opposite meaning.

1) similar	a) universal
2) difficult	b) different
3) fast	c) to complicate
4) to simplify	d) slow
5) specific	e) easy

7. Study the following table.

	Present Simple	Past Simple	Future Simple
	I **V**		

+	He,she,it **Vs / V(es)** We,you,they **V**	**Ved / V_2**	**will V/ 'll V**
-	I **do not V /** don't V He,she,it **does not V /** doesn't V We,you,they **do not V** / don't V	**did not V/didn't V**	**will not V/won't V**
?	**Do** I, we, you, they **V**? **Does** he,she,it **V**?	**Did** I, he, she, it, we, you, they **V**?	**Will** I, he, she, it, we, you, they **V**?
	usually *обычно* always *всегда* as a rule *как правило* often *часто* sometimes *иногда* seldom *редко* every day *каждый день* from time to time *время от времени*	yestreday *вчера* ago *тому назад* the day before yesterday *позавчера* last week *на прошлой неделе* last month *в прошлом месяце* last year *в прошлом году*	tomorrow *завтра* in a week *через неделю* the day after tomorrow *послезавтра* next week *на следующей неделе* next month *в следующем месяце* next year *в следующем году*
USE			
	- for permanent states, repeated actions and daily routines; - for general truths and laws of nature; - for timetables (trains, planes, etc.) and programmes; - for sport commentaries, reviews and narrations; - to give instructions and directions (instead of the imperative).	- for an action which happened at a definite time in the past; - for an actions which happened immediately one after the other in the past; - for past habits or states which are now finished In such cases we can also use the expression **used to**; - to talk about the lives of people who are no longer alive.	- in predictions about the future usually with verbs: think, believe, expect, etc; with expressions: be sure, be afraid, etc.; with adverbs: certainly, perhaps, probably, etc. - for on-the-spot decisions; - for actions, events, situations, which will definitely happen in the future and which we cannot control; - for promises, threats, warnings, requests, hopes.

8. Put the verbs in the Past Simple Tense. Mind the reading of** -ed **ending:

to stop, to work, to use, to start, to complete, to believe, to decide, to produce, to invent, to pass, to construct, to design, to perform, to process, to finish, to record.

9. Give the forms of the Past Simple Tense for the following irregular verbs:

to be, to begin, to build, to come, to do, to find, to get, to give, to go, to have, to hold, to keep, to know, to learn, to make, to meet, to read, to say, to see, to speak, to take, to think, to understand, to write**,** to draw, to spend.

10. Open the brackets and put the verbs into the correct affirmative form.

1). Computer-assissted instruction (to help) _____ us to study at our own pace.
2). At the end of the 1930s computing engineering (to begin) _____ its new era.
3). In future computers (to interpret) _____ images analysing colours and texture patterns.
4). The oldest form of mechanical calculating device (to be) _____ the abacus.
5). Programmers (to use) _____ the language known as C to write systems software.

6). Due to minituarization the development of the fourth generation computers (to become) _____ possible.

7). Microsoft's roots (to go back) _____ as far as 1975, when the first commercially available personal computer (to appear) _____ on the cover of *Popular Electronics* magazine.

8). I (to know) _____ the results in a week.

9). Sun Microsystems (to create) _____ Java in the mid-1990.

10). When he (to come) _____ to the office, he (to sit) _____ at his table and (to start) _____ working.

11). The early 1980s (to see) _____ both IBM's and Microsoft's fortunes soar. Microsoft (to dominate) _____ the software market, just as IBM (to beat) _____ the personal computer market.

12). Computer equipment (to be) _____ different in many years.

13). Every time she (to get) _____ to the office, she always (to check) _____ her e-mail first.

14). Yesterday I (to go) _____ to the laboratory to see the experiment which (to take) _____ place there.

15). The Internet (to keep) _____ us informed about the latest news and also (to provide) _____ entertainment at home.

16). Each device (to perform) _____ a precisely specified task.

17). Every day millions of people (to try) _____ to find information on the Internet.

18). He (to know) _____ the password and could easily get into the system.

19). There isn't enough memory in your computer. It _____ (crash) soon.

11. Put the verbs into the negative form. Express disagreement using *I am afraid you are mistaken* ***or*** *That's impossible.*

1). We perform addition before multiplication.

2). He graduated form the University two years ago.

3). We will study such programming languages as PASCAL and C at the next seminar.

4). This company produces high-speed computers.

5). At the lecture the professor spoke about the invention of the first electronic computer.

6). A slide-rule presents one of the quickest ways of calculation.

7). In 1995 Dr. Neuman worked out the concept of the stored program. (1945)

8). The academic year in our country begins in September.

9). We'll take four exams next term.

10). They hold conferences on information science every year.

11). The first computer operated at high speed.

12). I'll count the results with the help of a calculator.

13). Low-level languages are less efficient but are easier to use because they resemble spoken words.

14). A modem changes data into signals.

15). The Internet started in 1969.

12. Ask general questions to the following sentences. Express disbelief using the word *really*.

1). Computers help much in training engineers.

2). They studied five programming languages.
3). In future machines will solve many problems which today are in competence of man.
4). The CPU controls the actual calculations inside the computer.
5). Mathematical operations include arithmetic and algebraic operations.
6). B.Pascal invented the first mechanical adding machine at the age of 19.
7). The fifth generation systems will use many innovation technologies.
8). Niklaus Wirth created Pascal in the late 1960s.
9). Scientists call Norbert Wiener the father of cybernetics.
10). During four years in Berlin S.Kovalevskaya wrote three dissertations.
11). A large computer uses several types of microprocessors.
12). John Kemeny and Thomas Kurtz developed BASIC in 1965.
13). The third generation of computers began in 1964.
14). The computer does arithmetic problems faster than any person.
15). Boole reduced logic to two-valued binary notation.

13. Answer the following questions.

1). When did you finish school?
2). What University do you study at?
3). When does the academic year begin?
4). What subjects do you study?
5). What subjects will you study next term?
6). How long does the course of studies at your department last?
7). How many specialities do the departments of your University train students in?
8). Who in your group studied abroad?

14. Change the following statements to questions beginning with the question-words given in brackets.

1). A compiler translates the commands into machine language. (What … into?)
2). High-level languages use such commands such command as PRINT, OPEN, etc. (What commands ...?)
3). A team led by John Backus began developing FORTRAN in the 1950s. (When …?)
4). Nicklaus Wirth created the language which he named after 17th-century mathematician Blaise Pascal. (Who ...after?)
5). FORTRAN became the first comprehensive high-level programming language. (What language ...?)
6). PASCAL still influences today's programming languages. (What languages …?)
7). Ada Byron worked with Charles babbage in the mid-1800s. (Who …?)
8). Dennis Ritchie at Bell Laboratories designed C in the early 1970s.(When and where …?)
9). Programs in LISP manipulate symbolic data organized in list structures. (What data …?)
10). Companies insist on developing a universal language to make portable programs which will run on different computers. (What computers …?)
11). I will send you the e-mail address by sms in a minute. (When ...?)
12). He'll print out two copies of the document for you. (How many copies …?))

15. Put the verbs into the correct tense (present or future).

Conditional / Time Clauses

If / When / While / As soon as / Till (until) / Before / After ... **Simple Present** ..., ... **Simple Future** …...
Simple Future ... *if / when / while / as soon as / till (until) / before / after* ... **Simple Present** …

Objective Clauses

... Simple Present ... *if / when* ... **Simple Future**…

1. When he (return) I'll give him the key.
2. I'll stay here till the clock (strike) seven.
3. I don't know if I (be) there.
4. If I (find) the book I (give) it to you.
5. Can you tell me when Mr. Ellis (be) here next?
6. He doesn't know when he (find) a job.
7. I'll apologize if it (make) you feel better.
8. The lift will not start until you (press) the button.
9. When the professor (arrive) the audience will stand up.
10. Does he know when he (arrive) in England?
11. If it (rain) we'll stay at home.

16. Make these sentences by putting the verbs into the correct tense.

1. If I (get) there first, I (keep) a seat for you.
2. As soon as she (learn) to quickly type on a keyboard I (give) her a job.
3. She (phone) us if she (have) any problem.
4. I (not/buy) this software package till the price (come) down.
5. She (be) delighted when she (hear) this.
6. What you (do) if you (not/find) your keys?
7. I (not/wait) for you if you (be) late.
8. She (not/be) happy if she (not/ get) that new job.

17. Translate into English.

1). Мы встречаемся дважды в неделю и обсуждаем наши проблемы.
2). Я приду к вам, как только освобожусь.
3). Он рассказал тебе о своей поездке в Японию?
4). Не знаю, узнаю ли я ее, когда встречу.
5). Не забудьте выключить свет и закрыть окна перед тем, как уйдете.
6). Он не закончил работу, так как не было надежного электрического оборудования.
7). На каком этаже вы работаете?
8). Мы не применяем этот метод вычисления.
9). Мы отнесли принтер в ремонтную мастерскую.
10). Что вы знаете о емкости запоминающего устройства этого компьютера?
11). Эта книга не произвела на меня впечатления.
12). Когда я получу зарплату, я куплю новый смартфон.
13). Объектно-ориентированное программирование стало популярным в 1990-х.
14). Не переходи улицу, пока не увидишь зеленый свет.
15). Это устройство привлекло много внимания в прошлом году.
16). Когда прибывает поезд на Минск?
17). Я никуда не ходил прошлой ночью, я слишком устал.
18). Несколько сотрудников покинули компанию полчаса назад.

19). Когда я купил компьютер, с ним в комплекте шла антивирусная программа.
20). Я обсужу несколько вопросов с системным администратором, как только его увижу.

18. Look through the text and name types of programming languages mentioned in the text. Read the text attentively for the details.

Make sure you read the following words correctly:

Pascal [ˈpæskl]
COBOL [ˈkəʊbɒl]
ALGOL [ˈælgɔːl]
BASIC ['beɪsɪk]
Java ['ʤɑːvə]
Visual Basic ['vɪʒuəl], [-zjuə-]
Ada ['eɪdə]
GUI ['guːiː]
Zürich ['zʊərɪk]
Dartmouth ['dɑːtməθ]
Switzerland ['swɪts(ə)lənd]
command [kə'mɑːnd]
Massachusetts [ˌmæsə'ʧuːsɪts]

Programming Languages

There are two general types of languages—low-level and high-level. Low-level languages are similar to a computer's internal binary language, or machine language. They are difficult for humans to use and cannot be used interchangeably on different types of computers, but they produce the fastest programs. Since people prefer to use words, a new type of the language based on the machine code was developed. It uses words instead of decimal numbers to represent computer operations, e.g., 01 means ADD, 02 – SUBTRACT. However, “subtract” is a long word, so a shorthand form was used, namely, SUB. This *mnemonic language*[1] is known as assembly language.

High-level languages are less efficient but are easier to use because they resemble spoken or mathematical languages. High-level languages use such commands as PRINT, OPEN, GOTO, and INCLUDE, and mathematical notation to represent frequently used groups of machine-language instructions. These commands are intercepted by a program called an interpreter or compiler that translates the commands into machine language.

The first high-level language for business data processing was FLOW-MATIC. It was devised in the early 1950s by Grace Hopper, a US Navy computer programmer. At that time, computers were also becoming an important scientific tool. A team led by John Backus within the IBM Corporation began developing a language that would simplify the programming of complicated mathematical formulas. Completed in 1957, FORTRAN became the first comprehensive high-level programming language. Newer versions of the language are still widely used in engineering and scientific applications.

FORTRAN manipulated numbers and equations efficiently, but it was not suitable for commercial and business-related tasks, such as creating, moving, and processing data files. To adress these needs COBOL was developed in the early 1960s.

John Kemeny and Thomas Kurtz, professors at Dartmouth College, developed a simplified version of FORTRAN, called BASIC, in 1965. BASIC was simple to learn and easy to use, and it became an important academic tool for teaching programming fundamentals to nonprofessional computer users. The wide use of microcomputers in the late 1970s transformed BASIC into a universal programming language. In the early 1990s the Microsoft Corporation enhanced BASIC with a GUI and developed Visual Basic for creating PC applications.

In 1968 Niklaus Wirth, a professor in Zürich, Switzerland, created Pascal, which he named after 17th-century French philosopher and mathematician Blaise Pascal. The language was taught in universities during the 1970s and 1980s, and it still influences today's programming languages. Pascal was based on ALGOL, a language that was popular in Europe during the 1960s.

Programs written in LISP manipulate symbolic (as opposed to numeric) data organized in list structures. Developed in the early 1960s at the MIT under the leadership of Professor John McCarthy, LISP is used mostly for artificial intelligence (AI) programming. Artificial intelligence programs attempt to make computers more useful by using the principles of human intelligence in their programming.

Programmers use the language known as C to write systems software, but many professional and commercial-quality applications are also written in C. Dennis Ritchie at Bell Laboratories originally designed C for the UNIX OS in the early 1970s.

In 1979 the language Ada, designed at CII Honeywell Bull by an international team led by Jean Ichbiah, was chosen by the United States Department of Defense as its standardized language. It was named Ada, after Augusta Ada Byron, who worked with Charles Babbage in the mid-1800s and is credited with being the world's first programmer. The language Ada has been used to program embedded systems, which are integral parts of larger systems that control machinery, weapons, or factories.

Languages such as FORTRAN, Ada, and C are called procedural languages because programmers break their programs into subprograms or subroutines (procedures) to handle different parts of the programming problem. Such programs operate by “calling” the procedures one after another to solve the entire problem.

During the 1990s object-oriented programming (OOP) became popular. This style of programming allows programmers to construct their programs out of *reusable “objects.”*[2] A software object can model a physical object in the real world. It consists of data that represents the object's state and code that defines the object's behaviour. The first language for object-oriented programming was C++, designed by Bjarne Stroustrup of Bell Laboratories in the mid-1980s. James Gosling of Sun Microsystems Corporation created a simplified version of C++ called Java in the mid-1990s. Java has become popular for writing applications for the Internet.

Hundreds of programming languages or language variants exist today. Most of them were developed for writing specific types of applications. However, many companies insist on using the most common languages so they can take advantage of programs written elsewhere and ensure that their programs are portable, which means that they will run on different computers.

NOTES

1. mnemonic [nɪ'mɔnɪk] language – мнемонический (символический) язык
2. reusable object – многократно (повторно) используемый объект

19. Express your agreement or disagreement with the following statements.

1). The first high-level language was developed for scientific purposes.
2). Assembly language uses a mnemonic to represent each low-level machine instruction.
3). Low-level languages use words instead of decimal numbers.
4). FORTRAN is a language used in objec-oriented programming.
5). AI programming languages were developed in the early 1960s.
6). BASIC stands for “Beginner's All-purpose Symbolic Instruction Code.”

20. Complete the following sentences according to the text.

1). Low level languages include … .
2). High level languages can be classified into … .
3). … is considered to be a universal high-level programming language.
4). Object-oriented programming languages include … .

5). … is used for writing applications for the Internet.
6). … was developed for AI programming.

21. Match the names of programming languages and their developers.

1). FLOW-MATIC	a). an international team led by Jean Ichbiah
2). FORTRAN	b). Bjarne Stroustrup
3). Pascal	c). Dennis Ritchie
4). BASIC	d). James Gosling
5). LISP	e). Grace Hopper
6). C++	f). a team led by John Backus
7). C	g). Niklaus Wirth
8). Visual Basic	h). John McCarthy
9). Ada	i). John Kemeny and Thomas Kurtz
10). Java	j). the Microsoft Corporation

22. Ask your groupmates and let them answer about:

1) general types of programming languages;
2) what mnemonic language is;
3) what field the first high-level language was devised in;
4) what the difference between FORTRAN and BASIC is;
5) what they know about PASCAL;
6) programs written in LISP;
7) fields where C is applied;
8) fields where the language Ada is used;
9) if they know the first language for OOP;
10). fields where java is applied.

23. Discuss in pairs and explain the difference between

a) machine code and assembly language;
b) low-level and high-level languages;
c) procedural, logical and object-oriented programming languages.

24. Develop the idea about the necessity to develop universal programming languages for creating programs which can be run on different computers.

Unit 2

Grammar: Continuous Tenses (Active)
Oral Topic: The Internet and the World Wide Web

Lexical and Grammar Exercises

1. Read the following words. Translate the sentences into Russian. Learn the words by heart.

13. **research** [rɪ'sɜːʧ] – (научное) исследование; изучение; изыскание; исследовательская работа

Research on computer networks at Yale concentrates on designing highly efficient Internet backbone networks. *Philip Stevens is director of a UK-based research organization working on trade, health and intellectual property issues.*

14. **to permit** [pə'mɪt] *позволять, разрешать, давать разрешение*

Syn. ***to let, to allow***

The security system will not permit you to enter without the correct password. Machine-readable passports will permit precise identity checking.

15. **hypertext** [ˈhaɪpətekst] – *гипертекст*

Hypertext allows a user to move from one Web page to another.

HTML (HyperText Markup Language) – язык разметки гипертекста

HTML stands for HyperText Markup Language and is the code used to build websites. HTML is the code a web browser needs to show the text, graphics and hyperlinking systems.

16. **search engine** [ˈsɜːtʃ ˌendʒɪn] – *поисковая система*

Google users can ask the search engine to remove results about them that are inaccurate or no longer relevant. Google's search engine evolves, and so does the interaction between people and the engine.

17. **to view** [vjuː] – *обозревать, оглядывать, просматривать*

Syn. ***to observe, to examine***

The 4-inch screen is big enough to view movies and web pages clearly. My Search Hi**story** allows users to view all the web pages they have visited and Google searches they have made over time.

18. **provider** /prəˈvaɪdə/ – *поставщик, организация, ответственная за поставку*

The company is now one of the regions main Internet service providers. Founded in 2003, KORE is the world's largest managed network services provider specializing in the Internet of Things (IoT) and Machine to Machine (M2M) communications.

Internet Service Provider – поставщик удаленных подключений к интернету

19. applet [ˈæplət] - *прикладная минипрограмма*

Java [ˈdʒɑːvə] **applet** – *Java-приложение, Java-апплет*

Web page designers can make their pages more interactive and dynamic by including small programs written in Java called Java applets. The applet is usually embedded in an HTML page on a Web site and can be executed from within a browser.

20. **to render** [ˈrendə] – *интерпретировать, представлять, изображать*

When Web browsers download the pages, they know how to render the HTML (convert the code into the text and graphics for display on the screen) and run the Java applets. A site you build in Moonfruit is designed to render in Flash, HTML, or mobile HTML5, depending on how the user is accessing it.

21. **extraction** [ɪk'strækʃ(ə)n] – *извлечение; выбор, выборка*

On the basis of technology, the global market is segmented into machine translation, information extraction, and text and voice processing. PARIS & NEW YORK is a world leading developer of artificial intelligence and machine-learning based text recognition, information extraction and intelligent document classification toolkits.

2. Give English equivalents for the words in brackets.

15. The (исследование) found that the maths performance of the students who accessed social networks on a daily basis was 20 points lower than those who never went online to chat.
16. Established in 1999, Iristel is a leading global (поставщик) of Voice over Internet Protocol (VoIP) services with its headquarters in Toronto, Canada.
17. The tablet (позволяет) users to write with their fingers and with a digital stylus.
18. The World Wide Web was created by combining two previous innovations: (гипертекст) and the Internet.
19. (Язык разметки гипертекста)5, the fifth version of this language, adds a series of new capabilities for web pages that advocates say will radically change the way we use the web.
20. According to the agency the technologies developed in the program will also provide the mechanisms for content discovery, information (извлечение**)**, information retrieval, user collaboration.

3. Replace by one word.

15. A computer program that finds information on the Internet by looking for words that you have typed in.
16. A computer program that is part of a larger program, and which performs a particular job, such as finding documents on the Internet.
17. A computer language used for producing pages of writing and pictures that can be put on the Internet.
18. A company that provides the technical services that allow people to use the Internet.
19. Serious study of a subject, in order to discover new facts or test new ideas.
20. A special type of database system in which objects (text, pictures, music, programs, and so on) can be creatively linked to each other.
21. To allow something to happen, especially by an official decision, rule, or law.

4. Fill in the blanks with the word from the active vocabulary.

1. _____are programs that search documents for specified keywords and returns a list of matching documents.
2. A _____ is a small Internet-based program written in Java, a programming language for the Web, which can be downloaded by any computer.
3. Computers are used when the time saved off sets their cost, which is one of the many reasons they are used so much in business, industry, and _____**.**
4. While working for the European Particle Physics Laboratory, in the 1980s, Berners-Lee saw an opportunity to join _____with the Internet.
5. This technology will _____a cloud storage provider to scan for known pirated files while keeping your unique personal data completely private.
6. Created by Sir Tim in 1991, _____ tells a web browser everything it needs to know: what a web page does, where it goes and what it looks like.

5. Study the following table.

		Present Continuous	**Past Continuous**	**Future Continuous**

+	I he,she,it we,you,they	**am Ving** **is Ving** **are Ving**	**was Ving** **was Ving** **were Ving**	**will be Ving**
-	I he,she,it we,you,they	**am not Ving/'m not Ving** **is not Ving/isn't Ving** **are not Ving/aren't Ving**	**was not Ving/wasn't Ving** **was not Ving/wasn't Ving** **were not Ving/weren't Ving**	**will not Ving/** **won't be Ving**
?	I he,she,it we,you,they	**am** … **Ving…?** **is** … **Ving…?** **are** … **Ving…?**	**was** … **Ving…?** **was** … **Ving…?** **were** … **Ving…?**	**will** … **be Ving**?
USE				
		-for actions taking place now, at the moment of speaking; -for temporary actions, that are going on around now, but not at the actual moment of speaking; -with adverbs such as: always , constantly, continually, etc. for actions which happen very often, usually to express irritation, annoyance, anger; -for actions that we have already arranged in the near future, especially if the time and place have been already decided; -for changing and developing situations.	-for an action which was in progress at a stated time in the past; -for an action which was in progress when another action interrupted it; -for two or more simultaneous past actions; -in the introduction to a story before the main events are described.	-for an action, which will be in progress at a stated future time -for an action which will definitely happen in the future as the result of a routine or arrangement) -when we ask politely about someone's plans for the near future
		now **right now** **at the moment** **these days** **nowadays** **still**	**at 5 o'clock -** **from 5 to 7** **at that time yesterday** **while** **when** **as** **all day/night, /morning, etc**	**this time tomorrow,** **at 5 tomorrow**
Stative verbs: appear, resemble, seem, consist of, contain, have, come from, concern, cost, fit, suit, be, exist, forget, know, realize, understand, dislike, hate, like, love, prefer, need, want, wish, believe, doubt, imagine, think, suppose, belong to, have, own, owe, possess, feel, hear, notice, see, smell, sound, taste.				

7. Open the brackets and put the verbs into the correct affirmative form.

1. This company currently (work) on the LSI design of a single chip which will integrate a genetic algorithm, a specialized memory system and a dynamic Boolean function.
2. I (write) an Internet page about my area at 4.30 yesterday.
3. He always (play) computer games!
4. Be careful! You (send) your e-mail to the wrong address!
5. While I (visit) that website, my friend (learn) how to use the Internet.
6. Look! He (try) to download their UFO files!
7. When I (finish) my project on the history of the Internet, my computer crashed.
8. They (develop) new multifunctional device now.

9. This time tomorrow the scientist (test) this application.
10. The engineers from this university (work) at another type of a mobile robot this year.
11. The University informs us that the team currently (work) on the final robot, which will have advanced features.
12. We (work) at the seminar this time tomorrow.
13. The report highlighted that 53% of professionals (use) traditional firewalls and 47% (use) a cloud service provider.
14. The manager said they (work) to adapt the software.
15. Now our five finalists (develop) the most promising software solutions to enable children to teach themselves basic reading.
16. Now we (reduce) the cost to communicate and (provide) businesses with greater Internet access.
17. Maybe someday, we (browse) the Internet on the palms of our hands.
18. While he (work) at CERN he started working on these hypertext protocols to facilitate sharing and upgrading of information.
19. It gives more direct and intuitive control when you (use) things like the browser or entering text.
20. As more and more services are hosted in the cloud, we (use) HTML and JavaScript more than ever.

8. Open the brackets and put the verbs into the correct negative form. Express disagreement using *I am afraid you are mistaken* ***or*** *That's impossible*

2) The kids (not, play) Minecraft on a computer right now.
3) A student and her friend (not, study) in the computer labs when the incident took place.
4) This summer CATC (not, organize) a computer camp to develop students' technology skills.
5) Thomson (not, try) to highlight the link between over-use of social networks and issues such as depression this year.
6) Ann (not, try) to share a link to the report, when she received a wide variety of error messages and warnings.
7) The National Physical Laboratory now (not, conduct) experiments aimed to recognize human speech.
8) In some years IBM publication department (not, fill) 100% translation demands via machines.
9) A special team experienced in the field of new technologies (not, consult) the Lab at that time.
10) Before that computer broke down, it *(not, transmit)* danger signals.
11) Robert (not, *play)* a game on *the computer*, when she came back there.
12) Mr Shackleton (not, run) his own Internet cafe in Warsaw at the time of the attack.
13) At that time the company (not, deliver) reliably high-speed Internet.
14) Your phone (not, fight) against all the others trying to send and receive data with next-generation mobile networks.
15) Things are lining up to make 5G a reality in 2019 in your smartphones.

9. ***Ask general questions to the following sentences. Express disbelief using the word*** *really*.

14 I was working on my essay for ten minutes, when the screen went blank.

15 Netflix is now paying two major Internet providers for a more direct path into the homes of all those people watching movies and TV shows on its popular video streaming service.

16 He was replacing the motherboard, when it happened.

17 We are running the test program.

18 In a few years, small intelligent robots will be dealing with all the household chores.

19 Police officers were monitoring social media, internet forums and BlackBerry messaging networks that day.

20 Now most phone systems used by companies in the United States are operating on the Internet.

21 They were e-mailing each other at six yesterday.

22 The supermarkets in the US are testing a new robot checkout system.

23 These days, information technologies are advancing stunningly fast.

10. ***Change the following sentences to questions using the words given in brackets.***

1. Nowadays computer development is rapidly progressing at both the high and the low ends of the computing spectrum. (How … ?)
2. I was searching the Web for sites on digital cameras from 5 to 7 yesterday. (When … ?)
3. Researchers are currently developing microchips called digital signal processors (DSPs). (What microchips … ?)
4. The floppy drive is now slowly disappearing. (What drive … ?)
5. I will be updating my site at noon tomorrow. (What …. tomorrow?)
6. In the early 80s, different networks were adopting TCP/IP as their communications standard.
7. Now enterprise network managers are focusing on the content and services they are delivering over the Internet. (Who ….now?)
8. While I was writing an email, the computer suddenly went off. (What … went off?)
9. Most of the software writing then was going on in the universities, military, and businesses that were big enough to afford the then room-filling computers, called mainframes. (Where …?)
10. Now Apple is working with virtual reality companies, such as Unity Technologies and Epic Games, bringing their VR tools to the Mac. (What virtual reality companies … ?)

11. ***Put the verbs in the brackets into the correct form (Simple or Continuous):***

13. He (play) computer games every day. What game he (play) now? He always (play) computer games!
14. Jobs and Wozniak (found) Apple Computer Inc on April,1 1976.
15. If Google completely reworks its browser to meet the entry requirements of the Windows Store, users (be) unable to use the browser as the default on any Windows 10 machine.
16. They (release) a new version of software next month.
17. He came in and saw Lizzy who (sit) in front of her computer drawing a 3D model.

18. What computer languages you normally (use)? What computer languages you (use) in your current project?

19. We (buy) a new computer two days ago. Now the job will be done much more quickly.

20. What you (do) yesterday? – I (browse) e-commerce sites.

21. I didn't hear what he (say). I (run) the virus scan.

22. We are a small company specializing in personal service: we (install) software and hardware. We (install) a new forms program on the server and it will be online soon! Please keep watching!

23. I tell him he should not eat while he (type).

24. This company (work) to develop evolvable software this time next week.

25. On November 10, 1983, at the Plaza Hotel in New York City, Microsoft Corporation formally (announce) Microsoft Windows.

26. I have not personally experienced a virus attack, but I always (take) precautions against infecting my computer.

27. Last month Google's Chrome web browser (add) preliminary support for voice commands, opening the door to a voice-driven future.

28. Google (get) ready to release the next generation of its Pixel phone next month.

29. Soon, some of the cleverest business intelligence tools (be) a regular feature in most software stacks.

30. Today Google (introduce) a new logo.

31. You (remember) what device (look after) cache coherency?

32. If you choose to send usage statistics and crash reports to Google, the browser (send) us this information along with a unique application number as well.

12. ***Read the text attentively for details.***

The Internet and the World Wide Web

The Internet was originally formed in 1970 as a military network called ARPANET (Advanced Research Projects Agency Network) as part of the United States Department of Defense. The network opened to nonmilitary users in the 1970s, when universities and companies doing defense-related research were given access, and flourished in the late 1980s as most universities and many businesses around the world came online. In 1993, when commercial Internet service providers were first permitted to sell Internet connections to individuals, usage of the network grew tremendously.

British physicist Tim Berners-Lee invented the World Wide Web in 1992 as a way to organize and access information on the Internet. Its introduction caused the popularity of the Internet to explode nearly overnight. Instead of being able to download only simple linear text, with the introduction of the World Wide Web users could download Web pages containing text, graphics, animation, video, and sound. A program called a Web browser runs on users' PCs and workstations and allows them to view and interact with these pages. Hypertext allows a user to move from one Web page to another by using a mouse to click on special hypertext links. Users "surf the Web" when they jump from one page to another in search of information. Special programs called search engines help people find information on the Web.

Many commercial companies, organizations and educational institutions have Web sites, or sets of Web pages, that their customers can view. Web sites are maintained on computers called Web servers. Most companies and many organizations have their own Web servers. These servers often have databases that store the content displayed on their sites' pages. Individuals

with Web sites can use the Web servers of their Internet service providers.

Web pages are programmed using a language called HTML (HyperText Markup Language). Web page designers can make their pages more interactive and dynamic by including small programs written in Java called applets. When Web browsers download the pages, they know how to render the HTML (convert the code into the text and graphics for display on the screen) and run the Java applets. Web servers are commonly programmed in C, Java, or a language called Perl (practical extraction and reporting language), which was developed in the mid-1980s by Larry Wall, a computer system administrator.

13. ***Express your agreement or disagreement with the following statements.***

17. The Internet was originally formed in 1965 as a civil network called ARPANET.
18. In the 1970s universities and companies doing defense-related research were given access to the Internet.
19. The permission to sell Internet connections to individuals caused the tremendous growth in network usage in 1993.
20. Bill Gates invented the World Wide Web in 1992 as a way to organize and access information on the Internet.
21. With the introduction of the World Wide Web users could download Web pages containing text, graphics, animation, video, and sound.
22. A program called a Web interface allows users to view and interact with these pages.
23. Hypertext allows a user to move from one Web page to another by using a mouse to click on special hypertext links.
24. A Web site is a set of Web pages.
25. Computers called workstations maintain Web sites.
26. Servers often have databases that store the content displayed on their sites' pages.
27. Web pages are programmed using a language called Perl.
28. Small programs written in Java called applets help designers make Web pages more interactive and dynamic.

14. *Complete the following sentences according to the text.*

13. In 1970 the Internet ….
14. In the 1970s universities and companies doing defense-related research ….
15. In the late 1980s most universities and many businesses ….
16. In 1992 British physicist Tim Berners-Lee ….
17. In 1993 commercial Internet service providers ….
18. The World Wide Web allows users …..
19. A Web browser enables users ….
20. Hypertext lets users ….
21. HyperText Markup Language is used for ….
22. Servers have databases that can store ….
23. The languages commonly used for programming Web servers are ….

15. ***Ask your groupmates:***

1) when the Internet was originally formed;
2) when the network was opened to nonmilitary users;
3) when usage of the Internet grew tremendously;

4) what the World Wide Web is;
5) who invented the World Wide Web;
6) what functions a Web browser can perform;
7) what hypertext deals with;
8) if many commercial companies, organizations and educational institutions have Web sites;
9) if individuals with Web sites can use their Internet service providers servers;
10) what languages are used for programming Web pages/Web servers.

16. ***Let's discuss:***

1. Do you like surfing the Internet? How does it help you with your daily activities?
2. Which search engines do you prefer to use? Why?
3. What recurring Internet problems do you face?
4. What will the Internet be like in 100 years?

17. ***Dwell upon the following statement.***

Mitchell Kapor said, "Getting information off the Internet is like taking a drink from a fire hydrant.'
Do you agree or disagree with the statement?

Unit 3

Grammar: **Perfect Tenses (Active)**
Oral Topic: **Careers in the Computer Field**

Lexical and Grammar Exercises

1. Read the following words. Translate the sentences into Russian. Learn the words by heart.

1) systems analyst ['sɪstəmz' æn(ə)lɪst] - *специалист по системному анализу; системотехник*

A *systems analyst* is an information technology (IT) professional who specializes in analyzing, designing and implementing information systems.

2) computer security specialist [kəm'pjuːtə sɪ'kjuərətɪ 'speʃ(ə)lɪst] - *специалист по компьютерной безопасности*

Computer security specialists, or information security analysts, are responsible for protecting company's information assets and making sure only authorized people gain access to confidential information.

3) applications programmer [ˌæplɪ'keɪʃ(ə)nz 'prəugræmə] - *прикладной программист, разработчик прикладного программного обеспечения, разработчик приложений*

The application programmer is responsible for designing and testing program logic, coding programs, program documentation and preparation of programs for computer operations.

4) systems programmer ['sɪstəmz' 'prəugræmə] - *системный программист; специалист, разрабатывающий или обслуживающий системные и/или сетевые программы; специализируется на организации взаимодействия системного и прикладного программного обеспечения*

The system programmer (or system**s** programmer) installs, customizes, and maintains the operating system, and also upgrades products that run on the system.

5) database programmer ['deɪtəbeɪs 'prəugræmə] – *специалист по проектированию баз*

данных

A database programming professional or database programmer is responsible for maintaining a database, which includes preserving data integrity. A database programmer may design, create, and implement a database from scratch.

6) designer of graphical user interfaces [dɪˈzaɪnər ɒvˈgræfɪkəlˈjuːzərˈɪntəˌfeɪsɪz] – *разработчик графических пользовательских интерфейсов*

User Interface (UI) designer focuses on anticipating what users might need to do and ensuring that the interface has elements that are easy to access, understand, and use to facilitate those actions. Designers of graphical user interfaces bring together concepts from interaction design, visual design, and information architecture.

7) systems administrator [sɪstɪmz əd'mɪnɪstreɪtə] - *системный администратор*

There are different types of computer system administrators based on their roles and responsibilities: server administartors, network administrators, database administartors, security systems administrators.

8) computer operator [kəmˈpjuːtər ˈɒpəreɪtə] – *оператор ЭВМ*

C*omputer operators* oversee the running of computer systems, ensuring that the machines and computers are running properly. Computer operators have specialized knowledge of computer systems, networks, mainframes, and hardware.

9) hardware designer [ˈhɑːdweə dɪˈzaɪnə] - *разработчик (аппаратного) оборудования, разработчик аппаратных средств*

Hardware designers are responsible for overall product functionality, they work with hardware, firmware and software and manages all the resources to ensure that the end product works. As compared to hardware designers hardware engineers are in charge of hardware part only, they work with schematics and layout.

10) data processing manager [ˈdeɪtə-ˈprəʊsɛsɪŋˈmænɪʤə] – *руководитель отдела по обработке данных*

A data processing manager is responsible for the storage and organization of information and data in a workplace. The everyday duties of data processing managers include communicating and working closely with members of other departments, coordinating Internet operations, managing data safety, and taking charge of a group of computer programmers or analysts.

11) database administrator [deɪtəˌbeɪs ədˈmɪnɪstreɪtə] – *администратор базы данных*

A database administrator (DBA) directs or performs all activities related to maintaining a successful database environment. A database administrator's responsibilities include designing, implementing, and maintaining the database system.

12) Web-page designer [wɛb-peɪʤ dɪˈzaɪnə] – *вебдизайнер, разработчик Интернет-сайтов [порталов]*

Web-designers create and maintain websites. Web-designers of different areas deal with web graphic design; interface design; authoring, and search engine optimization.

13) chief information officer (CIO) [ʧiːfˌɪnfə'meɪʃ(ə)n 'ɔfɪsə] – *директор по информации (руководитель компании, который отвечает за создание и функционирование системы хранения и использования информации внутри компании)*

Chief information officer is a job title commonly given to the most senior executive in an enterprise responsible for the information technology and computer systems that support enterprise goals.

2. Give English equivalents for the words in brackets.

1. In mainframe environments, there is one (системный программист) _____ for about

10 or more (разработчиков прикладного ПО) _____ , and they generally have higher salaries than (разработчики приложений) _____ .

2. A (разработчик аппаратных средств) _____ is typically involved in designing of PCBs, boards and chips.

3. (Администраторы баз данных) _____ design, write and take care of computer database systems so that the right person can get the information they need at the right time.

4. The job of a (специалиста по безопасности) _____ is to determine the best way to secure the infrastructure, including physical security and cyber security.

5. Pursuing a career as a (менеджер по обработке данных) _____ could result in employment as a business analyst, systems programmer, or information systems manager.

6. (Менеджер отдела управленческих информационных систем) _____ oversees the people, processes and technologies within a company's IT organization to ensure they deliver outcomes that support the goals of the business.

3. Replace by one word.

1. A specialist who uses analysis and design techniques to solve business problems using information technology. _____

2. These workers use specific database computer languages to write and test new database software. _____

3. Their job is to make the websites and mobile applications a pleasure to use. _____

4. A person whose job is to write programs for an organization's computer systems. _____

5. Specialists who use software to store and organize data at services firms, insurance companies, banks, and hospitals. They make sure that data is available to users and is secure from unauthorized access. _____

6. A company executive who is responsible for the management, implementation and usability of information and computer technologies. _____

4. Fill in the blanks with the word from the active vocabulary.

1. A _____ is a person who analyzes a complex process or operation in order to improve its efficiency, especially by applying a computer system.

2. A _____ creates an information-oriented, systematic graphic design which helps people understand complex information and makes visual communication successful.

3. _____ implement and maintain security systems.

4. IT _____ develop, create, and modify general computer applications software or specialised utility programs.

5. _____ keep the interface simple, make page layout purposeful considering the spatial relationships between items on the page, structuring the page based on importance and strategically using colour, light, contrast, texture and fonts.

6. _____ , also known as database developers, write instructions that affect the way in which sets of records stored in a computer system are organized, managed, accessed and updated.

7. The role of the _____ is that of managing a data processing function of the computer itself, and of people responsible for systems analysis and design, programming and operation.

8. _____ are divided into two common specialities: system DBAs who are responsible for the technical aspects of a database such as installing upgrades and patches to fix program bugs,

and application DBAs who support a database that has been designed for a specific application.

5. Match the words with similar meaning.

1) tremendous	a) need
2) growth	b) to perform
3) to accomplish	c) unprotected
4) safety	d) colossal
5) vulnerable	e) company
6) business	f) security
7) require	g) evolution

6. Match the words with opposite meaning.

1) to protect	a) to deteriorate
2) to improve	b) to attack
3) diversified	c) unprotected
4) secure	d) similar

7. Study the following table. Formulate the rule.

	Present Perfect	**Past Perfect**	**Future Perfect**
+	I **have Ved / V_3** He,she,it **has Ved / V_3** We,you,they **have Ved / V_3**	**had Ved / V_3**	**will have Ved / V_3**
-	I **have not Ved / V_3** He,she,it **has not Ved / V_3** We,you,they **have not Ved / V_3**	**had not Ved / V_3**	**will not have Ved / V_3**
?	**Have** I, we, you, they **Ved / V_3**? **Has** he,she,it **Ved / V_3**?	**Had** I, he, she, it, we, you, they **Ved / V_3**?	**Will** I, he, she, it, we, you, they **have Ved / V_3**?
	already уже recently *недавно* lately *в последнее время* just *только что* yet *еще* this week *на этой неделе* since *с, с тех пор как* ever *когда-либо* never *никогда*	before до after *после* by that time *к тому времени* by the end of last year *к концу прошлого года*	by that time tomorrow *к этому времени завтра* by next Friday *до завтрашней пятницы* before *до* when когда
	USE		
	- for an action which started in the past and continues up to the present, especially with state verbs such as *be, have, like, know, etc., in this case, we often use for and since*; - for an action which recently	- for an action which happened before another past action or before a stated time in the past; - for an action which finished in the past and which result was visible in the past.	- for an action which will be finished before a stated future time.

	finished and which result is visible in the present; - for an action which happened at an unstated time in the past. The exact time is not mentioned because it is either unknown or unimportant, the emphasis is placed on the action; - for an action which has happened within a specific time period which is not over at the moment of speaking, we often use words and expressions such as today, this morning / evening / week / month, etc.		

8. a) Open the brackets and use the verbs in brackets in the correct affirmative form. b) Change the sentences to make them negative.

1). The role of a computer operator _____ (change) over the years in respect to the gradual evolution of computer technology.
2). I _____ (compile) the program by tomorrow.
3). Thank you for everything. You _____ (help) me a lot.
4). They _____ (load) the program before we came.
5). Jenny _____ (explain) the matter to the system administrator and I think he understands.
6). Someone _____ (take) my USB flash drive.
7). The engineers reported that they _____ (build) a new mobile robot.
8). She can't get in the lab. She _____ (lose) her keys.
9). Computers _____ (become) more powerful.
10). I _____ (finish) this exercise by the time the bell rings.
11). It _____ (happen) several times already.
12). Don't you think that it's the most dangerous experiment we _____ (make) ever.
13). By next summer I _____ (be) to fifteen conferences.
14). You'll never guess who I _____ just _____ (meet).
15). The team _____ (experience) several setbacks so far.
16). Since 1986 the number of known viruses _____ (grow) to several thousand different viruses.
17) When the first digital computer was developed, the first analog computer already _____ (be) in use for some time.
18). When he asked me where his wireless mouse was, I said that I _____ even _____ (see) and _____ (take) it.
19) You _____ (spend) much efforts before you can run an IT corporation.
20). I came a minute late. Eve already _____ (to design) a site.

9. Complete general questions:

1). … the virus ... and caused further damage? (spread)
2). … you ever ... the operating system? (install)
3). … they ... an attempt to penetrate our computer system? (make)

4). … you ... *abroad before you started working for the company? (be)*

5). … he ... back home by next September? (come)

6). … Bill Gate, co-founder and then-CEO (Chief Executive Officer) of the Microsoft software company, ... *his* book *The Road Ahead* by 1999? (write)

7). … science ... *and productivity ...* in leaps and bounds recently? (advance, grow)

8). … her browser … (to find) the page she wanted by the time she returned?

9). … he … (to pay) for his online time before using the ISP?

10). … she… (to draw) a diagram to illustrate her report?

11). … we … (to discuss) all the projects by the end of the seminar?

10. Ask special questions beginning with the words given in brackets:

1). *We have had three power cuts this week. (How many...?)*

2). I guess, they will *have received your next letter before Christmas. (*Before what holiday ...?)

3). Peter has worked for three different companies since he graduated two years ago. (Where …?)

4). When Linus Torvalds had written a basic kernel by 1991, he released the source code to the Linux kernel on the Internet. (By what time ...?)

5). We will have read all these books according to the list by the exam time. (What …?)

6). We haven't had any complaints so far. (How many …?)

7). When I went to a university groupmates reunion last week, I was very surprised - so many things had changed. (What …?)

8). Next month will have worked for the company for six years. (How long …?)

9). He has made good progress in English since winter. (S*ince when …?)*

10). The student hasn't taken part in our research because of his illness. (Why …?)

11. Translate from Russian into English:

1). Как долго ты не был в сети?

2). Ты уже закончил свой проект?

3). Вчера он купил новую флешку, так как потерял свою старую.

4). Я уже подготовлю всю информацию об этом контракте, если вы придете в 5 часов.

5). Как долго вы знаете друг друга?

6). Поскольку я знал его около 10 лет, я рекомендовал его как хорошего специалиста.

7). 4-часовой поезд на Минск уже отправился.

8). Полагаю, он примет какое-то решение еще до начала собрания.

9). Я вас где-то уже видел. Ваше лицо мне знакомо.

10). Вчера мы получили от него сообщение. Мы долгое время не получали от него никаких известий.

12. Study the following table.

Present Perfect is used when	**Past Simple** is used when
Has the time period finished?	
- time period hasn't finished.	- time period has finished.
Example: I have seen three movies this week. (This week has not finished yet.)	*Example: I saw three movies last week. (Last week has finished.)*
I have seen her this morning. (It is still morning.)	*I saw her in the morning. (It is evening.)*

Is it new information or old?

- giving recent news.	- giving older information.
Example: Martin has crashed his car again. (This is new information.)	*Example: Martin **crashed** his car a month ago.(This is old information.)*

Is it a specific time?

- the time is not specific.	- the time is clear.
Example: I have seen that movie already. (We don't know when.)	*Example: I saw that movie on Thursday. (We know exactly when.)*
Have you ever been to Canada? I have been to Canada twice.	*He went to Canada last summer. (We know exactly when.)*

Is a complete past action connected to the present?

- actions are connected to the present with a stated or unstated time reference	- actions are not connected to the present with a stated or implied time reference
Example: I have seen Queen Elizabeth II. (She is alive – action connected to the present).	*Example: I saw Steve Jobs. (action not connected to the present – Steve Jobs is dead.)*

Has the action finished (sentences with "for" or "since")?

- with *for* and *since* when the actions have not finished yet.	- The **simple past** is used with *for* when the actions have already finished.
Example: I have lived in Victoria for five years.(I still live in Victoria.)	*Example: I **lived** in Victoria for **five years**. (I don't live in Victoria now.)*

13. Put the verbs in brackets into the Past Simple or Present Perfect.

A). 1. They _____ (work) over last weekend to meet deadline.

2. Where you (buy) this encyclopedia? – I _____ (buy) it when I _____ (be) in the U.K.

3. This is the first time he _____ (be) late.

4. Digital technology _____ (change) the media.

5. We _____ (be) friends since we _____ (be) at university together.

6. At last! Where you _____ (be)?

7. You look happy. You _____ (pass) your exams?

8. Stephen Hawking is a world famous scientist. He _____ (not/win) the Nobel Prize yet. He _____ (write) his famous book about time in 1988 and he _____ (sell) already more than 8 million copies.

9. I _____ (be) to London on many occasions.

10. When you _____ (get) your diploma in Computer Science?

11. You ever _____ (be) abroad? – Yes, I _____ (be) there from 1998 to 2000.

12. What lessons you _____ (have) today?

13. Maria Sklodowska-Curie and Pierre Curie _____ (work) together for most of their lives.

14. I always _____ (know) he is a good analyst.

15. He _____ (meet) her at the conference.

16. They _____ (publish) The Times in London since 1788.

17. She _____ (own) the business from 2001 to 2003.

18. She _____ (own) the business since 2001.

19. How many online interviews you _____ (do)?

20. I _____ (find) your file. – Oh, great. Where you _____ (find) it?

B) 1. Bill Gates _____ (earn) millions of dollars since the foundation of Microsoft.
2. John _____ (go). He _____ (leave) last night.
3. I _____ (have) my computer since Christmas.
4. I originally _____ (study) electrical engineering at university and I _____ (graduate) with a first-class degree.
5. I'm writing in connection with the advertisement which _____ (appear) on 21 June.
6. Said _____ (finish) a computer course last July. He (be) a website designer since September.
7. I _____ (have) problems with my computer lately.
8. I _____ (not/work) as a consultant before.
9. Since I _____ (start) university, I _____ (not/have) much spare time.
10. He _____ (have) a number of jobs. He _____ (be) a project manager, a financial analyst and he _____ (start) his own Internet business.
11. It seems as if you_____ (not/have) much rest this week.
12. When she _____ (be) younger, she _____ (play) computer games every day.
13. I have to finish the report. I (start) it last Monday but so far I _____ (write) only pages.
14. We _____ (see) each other only twice this month.
15. Work _____ (be) so difficult lately. I _____ (work) late every night this week. I'm tired and I _____ (not/get) much sleep last night.
16. Scientists still _____ (not/find) a cure for many diseases.
17. They _____ (not/be) very successful over the last 5 years.
18. I _____ (complete) now a postgraduate degree in business administration.
19. I _____ (work) already for several companies on a temporary basis.
20. My job _____ (change) a lot since last year.

14. Use Present Simple, Present Continuous, Present Perfect, Past Simple or Past Continuous.

I _____ *(1. to browse)* through the small ads in the local newspaper when I _____ *(2. to see)* an advertisement for a second hand word processor, so I _____ *(3. to decide)* to give them a ring to get more information. I _____ *(4. to have)* a computer but it _____ *(5. to have)* enough memory for the project I _____ *(6. to work)* on at the moment. In most occupations nowadays it _____ *(7. to become)* useful to be "computer-literate" but in my profession it _____ *(8. to become)* an absolute necessity. I don't get much pleasure out of sitting in front of a computer screen for hours, but I don't stand much chance of promotion without computer skills. So yesterday I _____ *(9. to make)* an appointment to see my bargain computer the next day.

15. Use Past Perfect or Past Simple:

1. We _____ (to summarize) the detailed properties with our adviser by the meeting.
2. By the end of the month she _____ (to delete) some messages from the server.
3. I_____ (to come) a minute late. Eve _____ (to design) already a site.

4. Sam couldn't use the machine because it _____ (to be) in the rain for some time.

5. He _____ (to receive) an e-mail message and _____ (to send) it to another address.

6. The information security specialist to wanted to know if I ever _____ (to have) any problems with anti-virus protection.

7. She _____ (to fail) the exam because she _____ (not to study).

8. He _____ (to click) on the icon with the mouse and _____ (to get) on the Internet.

16. Grammar revision. Read the text and fill in the gaps choosing appropriate tense forms:

Hannah Jones _____ (gaze) into the future of futurology. People have always wanted to look into the future. I _____ (be) no exception. I _____ (read) my horoscope every day: " When you _____ (get) home on Friday, you _____ (have) a pleasant surprise". I _____ (live) alone and my puppy _____ (not be) house-trained yet, so I hardly ever have a pleasant surprise at home.

This weekend, however we _____ (get) a surprise because hundreds of futurologists _____ (meet) at Newcastle University. The conference _____ (start) on Thursday and the experts _____ (discuss) the impact of technology on the future. Yesterday I _____ (log) on to the conference site and _____ (find) these predictions: The technology already _____ (exist), so very soon all of us _____ (use) our voices to give instructions to computers.

In the next few years we _____ (communicate) with our friends using life-sized video images on large screens in our living-rooms.

By the year 2030, computers _____ (become) more efficient and powerful than the human brain.

By the year 2040, genetic engineering _____ (enable) us to live for at least 150 years.

By the middle of the century, computers, millions of times smarter than us, _____ (develop). By the time we _____ (link) our brains with "ultra-smart" computers.

By the end of the century, we _____ (colonize) our solar system and _____ (look) for ways to colonize deep space!

Much more interesting than horoscopes, I _____ (be) sure you _____ (agree)! I already (decide) that I _____ (give) up astrology and take up futurology. I'll be there in Newcastle this weekend. At nine o'clock on Sunday morning I _____ (listen) to the great Duke Wilard talking about the future. If you can't beat the future, join it!

17. a) Study the following table. Formulate the rule.

	Present Perfect Continuous	**Past Perfect Continuous**	**Future Perfect Continuous**
+	I **have been V_{ing}** He,she,it **has been V_{ing}** We,you,they **have been V_{ing}**	**had been V_{ing}**	**will have been V_{ing}**
-	I **have not been V_{ing}** He,she,it **has not been V_{ing}** We,you,they **have not been V_{ing}**	**had not been V_{ing}**	**will not have been V_{ing}**
	Have I, we, you, they **been V_{ing}**?	**Had** I, he, she, it, we, you, they	**Will** I, he, she, it, we, you, they

?	**Has** he,she,it **been V_{ing}**?	**been V_{ing}**?	**have been V_{ing}**?
	for *в течение какого-то времени* since *с, с тех пор как*	for *в течение какого-то времени* since *с, с тех пор как*	for *в течение какого-то времени* since *с, с тех пор как*
USE			
	- to put emphasis on the duration of an action which started in the past and continues up to the present, especially with time expressions such as for, since, all morning / day / year, etc.; - for an action which started in the past and lasted for some time; the action may have finished or may still be going on, the result of the action is visible in the present; - to express anger, irritation or annoyance.	- to put emphasis on the duration of an action which started and finished in the past before another past action or a stated time in the past, usually with since or for; - for an action which lasted for some time in the past and which result was visible in the past.	-to emphasise the duration of an action up to a certain time in the future.

b). Read the sentences, make them negative and interrogative.

1). They have been discussing the situation since the morning.
2). The printer has been working in an online mode for half an hour.
3). He had been studying the scanner manuals for an hour when I came.
4). He has been delivering a lecture about computer programmimg languages since 9.50.
5). They will have been discussing the principles of speech output since the beginning of the conference tomorrow.
6). He has been developing these ideas for a long time.
7). The students had been translating an article for 20 minutes when the teacher brought dictionaries.
8). He had been chattering with his friend in the skype for some hours when the door bell rang.

18. Open the brackets and use perfect continuous forms.

1). Have you seen my bag anywhere? - I _____ (look) for it for ages.
2). Helen had black ink on her hands because she _____ (fill) her ink printer cartridge.
3). It _____ (rain) for three days now.
4). Gregory _____ (work) for hours when we come.
5). I'm sorry for keeping you waiting. I _____ (try) to make a telephone call to Rome.
6). How long you _____ (wear) glasses?
7). The children _____ (look) forward to this holiday for months.
8). The radio _____ (play) since 7 a.m. I wish somebody would turn it off.
9). By the end of this month they _____ (carry out) a project for a year.
10). All the roads were blocked: it _____ (snow) all night long.

19. a). Study the following table.

1. Perfect Simple expresses a completed action and *I have painted the kitchen and now I'm washing the*
Perfect Continuous expresses an activity over a *floor. I have paint in my hair because I have been*

period, and things that happened during the activity.	*decorating. I have been translating all day. I have translated three articles.*
2. Perfect Simple expresses a permanent state and Perfect Continuous can sometimes express a temporary activity.	*I have been living in this flat for the past few months (temporary). I have lived here all my life (permanent).*
3. Some verbs have the idea of a long time: wait, work, play, try, learn, rain. They are often found in the Continuous. Others don't have: find, start, buy, die, lose, break, stop and are usually found in the Simple.	*I have been waiting for you for a long time.* *She has lost her copy-book.*

b). Read the following situations and make up sentences using the Perfect Tenses. Follow the example: *He began reading the newspaper at 3 o'clock. It is now 5 o'clock, and he is still reading the newspaper. - He has been reading the newspaper since 3 o'clock, or for two hours. At 4 o'clock he had been reading the newspaper for an hour. At 6 o'clock he will have been reading the newspaper for 3 hours.*

1. I began listening to the wireless at 6 o'clock. It is 7 o'clock now and I am still listening to the wireless. [At 6.30…At 7.00…At 8.00…].
2. They began writing their abstracts at 7 p.m. It is 9 p.m. now and they are still writing their abstracts. [At 7.30…At 9.00 p.m…At 10.00 p.m…].
3. She went to live in Moscow in 2000. It is 2009 now and she is still living in Moscow and will live till 2020. [In 2001…In 2003…In 2019…].
4. He began working at his invention in 1970. it is 2010 now and he is still working at it. [In 1975…In 2010…In 2012…]
5. I began studying at the University in 2008. It is 2010 now and I am still studying there. [In 2002…In 2010…In 2012…].

c). Complete the sentences using the Perfect Simple or the Perfect Continuous Tense.

1. Someone _____ (use) my computer lately.
2. We _____ (learn) English for 6 years.
3. I can't listen to him any more. He _____ (lecture) us for an hour and a half.
4. We _____ (phone) Mrs. James for half an hour but can't get through.
5. You _____ (phone) Mrs. James? - Sorry, not yet. I'll do it in a minute.
6. Her eyes were red. It was clear she _____ (cry).
7. We _____ (fly) non-stop for four hours before we get to Rome.
8. What _____ (do) here for so long?
9. Sorry about the mess. I _____ (paint) the house since lunchtime. I _____ (paint) three walls.
10. It _____ (rain) for several days before the wind changed.
11. He _____ (compile) two programs this month.
12. I found a key in our garden. It _____ (fall) out of your pocket.
13. By this time next week, Dr Johnson _____ (work) on this project for a year.
14. Mr. Thompson _____ (wait) for 3 quarters of an hour before the secretary came.
15. Miss Honey _____ (teach) for ten years this summer!
16. Here you are! I _____ (look) for you everywhere!
17. How long _____ (have) these glasses?
18. James said he _____ (wait) too long, he couldn't wait any longer.
19. By 6 o'clock John _____ (play) on the computer for 5 hours.

20. Translate from Russian into English.

1). Я ожидаю их уже полтора часа, но никто еще не пришел.
2). Он уже рководил своим отделом и многому научился за это время.
3). Я жду самолет уже два часа. Но о его задержке объявили только что.
4). Его отец работал на IBM уже год, когда вся семья переехала жить в Армонк, штат Нью Йорк.
5). Я чувствую запах табака. Ты что, курил?
6). Ты хорошо знаешь этот город. - Ничего удивительного, я живу здесь с детства.
7). К 2015 году Вы не жили в этой стране достаточно долго, чтобы принять участие в выборах.
8). Я набирал этот текст два часа, а потом нашел его в Интернете.
9). Я слышал, в следующем месяце Вы выходите на пенсию? Сколько к тому времени Вы уже здесь будете работать?
10). Мы упорно работали и смогли завершить проект вовремя.

21. Read the text and say what computer-related specialities are mentioned in it.

Careers in the Computer Field

The information technology (IT) sector experienced tremendous growth in the late 20th century. By the early 21st century, computer-related jobs employed millions of people around the world.

Not all computer professionals work directly for a company. Many are independent consultants who are hired to accomplish a specific task and are paid by the hour. A consulting job may last from a few hours to several years.

Systems analysts develop methods for computerizing businesses and scientific centers. Systems analysts improve the efficiency of systems already in use.

Computer-security specialists help to protect the integrity of the huge information banks developed by businesses and governments. Computer security specialist responsibilities include designing and implementing safety measures and and data recovery plans, monitoring network activity to identify vulnerable points of access, acting on privacy breaches and malware threats. They also install, configure and upgrade security software (e.g. antivirus programs), secure networks through firewalls, password protection and other systems, monitor network activity to identify issues early and communicate them to IT teams, serve as security experts and conduct trainings when needed.

Applications programmers write commercial programs to be used by businesses and other organizations as well as in the home. Systems programmers write the complex programs that control the inner workings of the computer. In the IT department of a large organization, systems programmers are technical experts responsible for the efficient performance of some or all of the computer's system software (operating systems, networks, DBMSs, etc.). In a user organization, systems programmers typically do not write programs, but perform many technical tasks that integrate vendors' software. They also act as technical advisors to systems analysts, application programmers and operations personnel. Many specialty areas exist within the two large groups of applications programmers and systems programmers, such as database programmers and designers of graphical user interfaces.

As more small- and medium-sized businesses have become computerized, they have required more people to operate their systems. Computer operators and systems administrators typically need to handle several types of computers and be familiar with a diversified range of applications

and systems software. Companies also need specialists to administer their Web sites.

Other important careers in the IT field include computer scientists, who perform research and teach at universities, and hardware designers and engineers, who work in areas such as microchip and peripheral equipment design. Information-center or database administrators manage the information collections developed by businesses or data banks.

Management careers include that of a data-processing manager, who is responsible for managing the computing needs of a business. At the executive level is the chief information officer (CIO) of a company, who is responsible for the computing needs of an entire corporation.

Various support careers also exist, including technical writing, computer-based training, and operations management, which do not necessarily require extremely technical backgrounds. Graphic artists (especially those familiar with computer-based drawing programs) work with programmers and Web-page designers to create informative and attractive Web sites. Their job is to make the websites and mobile applications they work on a pleasure to use.

22. Express your agreement or disagreement with the following statements.

1). The information technology sector experienced tremendous progress in the late 19th century.

2). Systems analysts design and implement safety measures, install and upgrade security software.

3). Applications programmers write commercial programs to be used by commercial companies.

4). Computer scientists work in areas such as microchip and peripheral equipment design.

5). Systems programmers are technical experts responsible for the effective performance of the computer's system software.

6). Management careers include data-processing managers and chief information officers.

7). Various support careers include technical writing, computer-based training, and require extremely technical backgrounds.

23. Complete the following sentences according to the text.

1). Not all computer professionals work ….

2). Systems analysts develop ….

3). Computer-security specialists help ….

4). Security methods include ….

5). Systems programmers write ….

6). Applications programmers write ….

7). Computer operators and systems administrators typically ….

8). Computer scientists carry out ….

9). Hardware designers and engineers develop ….

10). Web-page designers ….

11). The chief information officer is responsible for …. and a data-processing manager is responsible for ….

24. Ask your groupmates:

1) how many people around the world are engaged in computer-related professions;

2) what professions mangerial and technical career paths include;

3) what he/she would like to work as after graduation from the university;
4) what the highest-paid position is in his/her opinion ;
5) what the most interesting computer-related job is in his/her opinion.

25. Work In pairs. Compare different careers mentioned in the text.

a) systems analysts and systems programmers;
b) applications programmers and systems programmers;
c) data processing managers and chief information officers;
d) systems administartors and systems analysts;
e) systems administartors and database administartors;
f) computer scientists and hardware engineers;
g) computer operators and hardware designers.

26. Dwell upon the following statement.

Steve Jobs famously said, "**Web designers are artisans and true digital creatives.** Design is not just what it looks like and feels like. Design is how it works. The best web designers know that good web design is nearly invisible but utterly delightful. If you love art, beauty, people, fashion, and thinking about how someone lives, day-in-day-out, with one of your creations, then you will excel at web design."

Do you agree or disagree? Express sensible reasons in a logical manner.

Unit 4

Grammar: **Passive Voice**
Oral Topic: **History of the Computer**

Lexical and Grammar Exercises

16. ***Match the English words and word combinations words with their Russian equivalents.***

11) **string** [strɪŋ] – *струна; строка (символов в тексте); нитка*

The first mechanical calculator, a system of strings and moving beads called the abacus, was devised in Babylonia in about 500 BC. When you push the On switch, one little burst of electricity - only about 3-5 volts - starts a string of events that magically brings to life what would otherwise remain an oversized paperweight.

12) **cog** [kɔg] –*выступ (шестерни), зубец (колеса)*

In 1642, French scientist Blaise Pascal invented a calculator made of wheels and cogs.

13) **revolution** [ˌrev(ə)'luːʃ(ə)n] – *круговое движение, вращение; тех. оборот*

The wheel spins at 950 revolutions per minute. The disk will make 50 revolutions in one second, meaning that 800 sectors will pass under the read/write head in a second.

14) **notch** [nɔʧ] – *выемка, метка, зарубка; зазубрина; борозда*

When a units wheel moved one revolution (past 10 notches), it moved the tens wheel one notch; when the tens wheel moved one revolution, it moved the hundreds wheel one notch; and so on.

15) **analytical engine** – *аналитическая машина (механический компьютер Ч. Бэббиджа)*

Babbage's Difference Engine (of which only a demonstration model was constructed) could be modified to perform a variety of calculations, but his Analytical Engine (the construction for which he never received funding) was designed to read instructions in the form of holes in paper cards.

16) **execute** ['eksɪkju:t] – *осуществлять, выполнять, делать; реализовать; доводить до конца*

This program automatically executes the commands once a day. Early computers were not known for their flexibility—the steps that each device executed were built into the control unit as a part of the machine.

17) **collate** [kə'leɪt] – *критически рассматривать, сравнивать, сопоставлять; располагать, складывать в нужном порядке*

A computer system is used to collate information from across Britain. The information system used to collate these statistics is presumably extensive and costly.

18) **relay** ['ri:leɪ] , [ri:'leɪ] – *реле; переключатель; релейная связь*

The second relay is connected with the electricity mains line via a motor power-on button. The Mark I, completed in 1944, made heavy use of electronically controlled mechanical relays.

19) **cryptography** [krɪp'tɒgrəfi] – *шифрование, криптография*

Cryptography is the art of protecting information by transforming it (encrypting it) into an unreadable format. The main problem with public-key cryptography is that it is a thousand times slower than symmetric cryptography.

20) **encode** [ɪn'kəud] – *кодировать, шифровать*

This type of scanner can encode characters on a page and store them electronically. A transmitter encodes information to travel over a channel through distance and time.

21) **wiring** ['waɪərɪŋ] – *прокладка электрических проводов; электропроводка*

The area of practical application of the systems is rather limited because of difficulties of laying wiring in remote premises. The wiring plan included an Ethernet LAN in the 8th grade room and a campus LAN with connections in all classrooms and offices.

22) **determine** [dɪ'tɜ:mɪn] – *определять, решать, устанавливать*

The storage-allocation strategy determines how the storage for names is accessed. Artificial neural networks (ANNs) possess the ability to determine nonlinear relationships.

23) **feasible** ['fi:zəbəl] – *реальный, возможный, осуществимый, выполнимый*

Related words: **feasibility** /ˌfi:zə'bɪləti/ – *осуществимость, выполнимость*

Steady advances in digital memory technology are making mass-storage devices technologically feasible and increasingly cost-effective. Providing a big enough ROM to hold the entire operating system so that booting from mass storage would not be necessary is feasible for embedded systems with small operating systems.

17. Give English equivalents for the words in brackets.

6. Powerful computers have made it _____ (возможным) to search through millions of records at great speed.
7. The photocopier will _____ (сложит в нужном порядке) the pages of the report.
8. Computer models help _____ (определить) whether a particular area is likely to flood.
9. A microchip _____ (шифрует) a unique series of numbers that can be detected when activated by a scanning device.
10. Check that the computer _____ (выполняет) your commands.
11. All the _____ (электропроводка) in the house needs to be replaced.

12. Her work is already widely influential in mathematics, with possible future use in _____ (шифровании) and theoretical physics.

13. A character _____ (строка) is a series of characters represented by bits of code and organized into a single variable.

18. *Replace by one word.*

A group of letters, words, or numbers, especially in a computer program.

A system of wires.

A progressive motion of a body around an axis.

To find out or come to a decision about by investigation, reasoning, or calculation.

Capable of being done or carried out; capable of being used or dealt with successfully.

To carry out fully.

To convert (something, such as a body of information) from one system of communication into another.

The encoding and decoding of messages in secret code.

19. *Fill in the blanks with the word from the active vocabulary.*

1. It is not _____ to have security cameras in every part of the building.
2. Some electricity companies do free visual _____ checks for elderly or disabled people.
3. The app is designed to _____ photos from a smartphone's photo albums and then share them.
4. Quizzes are used to _____ how much material students have learned.
5. This motor operates at a speed of 5,000 _____ *per minute*.
6. Companies often use _____ to protect private information.
7. A _____ is an electrically operated switch.
8. A *character* _____ is a series of *characters* manipulated as a group.

5. *Match the words with similar meaning.*

- collate — a) develop
- execute — b) decide
- determine — c) calculate
- encode — d) accumulate
- devise — e) encrypt
- count — f) perform

6. *Study the following table. Formulate the rule.*

Tense	Active Voice	Passive Voice
Present Simple	$V_1/V_{-(e)s}$	am/is/are + V_3
Past Simple	V_2	was/were+ V_3
Future Simple	will+V_1	will+be+V_3
Present Continuous	am/is/are V_{ing}	am/is/are +being+ V_3
Past Continuous	was/were+V_{ing}	was/were+being+V_3
Present Perfect	has/have+V_3	has/have+been+V_3

Past Perfect	**had+V_3**	**had+been+V_3**
Future Perfect	**will+have+V_3**	**will+have+been+V_3**

7. ***Change the sentences from the active into the passive paying attention to tenses:***

To change the sentence from the active into the passive:

16. **the object of the active sentence becomes the subject in the passive sentence;**
17. **the active verb remains in the same tense, but changes into a passive form;**
18. **the subject becomes the agent, and is either introduced with the preposition by or omitted.**

active	**subject**	**verb**	**object**
	Mark	**developed**	**an application.**
passive	**object**	**verb**	**agent**
	An application	**was developed**	**by Mark.**

1. Programmers determine the field width by counting characters of the longest data item.
2. They are paying little attention to the application they are developing.
3. The scientists have used new technologies to upgrade some systems.
4. During these interviews managers had given programmers the opportunity to define the data needed to support these business processes.
5. The developers often did not catch errors made in the analysis and design phases of a project until the implementation phase.
6. The company will have introduced formalized planning and control mechanisms by the end of the year.
7. The designers will use computer-aided publishing graphics to visualize the pages of books, magazines, and newspapers as they will be making them.
8. They were making efforts to design data bases that support many applications instead of just one at a time.

8. ***Fill in the gaps using the appropriate form of the verb in brackets:***

11. The ways we work, play, communicate, and access information radically _____ (reshape) due to the invention and evolution of the PC.
12. Main memory _____ (use) to hold data that _____ (need) in the near future.
13. The first mechanical calculator, a system of strings and moving beads called the abacus, _____ (devise) in Babylonia in about 500 BC.
14. The part of the processor, which controls data transfer between the various input and output devices, _____ (call) the control unit.
15. Microsoft _____ (found) by Bill Gates.
16. By the time you finish reading this sentence, there _____ (be) 219,000 new Facebook posts.
17. The speed and power of supercomputers are almost beyond human comprehension, and their capabilities continually _____ (improve).
18. *C* language _____ (develop) in the 1970s.
19. While enormous advances _____ (make) in computing technologies over the last decades, there are still many computational problems, both in physics and other

sciences, that are much too large to solve on a classical computer.

20. Tape storage still _____ (use) after all these years.

21. In the 1980s at least 100,000 LANs _____ (set up) in laboratories and offices around the world.

22. Keep in mind that the lines between computer types constantly _____ (blur).

23. When you turn on your PC, most of the electricity rushes off to warm up the components that _____ (call on) in a few seconds to send, receive, slice, squeeze, and memorize bits and bytes of data.

24. Most of Charles Babbage's analytical engine actions were to be executed through the use of perforated cards—an adaptation of a method that already _____ (use) to control automatic silk-weaving machines called Jacquard looms.

25. By the 2030s, the Internet _____ (transform) into the Tactile Internet.

26. The first digital computer _____ (build) by the University of Pennsylvania in 1946.

27. Last year more software companies _____ (launch) than ever before.

28. At that time millions of computers _____ (connect) together through the fast-developing Internet and Berners-Lee realised they could share information by exploiting an emerging technology called hypertext.

29. The user can communicate directly with the computer when programs _____ (type in and run).

30. Networks of computers _____ (use) to make information available on a wordwide scale.

31. A lot of creative things _____ (do) with paint software, word processing, desktop publishing systems, and the like.

32. Do I need to stay connected to the Internet while my files _____ (synchronize)?

33. The product _____ (release) for use or for sale after it has passed all its tests and (verify) to meet all its requirements.

34. Since the last few years vigorous efforts _____ (make) to improve the quality of IT education and research.

35. By the close of the 20th century, the role of minicomputers _____ (take) over by PCs and workstations.

36. Traditionally, networks _____ (split) between wide area networks (WANs) and local area networks LANs.

37. Students knew they _____ (watch), but they couldn't resist texting or using social media.

38. The operating system _____ (notify) if the process attempts to execute a privileged instruction.

9. ***Translate from Russian into English:***

1.Эти дисциплины преподаются квалифицированными преподавателями. 2. Эти лекции посещаются многими студентами. 3. Язык программирования C++ был создан в начале 1980-х годов. 4. Требования обычно пишутся не программистами, а людьми, которые находятся в тесном контакте с будущими пользователями программного обеспечения. 5. Оперативная память хранит инструкции и данные, которые обрабатываются процессором. 6. Какой язык программирования используется для написания этой программы? 7. Какие доклады были сделаны на этой конференции? 8. Z3 использовался

для расчётов, связанных с конструированием самолётов. 9. Тест был выполнен всеми студентами до того, как прозвенел звонок. 10. Когда вошел декан, в лаборатории проводился эксперимент. 11. В современном мире роботы используются в абсолютно в различных сферах жизни 12. Компьютер Colossus использовался британскими криптографами, чтобы взломать немецкий военный шифр. 13. Когда все службы будут установлены, вы увидите логотип Windows на экране.14. Когда вы вставляете данные из буфера обмена в приложение, оно проверяет различные форматы, в которых данные были скопированы. 15. К концу 60-х для моделирования сложных систем был разработан язык программирования Си́мула-67. 16. После лекции было задано много вопросов. 17. Когда вам нужно получить доступ к информации хранящейся в базе данных, мы используем отчет, который был создан для работы с этой базой данных. 18. Хорошая работа этого прибора гарантируется. 19. Носимые компьютеры - это компьютеры, которые носят на теле. 20. Исследования в области коммуникации проводятся в университете с 2014 года. 21. Когда работа будет окончена, выключите компьютер. 22. В конце 1920-х–1930-х были созданы новые виды вычислительных машин.

10. Look at the title and say what information the text gives. Read the text attentively for the details.

History of the Computer

The first mechanical calculator, a system of strings and moving beads called the abacus, was devised in Babylonia in about 500 BC. The abacus provided the fastest method of calculating until 1642, when French scientist Blaise Pascal invented a calculator made of wheels and cogs. When a units wheel moved one revolution (past 10 notches), it moved the tens wheel one notch; when the tens wheel moved one revolution, it moved the hundreds wheel one notch; and so on. Many scientists and inventors, including Gottfried Wilhelm Leibniz, made improvements on Pascal's mechanical calculator.

The concept of the modern computer was first outlined in 1833 by British mathematician Charles Babbage. His design of an “analytical engine” contained all the necessary elements of a modern computer: input devices, a store (memory), a mill (computing unit), a control unit, and output devices. The design called for more than 50,000 moving parts in a steam-driven machine as large as a locomotive. Most of its actions were to be executed through the use of perforated cards—an adaptation of a method that was already being used to control automatic silk-weaving machines called Jacquard looms. Although Babbage worked on the analytical engine for nearly 40 years, he never completed construction of the full machine.

Herman Hollerith, an American inventor, spent the 1880s developing a calculating machine that counted, collated, and sorted information stored on punch cards. When cards were placed in his machine, they pressed on a series of metal pins that corresponded to the network of potential perforations. When a pin found a hole (punched to represent age, occupation, and so on), it completed an electrical circuit and advanced the count for that category.

In 1896 Hollerith founded the Tabulating Machine Company to produce similar machines. In 1924, the company changed its name to International Business Machines Corporation (IBM). IBM made punch-card office machinery the dominant business information system until the late 1960s.

From 1939 to 1942, American physicists John V. Atanasoff and Clifford Berry built a computer based on the binary numbering system. Their ABC (Atanasoff-Berry Computer) is often credited as the first electronic digital computer. Atanasoff reasoned that binary numbers were better suited

to computing than were decimal numbers because the two digits 1 and 0 could easily be represented by electrical circuits, which were either on or off.

In 1941 German inventor Konrad Zuse produced an operational computer, the Z3, that was used in aircraft and missile design. His computers were destroyed during World War II, but he was able to save a partially completed model, the Z4, whose programs were punched into discarded 35-millimeter movie film.

Harvard mathematician Howard Aiken directed the development of the the Harvard Mark I—an electronic computer that used 3,304 electromechanical relays as on-off switches. Completed in 1944, its primary function was to create ballistics tables to make Navy artillery more accurate.

Colossus was one of the machines that British cryptographers used to break secret German military codes. It was developed by a team led by British engineer Tommy Flowers, who completed construction of the first Colossus by late 1943. Messages were encoded as symbols on loops of paper tape, which the 1,500-tube computer read at some 5,000 characters per second.

The distinction as the first general-purpose electronic computer properly belongs to ENIAC (Electronic Numerical Integrator and Computer). Designed by two American engineers, John W. Mauchly and J. Presper Eckert, Jr., ENIAC went into service at the University of Pennsylvania in 1946. Its construction was an enormous feat of engineering—the 30-ton machine was 18 feet (5.5 meters) high and 80 feet (24 meters) long, and contained 17,468 vacuum tubes linked by 500 miles (800 kilometers) of wiring. ENIAC performed about 5,000 additions per second. Its first operational test included calculations that helped determine the feasibility of the hydrogen bomb.

11. ***Express your agreement or disagreement with the following statements.***

- The first mechanical calculator, the abacus, used a system of cogs.
- The concept of the modern computer was first outlined by Blaise Pascal.
- Unlike modern computers, an “analytical engine” contained only a store (memory) and a mill (computing unit).
- An “analytical engine” used perforated cards as input.
- In 1896 Hollerith founded the Tabulating Machine Company, which later changed its name to IBM.
- ABC (Atanasoff-Berry Computer) was based on the binary numbering system.
- Z3 is often credited as the first electronic digital computer.
- The Harvard Mark I used 3,304 electromechanical relays as on-off switches.
- Colossus was one of the machines that German cryptographers used to break secret British military codes.
- ENIAC (Electronic Numerical Integrator and Computer) is the first general-purpose electronic computer
- ENIAC performed about 1,000 additions per second.

12. Complete the following sentences according to the text.

1. The first mechanical calculator used ….
2. Blaise Pascal invented ….
3. Babbage’s analytical engine consisted of ….
4. From 1939 to 1942, John V. Atanasoff and Clifford Berry built ….
5. In 1941 Konrad Zuse produced ….

6. Harvard Howard Aiken directed the development of ….
7. Colossus was used by British cryptographers for ….
8. The measurements of ENIAC were …..
9. ENIAC was made up of ….
10. ENIAC could carry out ….

13. Ask your groupmates:

17. how long the abacus provided the fastest method of calculating;
18. what operating principle Pascal's calculator had;
19. what input Babbage's "analytical engine had;
20. what functions Hollerith's calculating machine performed;
21. if Atanasoff and Berry used decimal numbering system for their ABC;
22. what input Colossus used;
23. what ENIAC first operational test helped determine.

14. ***Dwell upon the following statement.***

Nicholas Negroponte, the co-founder of the MIT Media Lab, said, "Computing is not about computers anymore. It is about living."

Do you agree or disagree? Do you think people rely too much on computers? Do you consider that the future of human development belongs to the computer? Express sensible reasons in a logical manner.

Unit 5

Grammar: The Sequence of Tenses
Oral Topic: Computer Generations

Lexical and Grammar Exercises

1. Match the English words and word combinations words with their Russian equivalents.

1. hardware	a). двоичный
2. software	b). устройство вывода
3. input device	c). перфокарта
4. output device	d). магнитная лента
5. memory and storage device	e). интегральная схема
6. punched card	f). клавиатура
7. magnetic tape	g). переносной, портативный
8. magnetic core	h). устройство ввода
9. binary	i). кремний
10. assembly language	j). магнитный сердечник
11. integrated circiut	k). программное обеспечение
12. semiconductor	l). аппаратное обеспечение
13. keyboard	m). устройство памяти и хранения информации

14. silicon	n). полупрводник
15. handheld	o). язык ассемблера
16. artificial intelligence	p). распознавание голоса
17. voice recognition	q). применение, приложение
18. application	r). искусственный интеллект

2. Match the words with similar meaning.

1) to input	a) to carry out
2) to develop	b) mighty
3) instruction	c) to output
4) to perform	d) to communicate
5) to interact	e) to invent
6) to come into being	f) program
7) powerful	g) to appear

3. Match the words with opposite meaning.

1) fast	a) sophisticated
2) simple	b) ineffective
3) input	c) slow
4) efficient	d) reduce
5) increase	e) output

4. Give English equivalents for the words in brackets.

1. With the fifth generation of computing we have PCs as powerful as mainframes and (программное обеспечение) _____ that (выполняет) _____ certain thinking functions only our brains could do.
2. (Операционные системы) _____ made it easier for (пользователей) _____ to work with computers by creating a more friendly (пользовательский интерфейс) _____ .
3. It was during the second generation that the first (световое перо) _____ was used as an (устройство ввода) _____ for drawing on the surface of the monitor.
4. Two of the most significant (приложений) _____ of the third generation were networking communications and (обработка текста с помощью текстовых процессоров) _____ .
5. The (электронная таблица) _____ was a new and original application for the (ПК) _____ , as was desktop publishing.
6. Fourth-generation languages are commonly used with a (системой управления базами данных) _____ , on all classes of computers.

5. Replace by one word from the box.

Spreadsheets	an application
the central processing unit	a mouse
a touch screen	a light pen
an operating system	an integrated circuit

1. The computer's main processing device, often referred to as the "brains" of the computer._____
2. A pen-shaped device that uses a laser beam to transmit signals to the CPU by writing on the

screen. _____

3. This device replaced the thousands of vacuum tubes required in earlier computers. _____

4. Computer programs in which data is displayed in columns and rows. _____

5. Software used to monitor, or supervise, the overall operations of the computer system. _____

6. An input device used to move the cursor around the screen and to point to and select the various options that are available. _____

7. A monitor screen that can detect and respond to something, such as a finger or stylus, pressing on it. _____

8. A program or piece of software designed and written to fulfill a particular purpose of the user. _____

6. Fill in the blanks with the most suitable words.

1._____ are periods based on different types of circuitry, memory and storage, I/O devices.

2. _____ include mice, keyboards, scanners, light pens.

3. Computers of different time periods used vacuum tube, transistors and _____ .

4. Programming languages are divided into low-level and _____ languages.

5. Monitors, printers belong to _____ .

6. Users interact with computers by means of keyboards and monitors, and interface with an _____ .

7. a). Study the following tables.

Sequence of tenses. Direct and Indirect (Reported) Speech.

Direct Speech	Reported Speech
Present Simple **V,Vs** Past Simple **Ved/ V2** Future Simple **will V**	Past Simple **Ved/ V2** Past Perfect **had Ved / V_3** Future Simple in the Past **would V**
Present Continuous **am/is/are Ving** Past Continuous **was/were Ving** Future Continuous **will be Ving**	Past Continuous **was/were Ving** Past Continuous / Past Perfect Continuous **had Ved / V_3** **had been Ving** Future Continuous in the Past **would be Ving**
Present Perfect **have/has Ved / V_3** Past Perfect **had Ved / V_3** Future Perfect **will have Ved / V_3**	Past Perfect **had Ved / V_3** Past Perfect **had Ved / V_3** Future Perfect in the Past **would have Ved / V_3**
Present Perfect Continuous **have/has been Ving** Past Perfect Continuous **had been Ving** Future Perfect Continuous **will have been Ving**	Past Perfect Continuous **had been Ving** Past Perfect Continuous **had been Ving** Future Perfect Continuous in the Past **would have been Ving**

Direct *Speech*	***Indirect*** *Speech*
Personal pronouns (I, you, he, she, it, we, they)	change according to the context.
Possessive pronouns (my, your, his, her, our, their)	
Demonstrative pronouns and adverbs of time:	
this *этот*	**that** *тот*

these *эти*	**those** *те*
here *здесь*	**there** *там*
now *сейчас*	**then** *тогда*, **at that time** *в то время*
ago *тому назад*	**before** *до того, раньше*
today *сегодня*	**that day** *в тот день*
yesterday *вчера*	**the day before, on the previous day** *накануне*
tomorrow *завтра*	**the next day** *на следующий день*
last night *вчера вечером*	**the previous night** *накануне вечером*
next day *на следующий день*	**the following day, the next day, the day after** *на следующий день*
the day after tomorrow *послезавтра*	**two days later** *через два дня*
the day before yesterday *позавчера*	**two days before** *двумя днями ранее*

b). Choose the most appropriate answer.

1. I knew that she … Madrid before, so I asked her to recommend a good hotel.
a) has visited b) has been visiting c) visited d) had visited
2. She promised to help me if I … the answer myself.
a) haven't found b) didn't find c) won't find d) wouldn't find
3. He said that they … each other for many years.
a) know b) have known c) knew d) had known
4. I saw that she … to hold back her tears.
a) tries b) didn't find c) is trying d) was trying
5. He knew that she … as her eyes were red.
a) is crying b) has been crying c) was crying d) had been crying
6. I asked her whether she … there with me, but she said no.
a) goes b) is going c) will go d) would go
7. She said that the robber … her when she was opening the door to her apartment.
a) attacked b) has attacked c) was attacking d) had attacked
8. I wanted to see her but I didn't know if she … in town.
a) is b) was c) were d) had been
9. He told me that he would visit them when he … from Spain.
a) has returned b) returned c) will return d) would return
10. My younger daughter learned in class yesterday that the Earth … around the Sun.
a) revolves b) is revolving c) revolved d) was revolving

8. Study the following table.

We can report:
A. Statements
B. Questions
C. Commands, requests, suggestions

A. Reported statements

1.To report statements we use a reporting verb (say, tell, explain etc.) followed by a that-clause. In spoken English that can be omitted.
2. Pronouns and possessive adjectives change according to the context.
3. There are no changes in verb tenses when the verb in the main clause is in the Present, Future Simple or Present Perfect tense or when the sentences express something which is always true.

He says, "I'll do it at once". - He says he'll do it at once.
*"The earth is round", said the teacher. - We were taught at school that the earth **is** round.*
4. The Past Progressive and Past Perfect don't usually change.
She had made a back-up copy. - He said she had made a back-up copy.
5. Certain modal verbs change as follows:
will/shall - would
can - could (present), would be able to (future)
may - might
shall - should (asking for advice), would (asking for information)
must - must (possibility or deduction)
must - had to (obligation)
6. "Would, could, used to, mustn't, should, might, ought to and had better" remain the same.
7. There is no shift of tenses if the action refers to a definite past moment which may be indicated by an exact date or hour.
I was born in 1987. Linda said that she was born in 1987.
8. The verb tenses can change or remain the same in reported speech when a sentence expresses something which is up to date or still true. However, the verb tenses usually change when something is not true or out of date:
I am an application programmer. He said that he is/was an application programmer.
I like programming. He said he liked programming(but we know he doesn't, not true).
*"Tom is leaving tomorrow," she said. – She said that Tom was leaving **the next day**. (speech reported after Tom had left). She said that Tom is leaving **tomorrow**. (speech reported before Tom has left)*

He says, "I usually buy a pre-paid charge card for small purchases".	*He says (that) he usually buys a pre-paid charge card for small purchases.*
He says, "I'll lend you my camera".	*He says he will lend me his camera.*

B. Reported Commands/Requests/Suggestions

To report commands, requests, suggestions etc. we use a reporting verb (advise ,ask ,suggest ,beg, order ,tell etc.) followed by a **to-infinitive**, a **not to-infinitive** or **an- ing form** (after suggest).

He says to me, "Avoid phoning in peak times".	*He advises (asks, tells, recommends)* me to avoid phoning in *peak times.*
He says to me, "Don't give your password to anybody".	*He asks (tells, orders, recommends) me not to give my password to anybody.*
He says, "Let's reinstall the sound drivers".	*He suggests reinstalling the sound drivers.*

C. Reported Questions

In Reported Questions we use affirmative word order and the question mark is omitted. To report a question we use:
a) ask + WH-word (who, what etc.) when the direct question begins with such a word
b) ask + if/whether when the direct question begins with an auxiliary verb (do,has,can etc.)
c) do, does, did in reported questions are omitted.
d) Pronouns, possessive adjectives change according to the context.

He says, "Do you work for this company?"	*He asks if/whether I work for this company.*
He says, "What site did you use?"	*He asks what site I used.*

Indirect questions are different from Reported questions. We use Indirect questions when we ask for information, whereas we use Reported questions to report someone else's questions. Indirect questions are introduced with «Could you tell me …? Do know …? I wonder … I want to know … » and their verb is in the affirmative.

Direct questions	***Reported questions***	***Indirect questions***
He asks me, "Did they	*He asks me if they*	*He wonders if they used*

use Linux?" *He asks me, "What does data encryption provide?"*	*used Linux.* *He asks me what data encryption provides.*	*Linux.* *He wants to know what data encryption provides.*

a) Turn the following passage about Ralph, an ex-hacker, into Indirect speech. Use the reporting verbs (say, tell, explain, add etc.) in the Past Simple.

"… I was arrested in the 1990s for hacking into a large American company. I got into the CEO`s personal files and left a very rude message. Now I am a computer security expert and I use my skills to make cyberspace safer. Hacking means getting into computer systems you don't have permission

to get into. There are various ways of doing it. First you can try to guess somebody's password. Or you find a bug in a computer system and get in. Sometimes it is very simple. If that doesn't work, you try to connect to it over the Internet. And normally that's not very difficult. If you want to avoid being hacked into, you have to keep ahead of the hackers. You can install firewalls to restrict access to a network. You can have a callback system. And finally, you should have really secure passwords. I hope you won't use a common name or a dictionary word or anything short. Checking the system regularly also helps."

b) David is a computing support officer. He is giving a user advice about the problem. Report his commands using reporting verbs in the Past Simple.

1. Give me the service tag number.
2. Wait a moment.
3. Describe what the problem is.
4. Don't be in a hurry.
5. Try to reinstall the sound drivers.
6. Contact us again if that doesn't cure the problem.
7. Quote this job number. It's E83095.And tell me your name, please.
8. Don't switch off without closing your PC.
9. Don't forget to keep in touch with us if there's still a problem.

c) Turn the following questions into Reported or Indirect questions. Begin with the words: I ask … She asks … Could you tell me …? Do you know …? I wonder … The teacher would like to know …

1. What does Louise do with clipart?
2. What is the difficulty in selling through a website?
3. How many sites have you found?
4. What can medical expert systems do?
5. How fast is the processor?
6. Does data flow from ROM to the CPU?
7. How do digital cameras differ from conventional cameras? How do they work?
8. What is a pixel?
9. Is special software required?
10. What does the capacity of a digital camera depend on?
11. What method of software distribution will replace optical disks?
12. Why did he choose to do his diploma in support?

13. What was the problem with the program?
14. Who taught you Maths?
15. Whose classes did you most enjoy?
16. What are the main functions of an operating system?
17. What is “My Briefcase» for?
18. How do you delete files permanently?
19. Can computers communicate with synthesizers?
20. Is there an image on the screen?

9. The following contains sentences with present tense verbs in the main clause. Change the main clause to the past and adjust the dependent clause as necessary.

Example: We hope that he will be able to attend. - We hoped that he would be able to attend.

1. He says that he will finish the project in May.
2. Mark thinks that the lecture is going to take place at 9 o’clock.
3. I hear that Kate has accepted a new position at Microsoft.
4. Mary tells her friends that they are good programmers.
5. The student is asking the professor when the class will do the next experiment.
6. The corporation announces that the new computer can be used for other than academic or military purposes.
7. He adds that all these inventions paved the way for the birth of the electronic digital computer.
8. He explains that this new computer can do unprecedented number of additions per second.

10. Report what the students said when they read the newspaper article:

1. (Bill). Scientists from Russia and the United States have had direct computer linkage for about 5 years.
2. (Tony). Computer connections have fostered scientific collaborations.
3. (Ann). The new network should strengthen the collaborations between these countries.
4. (Lucy). The fibre optic connection between Russia and China was completed a few months ago.
5. (Rob). Soon, scientists in the United States, China and Russia will be able to collaborate in cyberspace over a new high-speed computer network.
6. (Paul). Today, market players, especially small ones, are moving to the web.
7. (Dan). The vast majority of brokers have their own web based trading system.
8. (Tina). After you sign an agreement you will receive a login and password and get a PIN or a disk with an electronic key.
9. (Jim). The broker will lower his commission if a client submits his orders through the Internet.

11. Choose a reporting verb and turn the following from Direct into Reported speech. Use the following verbs: advised, asked, wondered, ordered, suggested, explained, warned, promised, begged, offered, refused, told.

1. “I think you should reboot your PC,” the computing support officer said to me.
2. “I will not tell you my password,” the young man said to the stranger.
3. “I really will make full backups”, he said.

4. “Do you know where he has sent the message?” she said to him.
5. “What have you done to send a secure message?” the boy said to his friend.
6. “Encrypt the message with the recipients public key”, the teacher said to his assistant.
7. “We will pay for your courses with the training company”, his boss said.
8. “Would you like me to help you convert data to a secret code?” he said to her.
9. “Let’s make the picture on your monitor wider”, she said.
10. “In 1642 Blaise Pascal invented an automatic desktop machine”, the lecturer said to the students.
11. “Don’t use a common name or a dictionary word or anything short for your password”, the tutor said to the students.
12. “Let’s make the print size larger”, said Tim.
13. “Let me find some information about safe data transfer, please”, she said to her fellow students.
14. “I promise I’ll e-mail you as soon as I arrive”, said Bill.
15. “Don’t punish me for using your computer, please,”, the child said to his parents.
16. “The computer microchip was invented in 1958”, the teacher explained.

12. Change the following into indirect questions beginning with the words given.

1. Can I buy a really up-to-date encyclopedia? The boy asked……
2. Where were you yesterday? She asked him……
3. They are interviewing a computer science graduate now, aren’t they? She wanted to know……..
4. What problem is there with the existing system? I didn’t know……..
5. Who will use the new system this week? I didn’t know……..
6.What is the next step? She wondered……
7.Did you test the program last night? She asked him…….
8.Why is he trying to get help at the computer information center? Bill wanted to know……..
9.Are they going to code the program or not? Did you know……..
10.Had he clarified the problem before he designed the solution? I doubted…….
11. How do you write programmer documentation? She wondered……
12. Were there any techniques for achieving this? They wondered…
13. Was the author trying out the new graphics package? She asked…
14. How long have you been practising for your exam? My mother wondered…..

13. Turn the following sentences into Reported speech.

1. “How shall I clarify the objectives?” he said. (advice)
2. “You mustn’t make unauthorized copies of software”, she said. (prohibition)
3. “Can I work for only a few days or a week for a company?” he asked him.
4. “You must be interested in your subject”, they added. (obligation)
5. “You may buy books on languages such as C ++”, he said.
6. “You should be able to break down a problem into a number of smaller tasks”, he said to her.
7. “When shall we start our training course?” she asked us. (information)
8. “ How shall I do this?”(advice)
9. “He is an IT manager so he must have a first degree if not a second one”, she said to him. (deduction)
10.“You must upgrade your certification to stay current”, he said. (obligation)

14. Look at the title and say what information the text gives. Read the text attentively for the details.

Computer generations

The first computers (1940-1956) used vacuum tubes for circuitry and magnetic drums for memory. First-generation computers (1940 – 1958) were quite slow by today's standards, performing an average of 39,000 operations per second. They relied on machine language to perform operations, solved one problem at a time. Input was based on punched cards and paper tape, output was displayed on printouts. A typical application during this time was tabulating, or organizing data into tables (that we now term a spreadsheet).

Second-generation computers (1956-1963) based on transistors invented in 1947 by American physicists John Bardeen, Walter Brattain, and William Shockley, moved from cryptic binary machine language to symbolic, or assembly, languages. High-level programming languages (COBOL and FORTRAN) were also being developed at this time. Computers stored their instructions in memory based on magnetic core technology developed in 1948 by An Wang, an engineer at the Harvard Computation Laboratory. The second-generation computers utilized keyboards and video display monitors. It was during this period that the first light pen was used as an input device for drawing on the surface of the monitor. High-speed printers also came into use. Magnetic tape was developed in the early 1950s for audio recording, and was adapted to computers as a storage medium for programs and data. There were also great advances in auxiliary storage, led by the hard disk drive. The most significant application software developed during this time was records management. Computers could process 200,000 instructions per second.

Kilby's development of the integrated circuit was the mark of the third generation (1964-1971) of computers. Transistors were miniaturized and placed on silicon chips called semiconductors. Users interacted with computers through keyboards and monitors and interfaced with an operating system. Many high-level programming languages were developed during the third generation, among them BASIC and Pascal. Two of the most significant applications of the third generation were networking communications and word processing. By 1971, computers were able to process nearly 1 million instructions per second.

The microprocessor brought the fourth generation (1971-1982), as the Intel 4004 chip located all the components of the computer - from the central processing unit and memory to input/output controls - on a single silicon chip. Large-scale integration, a technique for packing more and more circuitry on a single chip, gave us microprocessors as powerful as an entire mainframe computer. The fourth generation brought major advances in second-generation mainframes, in third-generation minicomputers, and added a brand new category of machine: the microcomputer or personal computer. The Internet was developed. GUIs, the mouse and handheld devices were also invented. Fourth-generation languages are commonly used with a database management system program, on all classes of computers. The fourth generation also saw the development of new languages for artificial intelligence, including Prolog. The spreadsheet was a new and original application for the personal computer, as was desktop publishing. By the late 1980s processing speed increased to 4.77 MIPS.

Fifth generation (present and beyond) computing devices, based on artificial intelligence, are still in development, though there are some applications, such as touch screen technology, voice recognition, quantum computation, molecular and nanotechnology that are being used now. Fifth generation computers can process at least 33 million instructions per second or even more. The fifth generation will bring us intelligent interfaces that learn to respond to our personal workstyle

or lifestyle. The goal of fifth-generation computing is to develop devices that respond to natural language input and are capable of learning and self-organization.

15. Express your agreement or disagreement with the following statements.

1). The first generation computers used transistors for circuitry.
2). The second generation computers moved to assembly languages.
3). COBOL and FORTRAN are high-level programming languages.
4). Users interacted with the third generation computers by means of keyboards and monitors.
5). The fourth generation computers was marked by the placing all computer elements on a single chip.
6). The fifth generation computing devices are based on artificial intelligence.

16. Complete the following sentences according to the text.

1). Transistors were invented in 1947 by American physicists ….
2). Magnetic core technology was developed in 1948 by ….
3). Magnetic tape was developed in the early 1950s for ….
4). The mark of the third generation computers development was ….
5). Many high-level programming languages were developed during the ....
6). The fourth generation added a brand new category of machine: ....
7). The goal of fifth-generation computing is ....

17. Ask your groupmates:

1) what they know about the first generation computers;
2) what technology was used for memory and storage in the late 50s;
3) when the hard disk drive was invented;
4) when BASIC and PASCAL were invented;
5) what fifth generation developments are being used now.

18. Characterise each generation according to the following plan:

1) time period;
2) type of computers;
3) circuit technology;
4) memory and storage devices;
5) input / output devices;
6) programming languages;
7) software applications.

19. Choose a device to denote each computer generation. To your mind, what devices is the classification of computer generations based on? Why do some scientists state that there are only 4 computer generations? Express sensible reasons in a logical manner.

Unit 6

Grammar: Conditionals

Oral Topic: Virtual Reality

Lexical and Grammar Exercises

1. Read the following words. Translate the sentences into Russian. Learn the words by heart.

11. **immerse** [ɪ'mɜːs] – *сильно увлекаться, заходить далеко, погрязать*

Related words: immersion [ɪ'mɜːʃ(ə)n] – *погружение (в какое-л. дело), сильное увлечение (чем-л.)*

Total immersion in a videogame is almost like living another life. In order for the virtual reality to be effective, people must feel immersed in it.

12. **manipulate** [mə'nɪpjəleɪt] – умело обращаться; умело управлять (чем-л.)

Related words: manipulation [mə¸nɪpjə'leɪʃ(ə)n] – манипуляция; обращение

Data processing refers to a class of programs that organize and manipulate data, usually large amounts of numeric data. Virtual reality programs let people manipulate objects in that world.

13. **derive** (from) [dɪ'raɪv] – *получать, извлекать; выводить, происходить*

Children derive great pleasure from computer games. Given enough data and enough time, a computer can derive the rules of the game and calculate the best moves without being taught anything.

14. **reflect** [rɪ'flekt] – *отражать, воспроизводить, свидетельствовать (о чём-л.)*

The user's physical actions are immediately and realistically reflected on the computer's display. The structure of the Web site reflects the way the data are structured and maintained in the organization.

15. **controller** [kən'trəulə] – *контроллер; рычаг управления; система управления*

Some programs require people to use special controllers. Audio controller is built into the motherboard and leads to one or two built-in speakers.

16. **sophisticated** [sə'fɪstɪkeɪtɪd] – *сложный, сложно устроенный; современный; продвинутый (о пользователе)*

As computers become more efficient and artificial intelligence programs become more sophisticated, robots will be able to perform more difficult and more humanlike tasks. Page description language (PDL) is a software language used with printers to control sophisticated print jobs.

17. **means** [miːnz] – *способ, метод; возможность*

E-mail has become an increasingly important means of business communication. Information and communication technologies (ICTs) are important means of communication.

18. **feed** [fiːd]**–** *вводить, подавать; снабжать*

This feeds the paper through to the printer. The images are fed over satellite networks to broadcasters throughout the world.

19. **consistent** [kən'sɪst(ə)nt] – *последовательный, стойкий; устойчивый, совместимый, согласующийся*

A color management system is a set of tools that permits consistent and predictable color reproduction. Risk Analysis and Management Methodology was developed with the aim of providing a structured and consistent approach to computer security management for all systems.

20. **rotate** [rəu'teɪt] – *вращаться, вращать; чередоваться*

A trackball is simply a mouse mounted so the ball is rotated with your fingers instead of on the surface of your desk. The operations available within most arithmetic/logic units allow the contents of registers to be moved to the right or the left within the register, these operations are known as either SHIFT or ROTATE operations.

1. ***Match the English word combinations with their Russian equivalents.***

1. flight simulator	a) встроенные правила
2. real-world data	b) ножные педали, педали контроля
3. built-in rules	c) реальные данные
4. alternate reality	d) наушники
5. headphones	e) шлем-дисплей
6. foot pedal	f) авиасимулятор
7. head-mounted display	g) дополнительная/альтернативная реальность
8. manufacturing processes	h) автоматизация проектирования электронных устройств
9. Electronic Design Automation	i) градостроительное проектирование
10. Computer Aided Design	j) обучение анатомии
21.Computer Aided Manufacturing	k) производственные процессы
22.anatomy instruction	l) система автоматизированного производства
23.urban planning	m) компьютерное проектирование

2. . *Give English equivalents for the words in brackets.*

8. She got some books out of the library and _____ (погрузилась) herself in British history and culture.
9. Players _____ (контролируют) characters on the screen using a joystick.
10. Application Programming Interfaces (APIs) are programming tools that provide developers with a simple, _____ (устойчивый) mechanism for extending the functionality of an application.
11. Web sites main function was to provide _____ (возможность) of gathering and sharing information.
12. The software allows you _____ (вращать) images.
13. Although a computer bug is associated with faulty software, the term _____ (получил) its name from the bug found in a computer's mechanical relay, causing it to malfunction.
14. Human attempts to create tools to _____ (управлять) data date back at least as far as 2600 B.C.
15. When the display _____ (контроллер) wants a particular pixel to glow, it opens the address line that leads to that pixel's cell.
16. The fastest processors are limited by how fast memory _____ (подает) them data.
17. The _____ (современные) mobile phones are commonly equipped with PDA-functionalities such as a large screen and easier methods of input.

3. *Replace by one word.*

6. In the context of virtual reality, the term is used to describe the users' emotional reaction to the virtual world in terms of feeling as if they are actually a part of the virtual world.
7. To move or turn around a central fixed point.
8. A device that controls or regulates a machine or part of a machine.
9. To put or push something into or through a machine.
10. Highly complicated or developed.
11. Always behaving or happening in a similar, especially positive, way.
12. To work skilfully with information, systems etc. to achieve the result that you want.

4. ***Fill in the blanks with the word from the active vocabulary.***

16. She _____ herself in her work.
17. The technology uses a pen to _____ a computer.
18. Pixel is _____ from "picture element" – the smallest unit of a computer display.
19. The software grows more _____ over time.
20. The Internet is seen by many as an individual _____ for obtaining or sending information flexibly and efficiently.
21. The microprocessor or central processing unit (CPU) is a tight, complex collection of transistors arranged so that they can be used to _____ data.
22. Position sensors attached to each axis of the joystick respond to the joystick's X-V coordinates and send signals to the game adapter card that the software uses to interpret the position of the game _____.
23. _____ the wheel through 180 degrees.
24. No matter what kind of data you _____ into a computer, the PC ultimately sees it only as numbers, strings of zeros and ones written with transistors in the microchips of your motherboard.
25. The Web site was used as a method of ensuring that communication is kept _____ and constantly available.

5. ***Study the following table. Formulate the rule***

	if-clause	main clause	use
Type 1 Conditionals (real present)	if + any present form	will/can/may/must + bare infinitive Present Simple	true or likely to happen in the present or the future
Type 2 Conditionals (unreal present)	if + Past Simple or Past Continuous	would/could/might + bare infinitive	untrue in the present; used to give advice
Type 3 Conditionals (unreal past)	if + Past Perfect or Past Perfect Continuous	would/could/might + + have + Past Participle	imaginary situation contrary to facts in the past; used to express regrets or criticism
Ex: **If** I **do** this work on a computer, it **will take** me less time. (*true – it's possible*) **If** I **did** this work on a computer, it **would take** me less time. (*untrue in the present*. I don't have a computer.) **If** I **had done** this work on a computer, it **would have taken** me less time. (*imaginary in the past* – I didn't have a computer, so I didn't do this work.)			
In written English after "if" we normally use were instead of was in all persons in type 2 conditionals.			

Ex: **If** I **were** you, I **would send** her an e-mail message.			
We can omit "if". When we omit "if", were and had come before the subject. Ex: **If I were you**, … **Were I you**, … **If we had known**, …**Had we known**, …			
All types of conditionals can be **mixed**. Any tense combination is possible if the context permits it.			
	If-clause	**main** clause	
Type 2	**If** they **were playing** all day, (they were playing all day)	they **will be tired** out now. (so they are tired out now)	Type 1
Type 2	**If** I **were** you, (you are not me)	I **would have invited** her. (so you didn't invite her)	Type 3
Type 3	**If** you **had saved** money, (you didn't save money)	you **would be going** on holiday. (so you are not going on holiday)	Type 2

6. Choose the correct item (if-clause):

1. If he … the program, it will run properly.
1) will debug 2) debugs 3) debug 4) would debug
2. If we … the system analyst, he will help to facilitate the process.
1) invites 2) invite 3) will invite 4) would invite
3. If he … the conference on Cybernetic Analyses, he will learn about large-scale computers.
1) attend 2) will attend 3) would attend 4) attends
4. If they … this equipment, they will run their affairs more effectively.
1) will use 2) use 3) uses 4) would use
5. If you … a programmer, you will open up the computer world.
1) becomes 2) become 3) will become 4) would become
6. Supposing something … wrong, the computer operator will signal you.
1) goes 2) will go 3) would go 4) go
7. If you … access to Internet, you would do this work easily.
1) have 2) had 3) will have 4) would have

7. Fill in the appropriate type of the Conditional in main clause.

1. If you follow his explanations, you … a good system analyst.
1) will become 2) became 3) would become 4) become
2. If you record this information on a floppy disk, you … to use it easily.
1) are able 2) would be able 3) were able 4) will be able
3. If I were you, I … English better.
1) learn 2) would learn 3) will learn 4) learned
4. If you had studied better, you … the University.
1) entered 2) would entered 3) had entered 4) would have entered
5. If she had had better knowledge of maths, she … that problem.
1) can solve 2) could solve 3) will be able to solve 4) could have solved
6. If he had known the results beforehand, he … the research.
1) never started 2)has never started 3)would never started 4) would have never started
7. If the cable fails, the whole network …
1) fails 2) would fail 3) will fail 4) failed

8. Complete the gaps in this dialogue with will or would where appropriate.

A – What 1) _____ you do when you finish your diploma?

B – I 2) _____ like to take a course in multimedia.
A – How long 3) _____ that take?
B – If I choose the certificate, it 4_____ take 6 months, but if I choose the master's, it 5) _____ take a full year.
A – What 6) _____ be the advantage of the master's?
B – I guess I 7) _____ have better job prospects.
A – When 8) _____ you decide?
B – It depends on my finals. If I do well, I 9) _____ go for the master's.

9. Put the verbs in brackets in the correct form.

1. If people _____ (to see) that they can make money from Internet, commercial use of it _____ (to increase).
2. If you _____ to send) an e-mail message, it _____ (to travel) through many different networks and computers.
3. If he _____ (to debug) the program, it _____ (to run) properly.
4. If we _____ (to invite) the systems analyst, he _____ (to help) to facilitate the process.
5. If you _____ (to learn) about interactive information processing, you _____ (to understand) learning information systems.
6. If commercial users _____ (to communicate) over Internet, they _____ (to do) it very cheaply.
7. Unless there _____ (to be) a good reason for it, people _____ (not to want) to change because computers already do most things they want.
8. If you just _____ (to hit) Enter, that _____ (to activate) the program.
9. If you _____ (to bring) your cursor down to the very bottom, you _____ (to find) the Start button.
10. If virtual reality technology _____ (to be) more affordable at present time, many people _____ (to be able) to try it.
11. If you (bring) _____ your digital video camera, we can make a movie on my PC.
12. You won't be able to play those video files if you _____ (not have) the correct plug-in.
13. If the marketing manager _____ (have) PowerPoint, she could have made more effective presentations.
14. If I could afford it, I _____ (buy) a new game console.
15. If I had the money, I _____ (invest) in some new multimedia software.

10. *Rewrite the following omitting "if".*

1. If you have a virus, it will corrupt your files.
Ex.: Should you have a virus, it will corrupt your files.
2. If you have chosen a complex password, nobody would have accessed your files.
3. If I were you, I would back up my files regularly not to lose them.
4. If you give your files meaningful names, you won't forget what they contain.
5. If you switch on Caps Lock, you'll get all capital letters.

11. Paraphrase the following using "unless". Remember that after "unless" the verb is never negative.

1. If you don't use the right password, you won't get access to the network.
2. A computer cannot do anything if a person doesn't tell it what to do.
3. A computer can't store or handle any data if it doesn't receive information to do so.
4. The copying process doesn't begin if the OK button isn't clicked.
5. You cannot save a file if you don't name it.

12. *Link these statements using the appropriate type of Conditionals.*

1. You place a floppy disk near a magnet. You destroy the data.
2. You store data in RAM. It is not lost when you switch off.
3. You input the wrong password. You don't have access to the network.
4. You moved a CD-ROM drive with the disk in place. You damaged the drive.
5. There was a memory fault. The computer hang.
6. You use a faster modem. It runs faster.

13. *Describe the effects of these actions. Link these pairs using if-sentences.*

1. There was a power cut while you were using your computer. You lost all the data.
2. You install a faster processor. The computer runs faster.
3. You forgot your password. You didn't get access to the network.
4. You press the "delete" key. You delete the data.
5. You use power-saving options. You save computer resources.
6. You have a virus. It corrupts your files.

14. *Match the parts of the sentences, using different types of conditionals.*

1. you press Print Screen	a. you would find more relevant results
2. you added more memory	b. you would be able to connect to a telephone line
3. you installed a modem	c. it would speed up the computer
4. you used a better search engine	d. you may lose data
5. you forget to save regularly	e. you would have more space at your disk
6. you used an LCD display	f. you can make a copy of the screen

15. There is one mistake in each of the following sentences. Find and correct it.

1. If virtual reality technology would be more affordable at present time, many people would be able to try it.
2. Company executives are afraid of the bad publicity that would result if the public would find out that their computer had been misused.
3. If I had to make a choice, my favorite site will have to be the Internet Movie Database.
4. If I am you, I would work on this design more thoroughly.
5. I can hardly keep my eyes open. If I went to bed earlier last night, I wouldn't be so tired now.

16. *Study the following table. Formulate the rule*

Wishes		
	FORM	USE
I wish (if only)	+ past simple/past continuos	wish/regret about the present

(wish/regret about the present)		(situation we want to be different)
I wish (if only) (regret about the past)	+ past perfect	regret that something happened or didn't happen in the past
I wish (if only) (impossible wish for a future change)	+ subject + would + bare infinitive (*wish* and *would* should have different subjects)	wish for a future change unlikely to happen; wish to express dissatisfaction; polite request implying dissatisfaction or lack of hope

After "I wish" we can use "were" instead of "was" for all persons.
"If only" means the same as "I wish" but it is more dramatic.
Ex.:
I **wish** you **worked** more efficiently. (It's a pity you don't do it.)
I **wish** I **could have** such a computer. (But I don't have it.)
I **wish** I **had attended** the seminar last Monday. (But I didn't.)
I **wish** he **would drive** more carefully. (But I don't think he will.– wish for a future change unlikely to happen.)
I **wish** it **would stop** raining. (But I'm afraid it won't stop raining.– wish implying disappointment or lack of hope)

More about the Subjunctive Mood

	FORM	**USE**
it is necessary **it is required** **it is demanded**	that you + (should) + bare infinitive	supposition necessity probability requirements order purpose advice
I suggest/ insist/ propose/ recommend/ demand/ request	that they (should) + bare infinitive	
as if/ as though	+ past simple/ past continuous/ past perfect/ past perfect continuous	action contrary to reality
in order that …/so that …/ that …/ lest …	+ (should, might, could, may) + bare infinitive	actions and states: problematic, not necessarily contradicting reality
it is time/ it is high time	+ past simple/ past continuous	imaginary actions
whatever (happens…) **no matter (what … who)** **I don't care (when)**	+ present tenses	

Ex:
It is necessary *that he* ***read/should read*** *it.*
We ***insist*** *that she* ***study/should study*** *better.*
He ***talks as if*** *he* ***were*** *sick.*
He ***walked as if*** *he* ***had*** *not* ***heard****.*
He ***looked as though*** *he* ***had lost*** *his friend.*
We ***spoke*** *quietly* ***so that*** *he* ***might work*** *in peace.*
Write *down all these words* ***lest*** *you* ***should forget*** *them.*
It's time *we* ***were going****.*
It's high time *you* ***finished*** *developing our app.*
Whatever *happens,* ***I'll accept*** *it.*
No matter *what you say, I* ***won't listen****.*
I don't ***care*** *when they* ***show up****.*

17. Fill in: if, as if, that, provided, lest, so that.

1. I hope the weather is fine tomorrow. It looks _____ were going to rain.
2. _____ the distance between the two points be the same, no further experiments will be necessary.
3. He suggested _____ the question be discussed at the next meeting.
4. He might have done the work quite easily, _____ he had prepared the material beforehand.
5. It's better to take the taxi _____ we should miss the train.
6. _____ you see him, ask him to come.
7. I wrote down the figures _____ I should forget them.
8. Speak louder _____ everyone could follow you.
9. Make haste _____ you should be late.
10. It is necessary _____ this law should be observed.

18. Open the brackets:

1. I wish I _____ (not be) so busy.
2. He demands that the question _____ (be discussed) at tomorrow's meeting.
3. But for the train we _____ (join) you.
4. He passed by as though he _____ (not recognize) me.
5. I wish you _____ (hear) it before.
6. He looked as if he _____ (spend) all night studying.
7. If only I _____ (have) plenty of time for reading this article, but I have only five minutes.
8. He talks as if he _____ (live) in England for many years.
9. I wrote several versions of this program. It is high time I _____ (stop) this work.
10. I wish I _____ (work) hard during the term.
11. The delegates proposed that the resolution _____ (be discussed) at once.
12. It is necessary that the report _____ (be done) in time.
13. I wish he _____ (not be) so impolite.

19. *Complete the sentences:*

1. You would know English better if ….
2. Should I see him ….
3. Suppose you are a first-year student ….
4. I'll dictate you slowly lest you ….
5. It seems as if ….
6. The app looks as if ….
7. If he had had an admittance….
8. It's probable that the question ….
9. If I had known this, I ….
10. On condition one knows this law ….
11. I'm not going to reveal the code unless ….
12. But for our advice ….

20. ***Before reading the text, answer the following questions. This kind of information is well known and you'll easily deal with them:*** *What is virtual reality? What devices are used to support it? What are the application areas of virtual reality*

apps?

Virtual reality

Flight simulators are perfect examples of programs that create a virtual reality, or a computer-generated “reality” in which the user does not merely watch but is able to participate. The user supplies input to the system by pushing buttons or moving a yoke or joystick, and the computer uses real-world data to determine the results of those actions. For example, if the user pulls back on the flight simulator's yoke, the computer translates the action according to built-in rules derived from the performance of a real airplane. The monitor shows exactly what an airplane's viewscreen would show as it began to climb. If the user continues to instruct the “virtual plane” to climb without increasing the throttle, it will “stall” (as would a real plane) and the “pilot” will lose control. Thus the user's physical actions are immediately and realistically reflected on the computer's display.

VR programs give users three essential capabilities—immersion, navigation, and manipulation. In order for the alternate reality to be effective, people must feel immersed in it, not merely as if they are viewing it on a screen. To this end, some programs require people to wear headphones or 3-D glasses or to use special controllers or foot pedals. The most sophisticated means of immersing users in a VR program is through the use of head-mounted displays, helmets that feed slightly different images to either eye and that move the computer image in the direction that the user moves his or her head.

VR programs also create a world through which one can navigate as “realistically” as in the real world. For example, a street scene will always show the same doors and windows, which, though their perspective may change, is always absolutely consistent internally. The most important aspect of a VR program is its ability to let people manipulate objects in that world. Pressing a button may fire a gun, holding down a key may increase a plane's speed, clicking a mouse may open a door, or pressing arrow keys may rotate an object.

VR can serve to new product design, helping as a tool for engineering in manufacturing processes. Among other examples, we may also mention EDA (Electronic Design Automation), CAD5 (Computer Aided Design), and CAM (Computer Aided Manufacturing). Beyond modeling assembly parts, 3D computer graphics and VR techniques are currently used in the research and development of medical devices for innovative therapies, treatments, patient monitoring. VR also finds application into health care professionals training from anatomy instruction to surgery simulation. 3DVirtual reality simulation is becoming widely used for urban planning and transport projects. Architects use this technology to create virtual designs of buildings. Dramatic improvements in the field of VR are taken place due to the extensive research and usage of VR in the military applications where they are applied almost for flight simulations or combat training.

21. ***Express your agreement or disagreement with the following statements.***

- In flight simulators, the computer uses real-world data to determine the results of the user’s input actions.
- VR programs give users three essential capabilities—immersion, navigation, and manipulation.
- The most sophisticated means of immersing users in a VR program is through the use of 3 - D glasses.
- The most important aspect of a VR program is its ability to let people view objects in that world.
- VR has many areas of application including manufacture, design, health care, etc.

22. ***. Complete the following sentences according to the text.***

1. A flight simulator is a system that allows….
2. VR programs have the following capabilities: ….
3. Users are immersed in a VR program through the use of ….
4. The most important aspect of a VR program is ….
5. VR can be used for many applications besides gaming ….

23. Ask your groupmates:

8. what virtual reality is;
9. what rules the computer uses to determine the results of users' actions in flight simulator;
10. what devices help immerse users into VR;
11. what techniques developers use to create a world through which one navigates as "realistic" as possible;
12. what application areas of VR are mentioned in the text.

24. **Make a presentation describing a virtual reality device or an application.**

Don't foget to mention these points:

13. general information;
14. specifications;
15. areas of application;
16. performance parameters;
17. special features.

Use the following links to help you: http://www.vrealities.com/, http://vrlab.epfl.ch/.

ЗАДАНИЯ ДЛЯ АУДИТОРНОЙ РАБОТЫ СТУДЕНТОВ

ФРАНЦУЗСКИЙ ЯЗЫК

1.1. UNE NOUVELLE ÉTAPE DANS MA VIE

I. Retenez les mots suivants:

1. âgé,-e	*1. – пожилой, -ая*
2. aîné,-e	*2. – старший, -ая*
3. beau-frère (m)	*3. – шурин, деверь, зять, свояк*
4. beau-père (m)	*4. – тесть, свекор, отчим*
5. belle-mère (f)	*5. – теща, свекровь, мачеха*
6. belle-soeur (f)	*6. – свояченица, золовка, невестка*
7. bru (f)	*7. – невестка, сноха*
8. «bûcher»	*8. – «зубрить», корпеть*
9. bureau (m)	*9. – бюро, контора, отдел*
10. cadet,-te	*10. – младший, -ая*
11. cours (m, pl)	*11. – лекции, занятия*
12. créateur,-trîce	*12. – творческий, созидательный*
13. enfant (m, f)	*13. – ребёнок*
14. être bien dessiné, -e	*14. – быть хорошо очерченным*
15. être en première année	*15. – быть (учиться) на первом курсе*
16. être en retraite	*16. – быть на пенсии*
17. être fort (-e) en qch	*17. – быть сильным в чём-либо*
18. être marié,-e	*18. – быть женатым, быть замужем*
19. femme (f)	*19. – женщина, жена*
20. fille (f)	*20. – дочь*
21. fils (m)	*21. – сын*
22. fréquenter	*22. – посещать*
23. gâter	*23. – портить*
24. gendre (m)	*24. – зять*
25. grand-mère (f)	*25. – бабушка*
26. grand-père (m)	*26. – дедушка*
27. grands-parents (m, pl)	*27. – дедушка и бабушка*
28. hardi ,-e	*28. – смелый, отважный*
29. haute (petite, moyenne) taille (f)	*29. – высокий (маленький, средний) рост*
30. interdiction (f)	*30. – запрет*
31. mari (m)	*31. – муж*
32. nièce (f)	*32. – племянница*
33. oncle (m)	*33. – дядя*
34. parent,-e (m, f)	*34. – родственник, родственница*
35. parents (m,pl)	*35. – родители, предки*
36. passer son enfance	*36. – проводить своё детство*
37. petite-fille (f)	*37. – внучка*
38. rattraper	*38. – навёрстывать*
39. responsable	*39. – ответственный, -ая*
40. ressembler à qn	*40. – быть похожим на кого-то*
41. robuste	*41. – крепкий, сильный*

42. se sentir	*42. – чувствовать себя*
43. soeur (f)	*43. – сестра*
44. svelte	*44. – стройный, гибкий*
45. tante (f)	*45. – тётя*
46. temps (m) perdu	*46. – упущенное, утраченное время*
47. travaux (m, pl) pratiques	*47. – практические занятия*

II. Traduisez les mots suivants et retenez-les:

faire connaissance avec qn
faire la connaissance de qn
faire venir l'eau à la bouche
analyste-programmeur (m)
charpentier (m)
chef de chantier (m)
contremaître (m)
dessinateur (m), dessinatrice (f)
étudiant (m), étudiante (f)
maçon (m
plâtrier (m)
plombier (m)

III. Lisez et traduisez ce texte:

Une nouvelle étape de ma vie

Cette année je suis entré à l'université technique à Brest. J'ai choisi la faculté du bâtiment. Il y a quelques mois une nouvelle étape dans ma vie a commencé. Adieu mon école, adieu mes amis... Maintenant je suis étudiant, je suis étudiant en bâtiment. C'est bien d'être étudiant. C'est moi, Pierre Choumski, qui vous le dis.

D'abord, parce qu'on se sent enfin libre.

Je parle, évidemment, pour ceux qui n'ont pas d'université dans leur ville, et qui sont obligés de quitter leur famille pour vivre dans la ville où se trouve leur Ecole supérieure: plus de conseils à recevoir, plus d'interdictions, plus d'explications à donner. Je ne veux pas dire que mes parents étaient trop sévères avec moi, non. Au contraire, c'est avec une grande tendresse que je me rappelle de ma famille qui est restée dans ma ville natale. Ma famille est grande et unie. Je voudrais vous présenter tous les membres de ma famille.

Faisons connaissance. Commençons par moi. Je m'appelle Pierre Choumski. J'ai 19 (dix-neuf) ans. Je suis de haute taille, 1,90 m (un mètre quatre-vingt dix centimètres), svelte, robuste, sportif. J'ai les cheveux blonds coupés court, les yeux bleus. Mon visage est ovale, la bouche est bien dessinée et seulement mon nez me gâte un peu, il est assez long. Je ressemble à mon père. Je suis né le 26 juillet 20... . Mon signe du zodiaque est Lion. Lion est ambitieux, il n'aime pas être critiqué, il semble très sûr de lui. Quant à moi, je sais qu'il faut être entreprenant pour réussir dans la vie. Je fais mes études à la faculté du Bâtiment, je suis en première année, je veux être ingénieur comme mon père. Je ne suis pas enfant unique dans la famille.

Notre famille est nombreuse, elle comprend mon père, ma mère, ma soeur aînée, ma soeur cadette, mon frère cadet et moi. Les grands-parents paternels habitent aussi avec nous. Ils sont assez âgés: mon grand-père a 90 (quatre-vingt-dix) ans, ma grand-mère a 78 (soixante-dix-huit) ans. Ils ne travaillent plus. Ils sont en retraite. Mon père

est un homme de 50 (cinquante) ans. Ma mère a 45 (quarante-cinq) ans. Ma soeur aînée Nina âgée de 24 (vingt-quatre) ans est mariée. Elle a terminé la faculté du Génie Civil et travaille maintenant comme dessinatrice dans un bureau d'études. Son mari Victor, mon beau-frère, qui est plus âgé que sa femme de 6 (six) ans est architecte au même bureau. Il est une personne créatrice qui dresse toujours des projets intéressants et hardis. Nina et Victor ont une fille. C'est ma nièce. Elle s'appelle Nadine. C'est une fillette de trois ans, très charmante, bavarde et assez coquette pour son âge. Nous sommes tous membres d'une famille de constructeurs. Mon grand-père, autrefois maçon, puis contremaître, discute des heures durant avec Victor de nouvelles méthodes de construction dans le Bâtiment. Mon père qui a terminé l'Ecole supérieure des Ingénieurs du Bâtiment et des Travaux publics travaille comme chef de chantier. Il aime sa profession et par ses conseils pleins d'expérience il aide le jeune chef de travaux et les jeunes ouvriers: charpentiers, plombiers, plâtriers, maçons...

Ma mère est aussi ingénieur et travaille dans le système de distribution d'eau de notre ville. Son travail est très sérieux et responsable. A la maison ma mère aime cuisiner. Notre mère et notre grand-mère, sa belle-mère, elles sont de bonnes cuisinières. Quand je me souviens des plats qu'elles préparent, cela me fait venir l'eau à la bouche.

Il me reste encore de présenter mon frère cadet et ma soeur cadette. Mon frère cadet Oleg fait ses études en 10-ième. Il est un bon élève, il est fort en mathématiques et en informatique. Il veut entrer à la faculté des systèmes d'informations électroniques et devenir analyste-programmeur. Ma soeur cadette Olga n'a que 15 (quinze) ans. Elle est une écolière capable, très appliquée. Elle fréquente aussi l'école musicale et joue du piano. Olga lit beaucoup et s'intéresse à la littérature et à l'histoire. C'est une belle jeune fille très vive, très énergique aux yeux marron, aux cheveux châtain clair. Elle est tout le portrait de notre mère.

J'ai beaucoup de tantes, d'oncles, de cousines et de cousins. Tous nos parents aiment venir chez nous et nous aimons les accueillir.

Les premiers mois de mes études à l'université il me manquait de mes proches. Quand j'étais au lycée, mes parents m'aidaient toujours à résoudre mes problèmes quotidiens et maintenant je dois organiser ma journée de travail moi-même. Je peux passer la nuit entière à discuter avec des amis, puis dormir jusqu'à midi le lendemain, et personne ne me dit rien. Je peux aller au cinéma tous les jours pendant une semaine et ne pas toucher un livre, puis m'enfermer dans ma chambre et "bûcher" comme un fou pour rattraper le temps perdu. Jamais on ne me laisserait faire ça à la maison!

C'est merveilleux d'être libre! Libre d'aller au cours ou ne pas y aller (tant pis pour moi). Comme nous sommes au moins cinq cents dans un ampfithéâtre, le professeur ne s'occupe jamais de savoir qui est absent. Seuls les travaux pratiques sont obligatoires et contrôlés parce que nous travaillons par petits groupes.

J'aime bien les travaux pratiques: je ne les ai manqués qu'une fois depuis le début de l'année. Les cours, je les ai manqués assez souvent pendant le premier semestre, mais pas après. J'ai compris assez vite que c'était difficile et ennuyeux de recopier les notes des copains et qu'il valait mieux travailler régulièrement que «bûcher» jour et nuit quinze jours avant l'examen. J'ai déjà bien compris que les années d'études m'apprendraient à travailler dur, à être plus sérieux et ce qui est le plus important à être plus responsable. Je comprends que ma responsabilité n'est pas énorme, bien sûr, puisqu'elle ne concerne que mon examen de première année, mais je ne peux la partager avec personne. Des années durant j'aurai plus de choses à faire et alors ma resposabilité

augmentera. Mais j'y suis prêt.

IV. Poser 10 questions au sujet du texte et répondez-y.

V. Etablissez le degré de parenté entre les personnages du texte:

- Qui est Pierre pour ses parents?
- Nina et Olga qui sont-elles pour leurs parents?
- Nina et Olga qui sont-elles pour Pierre et pour Oleg?
- Pierre et Oleg qui sont ils pour Nina et Olga?
- Qui est Nina pour Victor?
- Qui est Victor pour Nina?
- Est-ce que les parents de Pierre ont un gendre? une bru?
- Les parents de Nina qui sont-ils pour Victor?
- Les parents de Pierre qui sont-ils pour Nadine?
- Nadine qui est-elle pour les parents de Pierre?
- Nadine qui est-elle pour Pierre?
- Les grands-parents de Pierre qui sont-ils pour Nadine?

VI. Choisissez les phrases qui sont conformes au texte:

1. Il y a un mois Pierre est devenu étudiant de l'université technique à Brest.
2. Oleg a 19 ans et fait ses études en 10-ième.
3. Victor a fait son service militaire il y a 2 ans.
4. Pierre a 19 ans, cette année il a terminé l'école secondaire et est entré à l'université technique.
5. Quant à Oleg il sait qu'il faut être entreprenant pour réussir dans la vie.
6. La mère et la grand-mère de Pierre aiment cuisiner.
7. Nina est mariée, elle est plus jeune que son mari de 6 ans.
8. Olga lit beaucoup et s'intéresse à la littérature et à l'histoire.
9. Pierre voudrait que ses parents l'aident toujours à résoudre ses problèmes et à organiser sa journée.
10. Quand Pierre était au lycée, il pouvait passer la nuit entière à discuter avec des amis, dormir jusqu'à midi le lendemain et ne pas toucher un livre pendant une semaine.
11. C'était difficile et ennuyeux de fréquenter tous les travaux pratiques et toutes les conférences, d'être toujours présent.
12. Les années d'études à l'université aident à devenir plus sérieux et plus responsable, on apprend à travailler dur.

VII. Trouvez les équivalents français des signes du zodiaque, donnez la caractéristique du vôtre:

Овен	Sagittaire	Весы	Verseau
Телец	Lion	Скорпион	Scorpion
Близнецы	Poissons	Стрелец	Cancer
Рак	Bélier	Козерог	Taureau
Лев	Vierge	Водолей	Capricorne
Дева	Balance	Рыбы	Gémeaux

VIII. Devinez de qui il s'agit. Utilisez quelques clichés donnés ci-dessous:

quant à moi; à mon avis; je suppose; on peut supposer;

je pense; je ne pense pas que ce soit...;

je crois; je crois même; je suis sûr; il s'agit de;

a) aux cheveux bouclés, petite, coquette, bavarde, vive, aimée de toute la famille, enfant unique chez ses parents;

b) de haute taille, aux cheveux sel et poivre, porte la moustache tombante, maigre, énergique, s'intéresse aux nouvelles méthodes de construction, autrefois maçon;

c) assez jeune, très sympatique, svelte, aux cheveux longs, habillée à la mode, s'occupe de son mari et de sa fille;

d) de haute taille, aux cheveux courts, sportif, énergique, maximaliste, passe des heures durant devant l'ordinateur;

IX. Traduisez du russe en français:

1. В этом году я поступил в технический университет, теперь я – студент строительного факультета.
2. Я могу не притрагиваться к книге в течение недели, а потом «корпеть» как сумасшедший в своей комнате, чтобы наверстать упущенное время.
3. Я очень люблю практические занятия, я пропустил их только один раз: лучше работать регулярно, чем «зубрить» день и ночь перед экзаменом.
4. Я хорошо понимаю, что с годами у меня будет прибавляться всё больше дел, и, следовательно, моя ответственность будет возрастать.
5. Я вам сейчас представлю моего друга: его зовут Пьер.
6. У Пьера многочисленная семья: у него две сестры и один брат.
7. Его отец – инженер-строитель, в течение многих лет он руководит крупной стройкой.
8. Племяннице Пьера 3 года, она ещё маленькая, очень симпатичная и кокетливая.
9. Бабушка очень любит свою семью – детей, внуков и правнучку – и готовит для них вкусные блюда.
10. Дедушка и Виктор обсуждают часами современные методы строительства.

X. Répondez aux questions ci-dessous:

1. Comment vous appelez-vous?
2. Quel âge avez-vous?
3. Quand et où êtes-vous né(e)?
4. D'où venez-vous?
5. Votre famille est-elle nombreuse? Combien êtes-vous dans votre famille?
6. Comment s'appellent vos proches?
7. Qui est votre père?
8. Où travaille votre mère?
9. A qui ressemblez-vous?
10. Avez-vous vos grands-parents paternels et maternels? Où habitent-ils?
11. Donnez le portrait physique d'un des membres de la famille.
12. Quelles qualités morales vous attirent?
13. Avez-vous beaucoup de tantes, d'oncles, de cousines et de cousins? Allez-vous les voir souvent?

14. Où faites-vous vos études?
15. Savez-vous organiser vous-même votre journée de travail?
16. Est-ce difficile de vivre loin de votre famille?
17. Comment profitez-vous de votre liberté?
18. Manquez-vous souvent vos cours?
19. Avez-vous assez de temps pour travailler régulièrement et pour vous reposer avec vos amis?
20. Etes-vous responsable? En quoi consiste votre responsabilité?

XI. Parlez de votre nouvelle étape de la vie.

1.2. UNIVERSITÉ TECHNIQUE D'ÉTAT À BREST

I. Faites attention à la pronociation des mots suivants:

examen (m) [ɛgzamé], intellect (m) [étɛllɛkt], audit (m) odit], marketing [marketiŋ], comptabilité (f) [kõtabilite], processus (m) [prosesys], secondaire [səgõdɛ:r]

II. Retenez les mots suivants:

1. assurer	*1. обеспечивать*
2. autrefois	*2. когда-то, прежде*
3. bâtiment (m)	*3. здание; стройка; строительство*
4. biens (m pl) immobiliers	*4. недвижимость*
5. bonification (f)	*5. мелиорация, улучшение*
6. bourse (f) d'Etat	*6. государственная стипендия*
7. construction (f)	*7. сооружение; строительство*
8. constructions (f pl) mécaniques	*8. машиностроение*
9. corps (m) enseignant	*9. преподавательский состав*
10. cours (m), cours(m pl).	*10. лекция, урок; (pl) курсы*
11. cours (m pl) à plein temps	*11. дневное отделение*
12. cours (m pl) du soir	*12. вечернее отделение (факультет)*
13. cours (m pl) par correspondance	*13. заочное отделение (факультет)*
14. diriger	*14. руководить*
15. distribution (f) d'eau	*15. водоснабжение*
16. domaine (m)	*16. область, сфера*
17. droit (m)	*17. право*
18. enseignement (m)	*18. обучение, образование*
19. entreprise (f)	*19. предприятие*
20. entrer à; entrer dans	*20. поступать; входить*
21. être à la charge de	*21. быть на иждивении, на обеспечении*
22. être à la tête de	*22. быть во главе, возглавлять*
23. être destiné à	*23. быть предназначенным для*
24. être sanctionné par	*24. быть подтвержденным*
25. examen (m) de concours, examen (m) d'entrée	*25. вступительный экзамен*
26. génie (m) civil	*26. гражданское строительство*
27. géométrie (f) descriptive	*27. начертательная геометрия*
28. gens (f pl)	*28. люди*
29. gestion (f)	*29. управление*

30. joindre l'utile à l'agréable	*30. сочетать полезное с приятным*
31. maintenant	*31. теперь, сейчас*
32. maintenir	*32. поддерживать*
33. matériaux (m pl) de construction	*33. строительные материалы*
34. obligatoire	*34. обязательный*
35. occidental,-e	*35. западный*
36. passer	*36. проходить; проводить; сдавать (экзамен)*
37. plomberie (f)	*37. сантехнические (слесарно-водопроводные) работы*
38. préparer	*38. готовить*
39. presque	*39. почти*
40. recevoir	*40. получать*
41. réussir	*41. удаваться; успешно сдать*
42. secondaire	*42. второстепенный; средний*

III. Traduisez les mots et les groupements de mots suivants, retenez-les.

lycée (m), gymnase (f), exploitation (f) des automobiles, système (m), finance (f), crédit (m), information (f), docteur (m) ès science, docteur-ingénieur (m), docteur (m) ès sciences agricoles, docteur (m) ès lettres, docteur (m) en droit, docteur (m) en médecine, docteur (m) en biologie

IV. Traduisez les mots suivants et trouvez leurs synonymes dans le texte:

raison (f); appeler; depuis; à présent; l'examen d'entrée; être géré par; matière (f); maintenir; finir; créer; internat (m)

V. Lisez et traduisez le texte suivant:

L' Université Technique d'Etat à Brest

On sait que l'enseignement aide à former la personnalité et prépare les gens à la vie. Ainsi le système d'enseignement se présente comme un aspect très important de la politique nationale de chaque pays. Chez nous le droit de l'enseignement est assuré par la Constitution. Ce droit est soutenu par le système développé de l'enseignement secondaire obligatoire, de l'enseigne-ment professionnel secondaire et de l'enseignement supérieur à plein temps, de l'enseignement par correspondance (à distance) et par le système des cours préparatoires. Il existe la pratique des bourses d'Etat pour les meilleurs étudiants.

Ayant terminé les études secondaires – école secondaire, lycée, gymnase, école professionnelle – les jeunes gens passent leurs examens de concours et des tests pour entrer dans un des établissements d'enseignement supérieur. On y prépare des spécialistes dans plusieurs domaines. Actuellement le système de l'enseignement supérieur est en cours de réformation. Ces réformes sont nécessaires car autrefois les établissements de l'enseignement supérieur étaient entièrement à la charge de l'Etat. Maintenant chez nous, il existe des cours gratuits et des cours payants qui aident à organiser un nouveau mécanisme financier de chaque établissement supérieur. Les études sont normalement sanctionnées par la délivrance d'un diplôme officiel.

L'Université technique de l'Etat à Brest fait une partie intégrante du système d'enseignement supérieur de notre pays. L'Université technique est le plus grand centre d'enseignement supérieur dans la région occidentale de notre République. Elle forme de

nombreux jeunes ingénieurs pour les domaines de l'économie nationale tels que bâtiment, architecture, constructions mécaniques, expertise des biens immobiliers, bonification, distribution d'eau, informatique, microéconomie, macroéconomie, comptabilité et d'autres.

Notre Université a été fondée le 1-er avril 1966 comme l'Ecole Supérieure des ingénieurs du Bâtiment et des Travaux Publics et formait des ingénieurs pour la construction industrielle, civile et agricole ainsi que des spécialistes de bonification et de plomberie. A cette époque 330 étudiants du cours à plein temps et 110 étudiants du cours du soir faisaient leurs études à l'Ecole, 32 enseignants y travaillaient. Deux ans plus tard on a ouvert le cours par correspondance. Depuis cette période le corps enseignant et la quantité d'étudiants augmentaient et maintenant le corps einseignant comprend plus de 600 personnes et plus de 5.000 étudiants y font leurs études.

En 1985 on a ouvert une nouvelle faculté celle des constructions mécaniques. Cela est devenu la cause d'appeler notre Ecole autrement. En 1990 elle a été nommée l'Ecole Polytechnique. A partir de cette date l'Ecole Polytechnique a multiplié la quantité de ses spécialités et dès l'an 2000 elle s'appelle l'Université technique de l'Etat. Maintenant l'Université forme des spécialistes pour plusieurs secteurs de l'industrie et de la science.

L'Université a 5 facultés: la faculté d'architecture et de construction, la faculté des systèmes d'ingénierie et d'écologie, la faculté des constructions mécaniques, la faculté des systèmes d'informations électroniques, la faculté d'économie. Il y a aussi les cours préparatoires pour des impétrants qui veulent entrer à l'Ecole.

Pendant les deux premières années d'études à l'Université les étudiants reçoivent la formation de base. On apprend les mathématiques supérieures, la physique, la chimie, la géometrie descriptive, les sciences sociales, la langue biélorusse et une langue étrangère. Dès la deuxième année on commence à étudier les disciplines spécialisées: résistance des matériaux, matériaux de construction, géodésie, architecture, métaux et leurs alliages, comptabilité, finances et crédit, économie mondiale, gestion de l'entreprise, exploitation des automobiles, traitement des métaux et d'autres.

L'Université est dirigée par le recteur. A la tête de chaque faculté est le doyen. Les chaires de l'Université sont dirigées par des docteurs ès sciences ou par des candidats ès sciences. Plus de 140 candidats ès sciences et plus de 10 docteurs ès sciences travaillent à l'Université.

Les étudiants ont toutes les possibilités d'y bien travailler et de se reposer. A l'Université il y a une grande bibliothèque riche en manuels, en oeuvres techniques et économiques, il y a deux salles de lecture. L'Université comprend quelques bâtiments à quatre étages où il y a beaucoup de salles de conférence, de salles d'études, de cabinets spéciaux et de laboratoires modernes équipés d'ordinateurs. L'administration de l'Université se trouve au premier étage du bâtiment principal.

Non loin de l'Université on peut trouver 4 foyers où habitent les étudiants venus de tous les coins de notre République et de l'étranger.

Pour les loisirs des étudiants il existe quelques sections sportives, on organise souvent des soirées et des discothèques. Beaucoup d'étudiants adhèrent à l'organisation syndicale d'étudiants et à l'Organisation républicaine de la jeunesse biélorusse.

On fait ses études au cours de 4 ou 5 années. Ces années sont intéressantes où on peut joindre l'utile à l'agréable.

VI. Posez 10 questions sur le contenu du texte.

VII. Dans le texte trouvez les équivalents des mots et des expressions russes donnés ci-dessous:

известно; у нас; существует; государственная стипендия; находиться в процессе реформирования; представлять неотъемлемую часть; оборудованные компьютерами; недалеко от; студенческий профсоюз; Белорусский республиканский союз молодежи.

VIII. Complétez les phrases:

1. En avril 1966 a été fondée ...
2. ... elle a été nommée l'Ecole Polytechnique.
3. Dès l'an 2000 elle s'appelle ...
4. Pour entrer à l'Université il faut ...
5. A l'Université il existe 6 facultés: ...
6. ... les étudiants reçoivent la formation de base.
7. On apprend ...
8. Les étudiants de l'Université ont toutes les possibilités pour ...
9. Non loin de l'Université se trouvent 4 foyers où ...
10. Les années d'études à l'Université sont ...

IX. Composez les phrases des mots donnés:

1. par, et assuré, le système, à notre, d'enseignement, est , développé, République, bien, la constitution.
2. les études, les jeunes gens, passent, dans, secondaires, des tests, un établissement, ayant terminé, et, les jeunes filles, supérieur, des examens de concours, et entrent, de l'enseignement.
3. est, l'Université, de notre pays, de Brest, le plus, d'enseignement, technique, centre, supérieur, grand.
4. pour, industrielle, du Bâtiment, l'Ecole, et des Travaux, agricole, des ingénieurs, civile, supérieure, formait, des ingénieurs, la construction, publics.
5. plus de, professeurs, travaillent, maintenant, y, 600.
6. à l'Université, reçoivent, pendant, les deux premières, les étudiants, la formation, années d'études, de base.
7. est, à la tête, le doyen, de chaque, qui, faculté, de faculté, tout le travail, dirige.
8. les étudiants, d'y bien, ont, travailler, et, des possibilités, de s'y reposer.
9. 4 foyers, habitent, il, les étudiants, existe, où, de l' université.
10. sont, à l'Université, on, l'utile, les années, peut, à l'agréable, d'études, joindre, intéressantes, où.

X. Traduisez du russe en français:

1. БрГТУ является самым большим вузом в западном районе нашей страны.
2. Вузы помогают сформировать личность.
3. Можно учиться на дневном отделении или на отделении заочной формы обучения.
4. Раньше существовал факультет вечернего обучения.
5. Учеба заканчивается выдачей официального диплома.
6. Во главе каждого факультета находится декан.
7. Преподавательский состав насчитывает более 600 человек.

8. Администрация университета расположена на 2-ом этаже главного корпуса.

9. В университете есть студенческая профсоюзная организация.

10. Эти годы интересные, когда можно сочетать полезное с приятным.

XI. Répondez aux questions suivantes:

1. En quelle année êtes-vous?
2. A quelle faculté faites-vous vos études?
3. Quelle est votre spécialité?
4. En quelle année a été fondée votre faculté?
5. Combien d'étudiants font leurs études à votre faculté?
6. Quel est le nom de votre doyen?
7. Comment s'appelle le recteur de l'Université?
8. Savez-vous le nom de famille du premier recteur de l'Université?
9. Combien de recteurs compte l'Université depuis sa fondation?
10. Quels sont leurs noms?
11. Où se trouvent le rectorat et l'administration de l'Université?
12. A quel étage se trouve votre décanat?

XII. Faites le plan du texte et parlez de notre Université.

1.3. LA RÉPUBLIQUE DU BÉLARUS

I. Retenez les mots suivants:

1. à la fois	*1. – одновременно*
2. à peine	*2. – едва*
3. abriter *qn de qch*	*3. – давать приют, укрывать от*
4. apparaître	*4. – появляться*
5. approbation *(f)*	*5. – одобрение, согласие*
6. atteindre	*6. – достигать, добиваться*
7. autorités *(f pl)*	*7. – власти, органы власти*
8. betterave *(f)* à sucre	*8. – сахарная свекла*
9. bicaméral, -e	*9. – двухпалатный*
10. blé *(m)*	*10. – зерно*
11. chêne *(m)*	*11. – дуб*
12. colline *(f)*	*12. – холм*
13. conifères *(m pl)*	*13. – хвойные*
14. confiner *à qch, avec qch*	*14. – граничить*
15. conseiller *(m)*	*15. – советник, председатель, управляющий*
16. consonne *(f)*	*16. – согласный звук*
17. Cour *(f)* Suprême	*17. – Верховный суд*
18. cultiver	*18. – выращивать*
19. débouché *(m)*	*19. – рынок сбыта*
20. denrées *(f pl)* alimentaires	*20. – продовольственные товары*
21. dépourvu, -e *de qch*	*21. – лишенный чего-либо*
22. dissolution *(f)*	*22. – распад, расформирование*
23. élection *(f)*	*23. – избрание, выбор*

24. élevage *(m)*	*24. – животноводство*
25. être arrosé, -e *par qch*	*25. – орошаться*
26. être bordé, -e *par qch*	*26. – окаймляться, ограничиваться*
27. être décimé, -e	*27. – нести большие потери*
28. exiger	*28. – требовать*
29. feuillu, -e	*29. – густолиственный*
30. frontière *(f)*	*30. – граница*
31. gouvernement *(m)*	*31. – правительство*
32. humide	*32. – влажный, сырой*
33. indépendant, -e	*33. – независимый*
34. lac *(m)*	*34. – озеро*
35. législation *(f)*	*35. – законодательство*
36. loutre *(f)*	*36. – выдра*
37. lynx *(m)* [lé:ks]	*37. – рысь*
38. mammifères *(m pl)*	*38. – млекопитающие*
39. marais *(m)*	*39. – болото, трясина*
40. marécage *(m)*	*40. – болото, трясина*
41. mine *(f)* antipersonnelle	*41. – противопехотная мина*
42. minorité *(f)*	*42. – меньшинство*
43. montagne *(f)*	*43. – гора*
44. navigable	*44. – судоходный*
45. nommer	*45. – назначать; называть*
46. pittoresque	*46. – живописный*
47. plaine *(f)*	*47. – равнина*
48. plateau *(m)*	*48. – плато, плоскогорье*
49. pur, -e	*49. – чистый, прозрачный*
50. représenter	*50. – представлять*
51. rigoureu//x, -se	*51. – суровый*
52. rive *(f)*	*52. – берег*
53. sapin *(m)*	*53. – пихта*
54. siège *(m)*	*54. – местопребывание; центр*
55. signataire *(m, f)*	*55. – подписавший(ся)*
56. superficie *(f)*	*56. – поверхность, площадь*
57. Slave *(m, f)*	*57. – славянин, славянка*
58. transcrire	*58. – переписывать*
59. valider	*59. – утверждать, узаконивать*

II. Lisez et traduisez le texte suivant:

«La Biélorussie» ou «le Bélarus»?

En français, le nom de ce pays a connu plusieurs variantes: appelé *Russie blanche* dans les atlas du début du XXième siècle, puis *Biélorussie* pendant toute la période soviétique, le pays indépendant depuis 1991 est parfois nommé *Belarus* ou *Bélarus* dans les documents officiels (au masculin). En toute logique si l'on transcrit ce nom en français par *Bélarus* il devient automatiquement masculin comme tous les noms de pays se terminant par une consonne ou, plus généralement, par autre chose qu'un ***e*** muet. La forme *Bélarus* est cependant exigée dans tous les textes officiels par les autorités biélorusses elles-mêmes depuis le 19 septembre 1991.

Géographie

La Biélorussie, un des plus vieux sièges des Slaves, est située au centre de l'Europe. Dans le cadre des frontières actuelles elle était formée après la Deuxième Guerre mondiale. A l'ouest elle confine à la Pologne (605 km de frontières), au sud à l'Ukraine (891 km), au nord-ouest à la Lituanie (502 km) et à la Lettonie (102 km). A l'est elle est bordée par la Russie (959 km) – soit 3.098 km de frontières terrestres en tout. La Biélorussie a une superficie de 207.600 km2.

Le territoire biélorusse est un territoire ouvert (sans limites naturelles précises) et dépourvu d'accès à la mer. Le Bélarus est une immense plaine basse, souvent marécageuse, ponctuée de collines. Il s'agit d'une grande plaine de faible altitude. Chez nous il n'y a ni montagnes, ni plateaux. La Biélorussie est arrosée par beaucoup de fleuves et de rivières: Dniépr, Soj, Niémen, Dvina, Boug, Pina, Pripiat, Bérésina et beaucoup d'autres. Parmi les plus grands fleuves et rivières on trouve la Dvina occidentale au nord, le Niémen et le Dniépr à l'ouest. Ces fleuves navigables et le canal du Dniépr-Boug permettent un accès à la mer Baltique et à la mer Noire. Le territoire est ponctué de plus de dix mille lacs (Miadel, Svitiaz, les lacs de Braslav et de Polessié) qui lui valent le surnom de «pays aux yeux bleus». Le plus grand, le lac Narotch a une superficie de 79,6 ha. On l'appelle souvent «mer de Biélorussie». Ses eaux sont pures comme le cristal, ses rives sont pittoresques. Au sud s'étendent les marais de Polessié. Notre pays plat possède une des plus vastes régions marécageuses d'Europe et il est couvert de vastes forêts (34% du territoire). Les terres marécageuses ou humides occupent ainsi presque un tiers du territoire et les forêts tiennent un autre tiers.

C'est en Biélorussie que se trouve la célèbre réserve de Bélovejskaïa Pouchtcha, unique dans son genre. Résidence de chasse des Rois polonais et russes successivement, elle est devenue un parc national protégé par l'Etat. Sa superficie est 135 ha. Situé sur la ligne de partage des eaux entre la mer Baltique et la mer Noire, comprenant à la fois des conifères et des feuillus, ce vaste massif de forêt ancienne abrite de nombreux arbres «centenaires»: 34 chênes âgés de 400 ans, 40 sapins âgés de 300 ans et un chêne presque millénaire qui a déjà fêté ses 700 ans! Mais cette réserve est surtout connue par sa faune remarquable et, en particulier, des mammifères rares tels que le loup, le lynx et la loutre ainsi que quelque trois cents bisons d'Europe (zoubrs), espèce réintroduite dans le site, les descendants directs de la préhistoire.

Le climat de la Biélorussie est continental et humide. Les étés sont courts et chauds avec les températures pouvant atteindre les 30°C. Les hivers sont froids, pluvieux et avec de la neige. La température peut descendre à -30°C.

On divise le territoire biélorusse en trois grandes régions naturelles:

– le Nord: le climat rigoureux, les terres pauvres, la densité de la population particulièrement faible;

– le centre du pays est plus dense et avec des terres plus riches;

– le Sud (Polessié et région de Gomel): marécages et forêts dominent, la densité de la population est faible.

Situation politique

La population de la République compte environ dix millions d'habitants. La nationalité de base est représentée par les Biélorusses. Les Russes représentent la minorité la plus importante du pays – 13,2% de la population. Les autres minorités sont constituées par les Polonais, les Ukrainiens, les Juifs et tous les autres. La population de la Biélorussie fut décimée au cours de la Seconde Guerre mondiale. Il fallut attendre les années soixante-dix pour retrouver le niveau de population équivalent à celui d'avant-guerre.

Du point de vue administratif on divise notre pays en une municipalité (de Minsk) et six provinces (oblasts): les régions de Minsk, de Gomel, de Vitebsk, de Moguilev, de Grodno et de Brest. Chaque province est divisée en districts. L'unité administrative la plus petite du pays est le Soviet rural. La plus grande ville de la République est Minsk, sa capitale.

Le Bélarus est gouverné par le parlement bicaméral. Le parlement est formé d'une Chambre de Représentants de 110 députés et d'un Conseil de la République qui est une chambre de représentants territoriaux. Le premier ministre est le chef du gouvernement, il est nommé par le président avec l'approbation de la Chambre des Représentants.

Le président se trouve à la tête de la République et contrôle le pays. Le président est le chef de l'Etat. Les élections ont lieu tous les 5 ans. L'actuel président Alexandre Loukachenko est au pouvoir depuis 1994. Au-delà du parlement le Président a plein pouvoir et autorité sur la législation. Il peut déclarer un référendum, des élections extraordinaires, nommer le conseiller à la Chambre des représentants, nommer le procureur général et même le conseiller de la Banque Nationale. Le Président est celui qui valide les décrets, les lois, les édictes et les commandes qui doivent être respectés sur tout le territoire de la République. C'est le Président qui nomme le Juge de la Cour Constitutionnelle, de la Cour Suprême et de la Cour Suprême spécifique pour les questions économiques.

Le Bélarus est membre de l'Organisation pour la sécurité et la coopération en Europe (OSCE). Il est également signataire de la Convention d'Ottawa sur l'interdiction de l'emploi, du stockage, de la production et du transfert des mines antipersonnelles et sur leur destruction.

Situation économique

L'industrie du pays est développée dans beaucoup de grandes villes: construction d'automobiles et de tracteurs (Minsk, Gomel, Jodino), industrie électronique et radio-électronique (Minsk, Grodno, Brest), industrie chimique (Gomel, Minsk, Grodno, Moguilev), industrie textile (Moguilev, Grodno) et d'autres. La Biélorussie est un pays agricole et industriel à la fois. On y cultive blé, pommes de terre, betteraves à sucre, lin et d'autres cultures. L'élevage est aussi bien développé.

L'économie du Bélarus reste encore orientée vers le marché russe qui demeure un débouché naturel et le principal partenaire commercial. Mais la République exporte aussi ses produits minéraux, ses machines, ses produits chimiques, ses denrées alimentaires et ses métaux dans beaucoup de pays du monde.

III. Trouvez dans le texte les mots et les expressions suivants:

независимая страна; правительственные (официальные) документы; граничить; площадь республики; орошаться большим количеством рек; доступ к Балтийскому и Черному морю; прозрачный как кристалл; обширная область болот; единственный в своем роде; охотничья резиденция королей; отметить свое 700-летие; редкие млекопитающие; 3 большие природные зоны; представлять меньшинство; двухпалатный парламент; каждые 5 лет; соблюдаться на всей территории; член организации; основной партнер.

IV. Dites en russe:

les autorités biélorusses elles-mêmes; dans le cadre des frontières actuelles; un des plus vieux sièges des Slaves; après la Deuxième Guerre mondiale; une plaine de

faible altitude; le surnom de «pays aux yeux bleus»; occuper un tiers du territoire; la célèbre réserve; un parc national protégé par l'Etat; le vaste massif de forêt ancienne; les descendants directs de la préhistoire; la nationalité de base; la plus petite unité administrative; l'approbation de la Chambre des représentants; se trouver à la tête de la République; être au pouvoir depuis 1994; déclarer un référendum; nommer le Juge de la Cour Constitutionnelle; un pays agricole et industriel à la fois.

V. Formez:

a) les adverbes:

Modèle: clair → claire → clairement

logique, immense, vaste, pur, plat, spécial, officiel, actuel, naturel, ancien, indépendant, équivalent

b) les adjectifs:

Modèle: parfaitement → parfaite → parfait

automatiquement, uniquement, spécifiquement, autrement, chaudement, également, généralement, administrativement, successivement, particulièrement

c) les adjectifs et les adverbes:

Modèle: courage → courageux → courageuse → courageusement

nombre *m*, principe *m*, nation *f*, personne *f*, drame *m*, industrie *f*, chimie *f*, culture *f*, commerce *m*, monde *m*

VI. Complétez les propositions suivantes:

dépourvu d'accès à la mer;	le chef du gouvernement;
un autre tiers;	un Conseil de la République;
le Soviet rural;	la minorité la plus importante;
le chef de l'Etat;	des plus vieux sièges des Slaves;
les fleuves navigables;	le canal du Dniépr-Boug;
le lac Narotch;	dans tous les textes officiels;
marécageuses ou humides;	arrosée par beaucoup de fleuves et de rivières
de chasse des Rois polonais et russes;	

1. La forme *Bélarus* est cependant exigée … depuis le 19 septembre 1991.
2. La Biélorussie, un ..., est située au centre de l'Europe.
3. Le territoire biélorusse est un territoire sans limites naturelles précises et ... .
4. La Biélorussie est ... : Dniépr, Soj, Niémen, Dvina, Boug, Pina, Pripiat, Bérésina.
5. ... et ... permettent un accès à la mer Baltique et à la mer Noire.
6. ... a une superficie de 79,6 ha.
7. Les terres ... occupent un tiers du territoire et les forêts ... .
8. Résidence ... successivement, elle est devenue un parc national.
9. Les Russes représentent ... du pays.
10. La plus petite unité administrative du pays est ... .
11. Le parlement est formé d'une Chambre de Représentants et d'... .
12. Le président est ..., le premier ministre est ... .

VII. Vrai ou faux:

1. En français le nom *Bélarus* devient automatiquement masculin comme tous les noms de pays se terminant par une consonne.

2. La Biélorussie a une superficie de 107.600 km2.

3. Le Bélarus est un pays de montagnes et de plateaux.

4. Parmi les plus grands fleuves et rivières on trouve la Dvina occidentale au nord, le Niémen et le Dniépr.

5. C'est en Biélorussie que se trouve la célèbre réserve de Bélovejskaïa Pouchtcha, unique dans son genre.

6. Cette réserve est surtout connue par ses habitants et, en particulier, des visiteurs rares.

7. Le climat du Bélarus est subtropical.

8. On dut attendre les années soixante-dix pour retrouver le niveau de population égal à celui d'avant-guerre.

9. Du point de vue administratif on divise notre pays en trois municipalités et dix provinces (oblasts).

10. Le Bélarus est gouverné par le parlement bicaméral.

11. Le président a plein pouvoir sur la législation et contrôle le pays.

12. La Biélorussie n'est qu'un pays agricole.

VIII. Complétez les phrases suivantes par les prépositions qui conviennent. Employez: *à, après, au cours de, avec, chez, dans, de, en, entre, par, pour, sur, vers*:

1. Le pays indépendant depuis 1991 est parfois nommé *Belarus* ou *Bélarus* ... les documents officiels (au masculin).

2. ... le cadre des frontières actuelles elle était formée ... la Deuxième Guerre mondiale.

3. ... l'ouest elle confine ... la Pologne, ... l'est elle est bordée ... la Russie.

4. Le territoire est ponctué ... plus de dix mille lacs.

5. ... nous il n'y a ni montagnes, ni plateaux.

6. Situé ... la ligne de partage des eaux ... la mer Baltique et la mer Noire, ce vaste massif de forêt ancienne abrite ... nombreux arbres «centenaires».

7. Cette réserve est surtout connue ... sa faune remarquable.

8. Les étés sont courts et chauds ... les températures pouvant atteindre les 30°C.

9. On divise le territoire biélorusse ... trois grandes régions naturelles.

10. La population de la Biélorussie fut décimée ... la Seconde Guerre mondiale.

11. Le Bélarus est membre de l'Organisation ... la sécurité et la coopération ... Europe (OSCE).

12. L'économie du Bélarus reste encore orientée ... le marché russe.

IX. Répondez aux questions:

1. Le Bélarus où se trouve-t-il? Comment est sa situation géographique?

2. Est-ce que le relief de notre pays représente une grande plaine de faible altitude?

3. Quels fleuves et rivières pouvez-vous nommer? Lesquels sont navigables?

4. Qu'est-ce qui vaut le surnom de «pays aux yeux bleus» au Bélarus?

5. Quels marais s'étendent au sud du pays?

6. Comment s'appelle la célèbre réserve nationale protégée par l'Etat? Par quoi est-elle connue?

7. En combien de grandes régions naturelles divise-t-on le territoire du pays?

8. Combien d'habitants y a-t-il dans notre République?

9. Est-ce que notre pays n'est habité que par les Biélorusses? Connaissez-vous

d'autres nationalités?

10. Comment est formé le parlement bicaméral?

11. Qui a plein pouvoir et autorité sur la législation? Qu'est-ce qu'il peut faire?

12. Où est-ce que l'industrie du pays est développée (dans quelles villes)?

X. Traduisez en français:

1. Название этой страны было известно во многих вариантах. Но форма *Беларусь* употребляется сегодня во всех официальных документах.

2. Белоруссия находится в центре Европы. Ее площадь – 207.600 км2.

3. Территория страны – это обширная низменная равнина, часто болотистая, с редкими холмами. У нас нет ни гор, ни плоскогорий.

4. Среди самых больших рек – Западная Двина на севере, Неман и Днепр на западе. Эти судоходные реки дают (разрешают) доступ к Балтийскому и Черному морям.

5. Самое большое озеро Нарочь, площадь которого 79,6 га, называют часто «морем Белоруссии».

6. Известный заповедник Беловежская пуща, единственный в своем роде, стал национальным парком, охраняемым государством.

7. Основное население страны представлено белорусами, остальные национальные меньшинства составляют русские, поляки, украинцы, евреи и другие.

8. С административной точки зрения наша страна разделена на один муниципалитет (Минск) и шесть областей: минская, гомельская, витебская, могилевская, гродненская и брестская.

9. Беларусью управляет двухпалатный парламент, состоящий из Палаты Представителей и Совета Республики.

10. Президент находится во главе республики и контролирует страну. Выборы президента происходят каждые 5 лет.

11. Промышленность страны развита во многих больших городах: тракторо- и автомобилестроение (Минск, Гомель, Жодино), электроника и радиоэлектроника (Минск, Гродно, Брест), химическая промышленность (Гомель, Минск, Гродно, Могилев), текстильная промышленность (Могилев, Гродно) и т.д.

12. Беларусь – одновременно сельскохозяйственная и промышленная страна. Здесь выращивают зерно, картофель, сахарную свеклу, лен и другие культуры.

XI. Parlez de notre République du Bélarus.

1.4. LE PORTRAIT SOCIO-ÉCONOMIQUE DE LA FRANCE

I. Retenez les mots suivants:

1. affluent (m)	*1. приток*
2. aire (f)	*2. пространство; зона; сектор*
3. ajouter	*3. добавить*
4. appartenir	*4. принадлежать*
5. assurer	*5. обеспечивать*
6. attirer	*6. привлекать*
7. biotope (m)	*7. биосфера*

8. collectivité (f)	*8. общность*
9. compris,-e	*9. содержащийся; расположенный*
10. confiance (f)	*10. доверие*
11. constituer	*11. составлять*
12. culminant,-e	*12. кульминационный*
13. développé,-e	*13. развитый*
14. disposer	*14. располагать*
15. dissoudre	*15. распускать*
16. distinguer	*16. различать*
17. DOM (m)	*17. заморский департамент*
18. également	*18. также, в равной степени*
19. élire	*19. избирать*
20. ensemble (m)	*20. система, совокупность*
21. espace (m)	*21. пространство*
22. étendre, s'étendre	*22. простирать, простираться*
23. faire partie de	*23. входить в…, участвовать в…*
24. force (f) armée	*24. войска*
25. fournissant (fournir)	*25. снабжая (снабжать)*
26. frontalier,-ère	*26. пограничный, -ая*
27. gisement (m)	*27. месторождение*
28. hexagone (m)	*28. шестиугольник*
29. île (m)	*29. остров*
30. jeter, se jeter	*30. бросать, бросаться*
31. influencer	*31. влиять*
32. inonder	*32. затапливать, заливать*
33. latitude (f)	*33. широта; климат*
34. législature (f)	*34. легислатура(срок полномочий*)
35. littoral (m)	*35. побережье*
36. long, longue	*36. длинный, -ая*
37. mettre en valeur	*37. подчеркивать, выделять*
38. modeste	*38. скромный*
39. paisiblement	*39. мирно, тихо*
40. parcours (m)	*40. путь, пробег, течение*
41. particulier,-ère	*41. особый, -ая*
42. pouvoir (m) exécutif	*42. исполнительная власть*
43. pouvoir (m) législatif	*43. законодательная власть*
44. point (m)	*44. пункт, точка, место*
45. promontoire (m)	*45. отрог, высокий мыс, выступ*
46. propice	*46. благоприятный, выгодный*
47. protection (f)	*47. защита*
48. puissant,-e	*48. мощный, -ая*
49. rafraîchir	*49. охлаждать, освежать*
50. réchauffer	*50. нагревать, согревать*
51. recouvrir	*51. покрывать; включать*
52. Royaume-Uni (m)	*52. Соединенное Королевство*
53. sage	*53. тихий, спокойный; умный*
54. sauvegarder	*54. сохранять*
55. sensible	*55. ощутимый; чувствительный*

56. site (m)	*56. место, участок, ландшафт*
57. soierie (m)	*57. шелк; шелкоткацкая фабрика*
58. sommet (m)	*58. вершина*
59. subsistance (f) [sybzistã:s]	*59. существование*
60. TOM (m)	*60. заморская территория*
61. y compris	*61. включая сюда*

II. Retenez les noms géographiques:

les Ardennes
le Bassin Armoricain
le Bassin Aquitain
Futuna
Gadeloupe
le Jura
Martinique
la Méditerranée
Miquelon

III. Lisez et traduisez le texte:

La France

Nom officiel: République française
Hymne national: La Marseillaise
Devise: Liberté, Egalité, Fraternité
Drapeau: bleu, blanc, rouge
Monnaie: Franc français jusqu'au 17 février 2002 (FF), puis l'Euro
Capitale: Paris

Un pays de taille moyenne, la France occupe la superficie de 551.600 kilomètres carrés. Sa population est près de 60,4 millions d'habitants selon le recensement de l'an 2000. C'est le pays le plus étendu d'Europe, sauf la Russie et l'Ukraine.

Les limites de la France peuvent s'inscrire dans une figure géométrique se rapprochant de l'hexagone. La République française comprend la métropole divisée en 22 régions et 96 départements. L'île de Corse, massif granitique dans la Méditerranée, en fait également partie. Il faut y ajouter les 4 départements d'outre-mer (DOM): Guadeloupe, Martinique, Guyane, La Réunion, 4 territoires d'outre-mer (TOM): Polynésie française, Nouvelle Calédonie, Wallis et Futuna, puis les Terres australes et antarctiques françaises et les collectivités territoriales à statut particulier: Mayotte et Saint-Pierre-et-Miquelon.

Les pays frontaliers de la France sont: la Belgique, le Luxembourg, l'Allemagne, la Suisse, l'Italie, l'Espagne, Monaco et Andorre, et le Royaume-Uni par le tunnel sous la Manche.

La France est le promontoire occidental du continent européen. La France s'ouvre sur 4 espaces maritimes les plus actifs de l'Europe: la Méditerranée, l'océan Atlantique, la Manche et la mer du Nord.

La France est un pays à reliefs variés, de vastes ensembles de plaines – plaines du Nord, Bassin Parisien et Bassin Aquitain, de petites montagnes – le Jura, les Ardennes, les Vosges et le Massif Central, jusqu'aux hautes montagnes comme les Pyrénées et les Alpes dont le point culminant, le Mont-Blanc, est le plus haut sommet d'Europe

occidentale – 4.807 mètres.

Les 4 fleuves français sont de dimensions modestes. Le plus long, la Loire, a environ 1.000 km. Elle s'étend sur trois régions naturelles: le Massif Central, le Bassin Parisien et le Bassin Armoricain. Elle se jette dans l'océan Atlantique. La Seine, fleuve sage et utile du Bassin Parisien, descend paisiblement jusqu'à la Manche. Ainsi que ses principaux affluents, elle est navigable sur la majeure partie de son parcours. La Garonne est un fleuve montagnard. Ses hautes eaux de fin de printemps inondent souvent des champs et des vallées. Le Rhône, du coeur des Alpes à la Méditerranée, est un fleuve puissant. Le bassin de ce fleuve, y compris ses affluents alpins, donne environ la moitié de l'hydroélectricité française. Sur le Rhône, les centrales hydroélectriques sont bâtis en cascades.

Située à l'égale distance du pôle nord et de l'équateur, la France a un climat tempéré, ni trop froid, ni trop chaud. Comprise entre le 42° et le 51° de latitude norde, la France se trouve dans la partie de l'Europe la plus sensible aux influences des mers, qui réchauffent les hivers, rafraîchissent les étés. Le climat de la France est très varié. On distingue le climat océanique (à l'ouest), le climat méditerranéen (au sud) et le climat continental (au centre et à l'est).

La France est assez riche en ressources naturelles. Son sous-sol renferme les gisements du minerai de fer en Normadie et dans les Pyrénées, des bauxites en Provence, du gaz naturel en Aquitaine et dans le Massif Central, du charbon au Nord-Pas-de-Calais, en Lorraine. La France est pourtant pauvre en pétrole brut. Elle ne possède qu'un seul grand gisement, celui des Landes. Les autres (le Bassin Parisien, par exemple) sont assez modestes.

La France est un pays industriellement développé. Ses industries traditionnelles sont la métallurgie, les constructions navales, la construction automobile, l'industrie aéronautique, l'industrie chimique, l'industrie textile, l'industrie d'articles de luxe, l'industrie alimentaire.

Les principales villes françaises sont: Paris, capitale de la France, toutes les branches de l'industrie y sont représentées, Paris attire les gens, domine l'économie rurale pour assurer sa subsistance; Marseille, le plus grand port de commerce sur la Méditerranée; Bordeaux, le Havre, ports océaniques; Lyon, centre de la production d'armes et le centre traditionnel de la soierie; Toulon, Cherbourg et Brest, grands ports militaires; Lille, centre de textile, Clermont-Ferrand, centre de l'industrie automobile, Grasse, capitale mondiale des parfums; Grenoble, une grande ville universitaire. La France compte 52 aires urbaines de plus de 150.000 habitants qui regroupent 30 millions d'habitants. Les 5 premières sont (population en 1999): Paris – 10,6 millions, Lyon – 1,6 million, Marseille-Axe-en-Provence – 1,1 million, Lille – 1,1 million, Toulouse – 0,9 million.

L'agriculture est également développée en France. Les plaines du Nord sont très propices à la culture du blé et de la betterave. La vigne est cultivée à travers tout le pays fournissant les vins les plus réputés du monde. Les légumes et les fruits sont cultivés dans toutes les régions du pays. L'élevage est surtout développé dans le Nord du pays, en Normandie, en Bretagne, dans les régions montagneuses et en Camargue.

Les zones de production agricole et forestière couvrent une superficie de 48 millions d'hectares, soit 82% du territoire métropolitain. Le massif forestier représente à lui seul 27% du territoire et constitue le 3-ème massif de l'Union européenne après ceux de Suède et de Finlande. Afin de sauvegarder et de mettre en valeur le patrimoine naturel en France, l'Etat a créé 6 parcs nationaux, 128 réserves naturelles, 430 zones de

protections de biotopes ainsi que 299 sites protégés par le Conservatoire du Littoral. S'y ajoutent 29 parcs naturels régionaux couvrant plus de 7% du territoire. 22,11 milliards d'euros sont consacrés à la protection de l'environnement.

Selon la Constitution approuvée par référendum [referέdom] en 1958, le régime politique de la France est un régime parlementaire qui porte le nom de la V-ème République.

Le pouvoir exécutif appartient au président de la République élu pour 5 ans et au gouvernement. Le président de la République joue un rôle très important dans la vie du pays. Il nomme le Premier Ministre qui doit avoir la confiance du Parlement, préside le Conseil des Ministres, signe les décrets, peut recourir au référendum pour certains projets de loi particulièrement importants, peut dissoudre l'Assemblée Nationale.

Le gouvernement se compose du Premier Ministre nommé par le Chef de l'Etat, des ministres et des secrétaires d'Etat également nommés par lui sur la proposition du Premier Ministre. Les ministres et les secrétaires d'Etat constituent le Conseil des Ministres. Le Premier Ministre dirige l'action du gouvernement qui détermine et conduit la politique de la nation. Le gouvernement dispose de l'administration et de la force armée.

Le pouvoir législatif appartient au parlement qui se compose de deux assemblées: L'Assemblée Nationale et le Sénat. L'Assemblée Nationale comprend 552 députés, âgés de 23 ans au moins. Son président est élu pour toute la durée de la législature. Le Sénat est composé de 316 membres élus pour 9 ans. Du point de vue législatif, le Sénat a théoriquement les mêmes pouvoirs que l'Assemblée. Telle est la France en miniature.

IV. Posez 10 questions sur le contenu du texte lu.

V. Dans le texte trouvez les équivalents des mots russes donnés ci-dessous:

согласно чему-либо; приближаясь; половина гидроэлектроэнергии; от полюса и от экватора; производство оружия; университетский город; самые изысканные вина; глава государства; с точки зрения; по крайней мере.

VI. A chaque groupe d' adjectifs trouvez son nom:

1. principale, française, commerciale	1. le territoire
2. agricole, traditionnel, mondial	2. les régions
3. blancs, rouges, demi-secs, les plus réputés	3. la ville
4. montagneuses, forestières, agricoles	4. les vins
5. politique, parlementaire, capitaliste	5. le climat
6. premier, nommé par..., élu	6. les ressources
7. important, administratif, initial	7. le ministre
8. métropolitain, marécageux, d'outre-mer	8. le centre
9. naturelles, artificielles, traditionnelles	9. le projet
10. océanique, tempéré, continental	10. le régime

VII. Trouvez les mots de la même famille et traduisez-les:

égalité (f), libre, variation (f), fraternité (f), frais (fraîche), également, rafraîchir, libération (f), égal(e), fraîcheur (f), varié, fratricide (m), libérer, inégal(e), variété (f), fraternel(e), égaliser, rafraîchissement (m), liberté (f), varier, librement, égaler.

VIII. Complétez les phrases:

1. Les limites de la France peuvent...
2. La France s'ouvre sur 4 espaces maritimes...
3. Le Mont Blanc est...
4. ..., fleuve sage et utile du Bassin Parisien, descend paisiblement...
5. Sur le Rhône, les centrales ... en cascades.
6. On distingue le climat...
7. Ses industries traditionnelles sont...
8. ... à travers tout le pays fournissant les vins les plus réputés du monde.
9. Le massif forestier représente à lui seul...
10. Le régime politique de la France est ...
11. Le pouvoir législatif appartient ...

IX. Faites les phrases des mots donnés ci-dessous:

1. massif granitique, l'île, dans, également, la Méditerranée, de Corse, partie, en fait.
2. rouge, de la France, blanc, est, tricolore, le drapeau, bleu.
3. est, occidental, du continent, la France, le promontoire, européen.
4. à reliefs, la France, où, de vastes plaines, de petites , il y a, variés, et de hautes montagnes, est, un pays.
5. située, du pôle, la France, à l'égale distance, a, un climat, et de l'équateur, tempéré.
6. au Président, le pouvoir, et au gouvernement, exécutif, appartient.
7. de 48 millions, les zones, couvrent, de production agricole, une superficie, et forestière, d'hectares.
8. le Président, joue, dans, très, de la République, la vie, un rôle, important, du pays.
9. le Sénat, que l'Assemblée, du point de vue législatif, les mêmes pouvoirs, a, théoriquement.
10. et de la force, dispose, le gouvernement, armée, de l'administration.

X. Traduisez du russe en français:

1. Франция – это государство западной Европы.
2. Население Франции достигает 60 млн. человек.
3. В Париже представлены все отрасли промышленности.
4. Франция насчитывает 52 городские зоны с населением более чем 150.000 жителей, которые объединяют 30 млн. жителей.
5. Франция имеет свои южные и антарктические земли.
6. Высокие горы, такие как Пиренеи и Альпы, называют молодыми горами.
7. Франция находится в европейской части наиболее чувствительной к влиянию морей.
8. Президент Франции избирается на 5 лет и играет очень важную роль в жизни страны.
9. Правительство состоит из премьер-министра, министров и государственных секретарей.
10. Премьер-министр назначается главой государства, президентом, министры и госсекретари назначаются также президентом по предложению премьер-министра.

XI. Faites le plan du texte et exposez ce texte.

1.5. MON FUTUR MÉTIER

I. Retenez les mots suivants:

1. aboutir *à qch*	*1. – приводить к…, заканчиваться чем-л.*
2. acquis, -e	*2. – приобретённый, -ая*
3. apprendre	*3. – изучать*
4. aptitude *(f)*	*4. – способность*
5. assumer	*5. – брать на себя*
6. charge *(f)*	*6. – зд. должность, обязанность*
7. choix *(m)*	*7. – выбор*
8. concevoir	*8. – постигать; задумывать*
9. conséquence *(f)*	*9. – следствие, последствие*
10. consister *(à+infin.)*	*10. – состоять, заключаться в…*
11. courant, -e	*11. – обычный, -ая*
12. découverte *(f)*	*12. – открытие*
13. demande *(f)*	*13. – потребность, спрос*
14. désigner	*14. – обозначать, указывать*
15. devenir	*15. – становиться*
16. domaine *(m)*	*16. – область, сфера*
17. engagement *(m)*	*17. – наем, зачисление на службу*
18. engin *(m)* de guerre	*18. – военная машина, орудие, механизм*
19. entreprise *(f)*	*19. – предприятие*
20. équipier *(m)*	*20. – член команды*
21. essence *(f)* militaire	*21. – военная суть, основа, природа*
22. exercer	*22. – заниматься*
23. exiger	*23. – требовать*
24. fortification *(f)*	*24. – оборонительное сооружение*
25. gestion *(f)*	*25. – управление, руководство*
26. hésiter	*26. – сомневаться*
27. inventer	*27. – изобретать*
28. majorité *(f)*	*28. – большинство*
29. mise *(f)* en œuvre	*29. – применение, использование*
30. outre	*30. – кроме*
31. ouvrage *(m)*	*31. – работа, сооружение, укрепление*
32. projet *(m)* de fin d'études	*32. – дипломная работа*
33. publi//c, -que	*33. – общественный, государственный*
34. quotidien, -ne	*34. – ежедневный, будничный*
35. récent, -e	*35. – недавний*
36. recherche *(f)*	*36. – изыскания, исследования*
37. reconnu	*37. – признанный*
38. référence *(f)*	*38. – справка, ссылка*
39. rendre	*39. – отдавать, делать*
40. résoudre *qch*	*40. – решать, находить решение*
41. responsabilité *(f)*	*41. – ответственность*
42. réussite *(f)*	*42. – достижение*
43. s'étendre	*43. – простираться*
44. sang *(m)*	*44. – кровь*
45. science *(f)*	*45. – наука*

46. se confirmer	*46. – подтверждаться*
47. siège *(f)*	*47. – зд. осада*
48. soutenir	*48. – защитить*
49. succès *(m)*	*49. – успех, удача*
50. supporter	*50. – поддерживать*
51. valeur *(f)*	*51. – ценность, значение, достоинство*
52. vie *(f)* courante	*52. – обычная жизнь*

II. Trouvez dans les textes donnés ci-dessous tous les mots internationaux.

III. Lisez et traduisez les textes suivants:

METIER DE BASE DE L'INGENIEUR

«Le métier de base de l'ingénieur consiste à résoudre des problèmes de nature technologique, concrets et souvent complexes, liés à la conception, à la réalisation et à la mise en œuvre de produits, de systèmes ou de services. Cette aptitude résulte d'un ensemble de connaissances techniques d'une part, économique, social et humain d'autre part, reposant sur une solide culture scientifique.» (Commission des Titres d'Ingénieurs).

Les ingénieurs sont employés par des entreprises industrielles ou de services, des organismes publics, des collectivités ou l'État. L'ingénieur occupe souvent un poste à hautes responsabilités et est un acteur majeur du progrès technique et du développement des connaissances techniques. Ses choix peuvent également avoir des conséquences économiques, scientifiques, humaines, sociales ou environnementales.

Au-delà de références historiques d'essence militaire, l'ingénieur apparaît dans sa version moderne à partir du XIX^{e} siècle (1^{e} révolution industrielle), où il se confirme comme un acteur de premier plan du développement industriel. Le terme **ingénieur** vient de l'ancien français *engigneor* qui désignait un constructeur d'engins de guerre. Dans un sens vieilli, ce terme désigne donc celui qui construisait ou inventait des machines de guerre ou concevait et réalisait des ouvrages de fortification ou de siège de places fortes.

Enfin, le terme d'**ingénierie**, construit sur celui d'*ingénieur*, rassemble les processus et les méthodes d'invention de solutions et de coordination technique permettant d'aboutir – par synthèses successives et approche pluri-disciplinaire – à des objets techniques complexes. Dans la pratique, on utilise, les termes de *génie de l'air, génie maritime, génie rural, génie civil, génie génétique, génie chimique, génie logiciel, génie mécanique, génie industriel*, etc.

Les deux premières années d'études comprennent surtout des cours de base en mathématiques, en informatique et en sciences appliquées (dynamique, thermodynamique, dessin technique, matériaux, etc.). Les troisième et quatrième années couvrent généralement les principes d'analyse et de conception de la discipline ou de la spécialité choisie. En dernière année, un projet de fin d'études permet de mettre en pratique les connaissances acquises.

Tout au long de leur vie professionnelle, les ingénieurs se basent sur quatre valeurs qui les aident à maintenir la confiance du public envers eux: la compétence, le sens de l'éthique, la responsabilité et l'engagement social. L'ingénieur en charge du projet utilise des méthodes, des outils et des machines mais aussi du calcul, des logiciels et de la simulation relevant de l'ingénierie numérique.

L'ingénierie consiste en fait à appliquer les résultats des sciences à des problèmes concrets, industriels ou quotidiens. Les ingénieurs participent aussi fréquemment à la

recherche scientifique, soit en initiant et en pilotant les projets de recherche liés à un domaine industriel, soit en travaillant sur les aspects concrets de la recherche.

MA FUTURE SPECIALITE

Pourquoi choisit-on le métier d'ingénieur? On devient ingénieur, parce que l'on a déjà un peu ça «dans le sang»! Avant de choisir une grande école d'ingénieur, un futur-ingénieur est souvent une personne active, imaginative, ingénieuse, ouverte, curieuse de comprendre le fonctionnement des choses. C'est aussi une personne passionnée par les sciences et les techniques. Ensuite on devient ingénieur pour le plaisir de concevoir, de réaliser, d'innover, de mener des projets. On devient ingénieur aussi pour travailler en équipe, assumer les responsabilités animées par le goût de réussir et de faire réussir ses co-équipiers.

Aujourd'hui on choisit souvent une orientation en électronique, informatique et télécommunications. Ce champ est très large et s'étend de plus en plus. L'électronique et le traitement de l'information étaient encore peu réservés à certains secteurs de l'économie. Ils investissent maintenant la vie courante et l'industrie. Ils sont désormais partout: médecine, loisir, transports, pédagogie, etc. En formant à un profil généraliste de l'électronique et du traitement de l'information, les universités répondent à un besoin fort des entreprises. Il s'agit en effet de domaines ne supportant pas de simples connaissances générales, mais des compétences scientifiques et techniques reconnues.

Parfois on pose une question: «Le métier d'ingénieur est-il fait pour les jeunes filles?» Elles peuvent exercer de très beaux métiers d'ingénieurs, passent de belles années en études d'ingénieurs. Et pourtant, elles hésitent encore! Ici il s'agit sans doute plus du poids des traditions ou de clichés qui veut que certains domaines soient réservés aux hommes. Par exemple: il y a quelques années, le métier d'avocat était très masculin et maintenant il est très largement féminisé. La profession est pourtant restée la même!

La demande d'ingénieurs devient de plus en plus importante. On a besoin de spécialistes dans le domaine de l'électronique, de l'informatique, de la biotechnologie, des énergies nouvelles, de l'environnement etc.

Outre cela la majorité des ingénieurs n'occupe pas de postes réellement techniques. La tendance actuelle rend l'ingénieur de plus en plus pluridiscipli-naire: il s'occupe de gestion et notamment de la gestion de la production.

Et moi, je fais mes études à l'Université Technique d'Etat à Brest. Je suis étudiant(e) de la faculté des systèmes d'informations électroniques. Je suis en première (deuxième) année. Dans quelques années je terminerai notre Ecole Supérieure et j'aurai mon diplôme d'ingénieur.

Pour avoir mon diplôme je dois apprendre beaucoup de matières spécialisées. Encore j'étudie les sciences sociales et une langue étrangère. A la fin des études je dois soutenir mon travail de diplôme. Pour devenir un bon spécialiste il faut préparer des rapports pour les conférences scientifiques, lire la litterature spéciale et être au courant de toutes les découvertes et réussites récentes dans le domaine de l'électronique et du traitement de l'information.

Je fais tout ça avec un grand plaisir et je suis heureux d'avoir choisi ma faculté et ma future profession.

IV. Dites en français:

увлечен наукой и техникой; брать на себя; постигать; сомневаться; учиться; изучать; профессия адвоката; профессия инженера; закончить; требовать; огромная потребность предприятий; широко феминизирован; защитить; стать хорошим специалистом; готовить доклады; доклады на научные конференции; быть в курсе; нуждаться; быть счастливым; занимать

V. Dites en russe:

la demande d'ingénieurs; le fonctionnement des choses; mener des projets; le métier d'ingénieur; une grande école d'ingénieur; le plaisir d'innover; la vie courante; la majorité; de simples connaissances; des réussites récentes; des compétences scientifiques et techniques reconnues; le domaine des énergies nouvelles; la gestion de la production; en deuxième année; le travail de diplôme; les découvertes; des matières spécialisées

VI. Corrigez les phrases:

1. On devient ingénieur pour le plaisir de se reposer avec ses amis.
2. Un futur-ingénieur est souvent une personne sans aucune imagination, paresseuse, ne voulant pas comprendre le fonctionnement des choses.
3. L'électronique et le traitement de l'information investissent maintenant la vie des animaux et la nature.
4. Les écoles primaires répondent à un besoin fort des entreprises.
5. Le métier d'avocat ne sera jamais féminisé.
6. On a besoin d'ingénieurs dans le domaine de la pédagogie et de la psychologie.
7. Je suis maintenant en quatrième année.
8. Pour avoir mon diplôme je dois me reposer beaucoup pendant les cours.
9. La demande d'ingénieurs devient de plus en plus intéressante.
10. Je suis si malheureux d'avoir choisi ma faculté et ma future profession.

VII. Remplacez les points par des prépositions convenables:

1. Le métier ... base de l'ingénieur consiste ... résoudre des problèmes de nature technologique.
2. L'ingénieur occupe souvent un poste ... hautes responsabilités.
3. L'ingénieur apparaît ... sa version moderne ... XIX^{e} siècle.
4. Le terme d'ingénierie est construit ... celui d'ingénieur.
5. Quatre valeurs aident ... les ingénieurs ... maintenir la confiance du public ... eux.
6. Les ingénieurs participent ... la recherche scientifique en travaillant ... les aspects concrets de la recherche.
7. On devient ingénieur ... travailler ... équipe, assumer les responsabilités animées ... le goût ... réussir.
8. On choisit ... une orientation ... électronique et ... informatique.
9. La majorité ... ingénieurs n'occupe pas ... postes réellement techniques.
10. ... quelques années je terminerai ... notre Ecole Supérieure.
11. On prépare des rapports ... les conférences scientifiques.
12. On est ... courant ... toutes les découvertes ... le domaine de l'électronique.

VIII. Faites les propositions avec des mots donnés:

1. Un, imaginative, et, techniques, est, une, active, et, par, les, futur-ingénieur, passionnée, sciences, les, personne.
2. On, projets, concevoir, devient, le, de, plaisir, réaliser, d'innover, ingénieur, de, pour, mener, des, de.
3. On, aussi, devient, en, pour, travailler, assumer, des, équipe, responsa-bilités, ingénieur.
4. On, orientation, informatique, souvent, une, et, électronique, en, choisit.
5. Ce, large, s'étend, est, plus, très, et, de, en, champ, plus.

6. Il, scientifiques, reconnues, s'agit, compétences, et, des, techniques.

7. Les, d'ingénieurs, filles, années, de, belles, en, jeunes, études, passent.

8. Il, clichés, s'agit, de, que, hommes, certains, domaines, voulant, réservés, aux, soient.

9. Je, mes, des, d'informations, faculté, études, systèmes, fais, électroniques, en.

10. Dans, j', d'ingénieur, années, diplôme, aurai, mon, quelques.

IX. Trouvez dans le texte les groupes de mots contenant les verbes:

a) à la Forme passive;

b) au Subjonctif;

c) mettez les verbes donnés à toutes ces formes verbales:

choisir, pouvoir, être, devenir, réussir, devoir, comprendre, faire, investir, répondre, poser, connaître, soutenir, rendre.

X. Répondez aux questions:

1. Pourquoi choisit-on le métier d'ingénieur?
2. L'électronique et le traitement de l'information, sont-ils désormais partout?
3. Le métier d'ingénieur est-il fait pour les jeunes filles?
4. La demande d'ingénieurs, comment devient-elle?
5. De quels spécialistes a-t-on besoin?
6. L'ingénieur, de quoi s'occupe-t-il actuellement?
7. Où faites-vous vos études?
8. Quelles matières apprenez-vous?
9. Qu'est-ce que vous devez faire à la fin des études?
10. Qu'est-ce qu'il faut faire pour devenir un bon spécialiste?

XI. Traduisez en français:

1. Инженером становятся также, чтобы работать в команде, брать на себя ответственность в стремлении преуспеть.

2. Будущий инженер является часто человеком активным, наделенным богатым воображением, изобретательным.

3. Электроника и обработка информации были еще мало задействованы в некоторых отраслях экономики.

4. Речь идет об областях, где не востребуются простые знания общего характера, но признанная научная и техническая осведомленность.

5. Инженеры сегодня занимаются также управлением производства.

6. Существует необходимость в специалистах в области электроники, биотехнологии и новых энергий.

7. Через несколько лет я окончу наш университет и получу диплом инженера.

8. В конце своей учебы я должен защитить дипломную работу.

9. Надо быть в курсе всех открытий и недавних достижений в области электроники.

10. Надо готовить доклады и читать литературу по специальности.

XIII. Parlez de votre future spécialité.

2.1. ORDINATEUR ET SES COMPOSANTS

I. *Traduisez sans dictionnaire les mots et les expressions suivants:*

l'unité centrale, un ordinateur portable, un bloc, jouer le rôle, un clavier, une souris, suivre les étapes, une facade, l'ouverture, faire glisser.

II. *Lisez et retenez les mots donnés:*

a) boîtier (m)	– корпус, коробка
courant (m)	– ток (электрический)
données (pl f)	– данные
enceintes (pl f)	– *зд.:* колонки звуковые
hardware (m)	– аппаратные средства, оборудование
interrupteur (m)	– выключатель
mémoire (f)	– память
software (m)	– программное обеспечение
tournevis (m)	– отвертка
vis (f)	– винт
b) contenir	– содержать, включать в себя
débrancher	– выключать
écarter	– отодвигать, отстранять
éteindre	– выключать, погасить
se retirer	– изыматься, удаляться

III. *Parmi les mots donnés ci-dessous trouvez les synonymes:*

1. les composants _____
2. être relié _____
3. éteindre _____
4. généralement _____
5. les étapes _____

_____

couper, les pas, les éléments, s'assembler, de la manière ordinaire

IV. *Lisez le texte A.*

Texte A. Unité centrale

L'*unité centrale* (angl.: CPU central processing unit) est un boîtier principal de votre ordinateur. A première vue, c'est une boîte plastifiée branchée au secteur. On parle de "hardware" pour désigner l'ensemble des éléments matériels de l'ordinateur par opposition au "software" qui définit la partie logicielle. Dans un ordinateur portable, tous les composants sont reliés dans un même bloc.

C'est l'*unité centrale* qui va jouer le rôle du cerveau et de la mémoire de l'ordinateur. Elle contient vos données, les logiciels, et tous les *périphériques* (angl.: peripherals) y sont reliés: clavier, souris, écran, enceintes...

Pour ouvrir une *unité centrale*, il faut d'abord éteindre l'ordinateur et suivre ces étapes:

Une fois l'ordinateur éteint, il faut mettre l'interrupteur de courant à 0. Il se trouve à l'arrière de l'unité centrale (ce n'est pas celui en facade avant). Vous pouvez ensuite débrancher le câble de courant.

L'ouverture se fait généralement en enlevant les 2 vis de droite quand on regarde de derrière. Sur les ordinateurs récents elles se retirent sans l'aide de tournevis. Ensuite il faut faire glisser la façade vers l'arrière, et écartez-la de l'unité centrale.

V. *Trouvez dans le texte les compléments (les noms) qui conviennent aux verbes suivants:*

relier _____
contenir _____
éteindre _____
mettre _____
débrancher _____
enlever _____
faire glisser _____
écarter _____

VI. *Expliquez les termes suivants:*

l'unité centrale
les périphériques
l'interrupteur de courant

VII. *Dressez le plan du texte A et résumez-le d'après ce plan.*

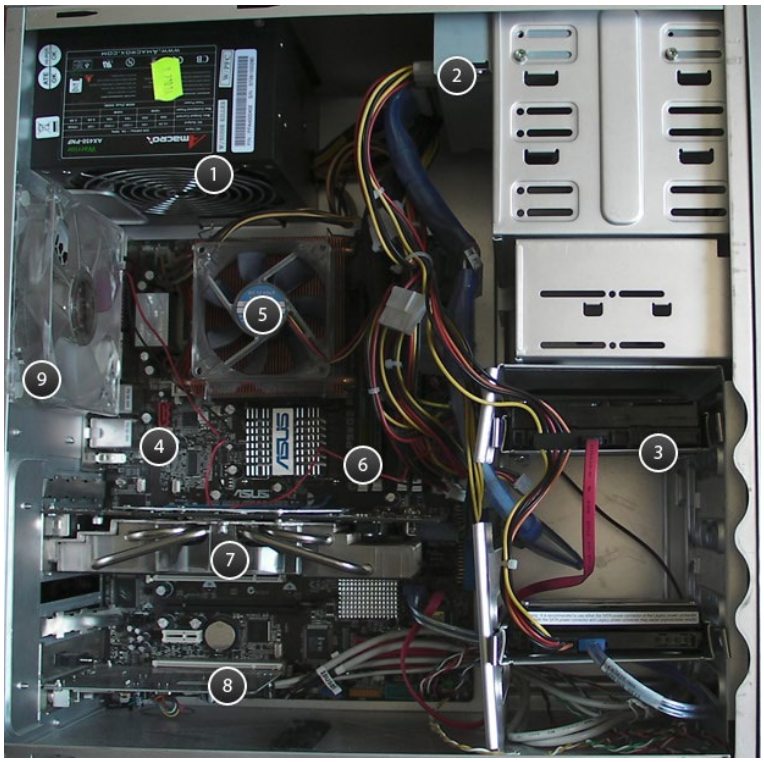
VIII. *Retenez les mots donnés ci-dessous et lisez le texte B.*

a) affichage (m)	– отображение, вывод информации
bloc (m) d'alimentation	– блок питания
branchement (m)	– подключение, соединение в цепи
calculs (pl m) binaires	– двоичные расчеты
capacité (f)	– 1. возможность; 2. емкость (*техн.*)
carte (f) graphique	– видеокарта
carte (f) mère	– материнская плата

centrale (f) électrique – электростанция
compartiment (m) – отсек, отделение
disque (m) dur – жесткий диск
emplacement (m) – размещение, место, слот
exécution (f) – выполнение
jeu (m) – игра
mémoire (f) vive – оперативная память, ОЗУ
modélisation (f) – моделирование, разработка
processeur (m) – процессор
réseau (m) sans fil – беспроводная сеть
système (m) d'exploitation – операционная система
b) alimenter – снабжать
chauffer – нагревать
convertir – конвертировать, превращать
enregistrer – записывать, зарегистрировать
envoyer – оправлять, посылать
être en marche – находиться в действии, в движении
éviter – избегать
refroidir – охлаждать
stocker – хранить
c) digne des enfers – достойный ада
puissant – мощный
supplémentaire – дополнительный
véritable – настоящий

Texte B. L'intérieur de l'unité centrale

Voici une unité centrale ouverte.



1. Le bloc d'alimentation

L'alimentation, c'est la centrale électrique de l'ordinateur. Le bloc reçoit le courant électrique 220 Volts et le convertit en 12 Volts. Des câbles colorés en sortent pour aller alimenter chaque élément de l'unité centrale.

2. Le/Les lecteurs CD/DVD/Blu-Ray

Les lecteurs de disques: CD, DVD et même Blu-Ray (pour les plus récents) sont généralement placés en haut de l'unité centrale dans un compartiment adapté. Les lecteurs d'ordinateur ont généralement également la capacité de graver des disques vierges.

3. Le/Les disques durs

Le disque dur est la mémoire de l'ordinateur, qui stocke toutes les données informatiques: le système d'exploitation Windows, les logiciels, et vos données personnelles (photos, musiques, films, documents...). C'est un élément essentiel dans un ordinateur.

4. La carte mère

C'est la plus grande carte éléctronique de l'ordinateur. La carte mère a pour rôle de centraliser toutes les données. C'est le chef d'orchestre de l'ordinateur: tous les autres éléments d'une unité centrale y sont reliés afin de communiquer entre eux.

5. Le processeur

L'élément le plus important de la carte mère, et donc de l'ordinateur, le processeur est le cerveau de la machine. C'est lui qui gère tous les calculs binaires, et qui agit quand on clique, on ouvre un document, ou qu'on l'enregistre.

6. La mémoire vive : RAM

La mémoire RAM est une mémoire très rapide qui va servir à stocker provisoirement des informations lorsque l'ordinateur est en marche: elle sert à stocker des données utiles du système et des logiciels pendant leur fonctionnement, afin que leur exécution soit rapide.

7. La carte graphique

La carte graphique a pour rôle de s'occuper d'envoyer l'affichage à l'écran. Elle convertit les informations électriques de l'ordinateur en une image. Les cartes graphiques puissantes sont de véritables petites unités centrales dont le rôle exclusif est de s'occuper du calcul et de l'affichage de la 3D, notamment pour les jeux vidéos, les montages vidéos et les logiciels professionnels de modélisation 3D.

8. Des emplacements pour d'autres cartes

Des emplacements libres vous permettront de brancher des cartes supplémentaires: pour rajouter des branchements USB, une carte Wi-Fi pour avoir un réseau sans fil sur votre ordinateur fixe...

9. Les ventilateurs

L'électronique, ça chauffe et pas qu'un peu. Pour éviter une température digne des enfers à l'intérieur, des ventilateurs et des radiateurs sont placés stratégiquement pour refroidir les composants.

IX. *Mettez l'article ou la préposition ou tous les deux, s'il le faut:*

1. Le bloc _____ alimentation convertit le courant électrique _____ 12 Volts.
2. _____ lecteurs de disques sont placés _____ un compartiment adapté.
3. La carte mère a _____ rôle _____ concentrer toutes les données.
4. Le processeur gère tous _____ calculs binaires.
5. La mémoire vive va servir _____ stocker _____ informations utiles _____ système.
6. _____ carte graphique convertit _____ informations électriques _____ une image.
7. Des emplacements libres permettent _____ rajouter _____ branchements USB, _____ carte Wi-Fi.
8. Des ventilateurs sont placés _____ éviter _____ température digne _____ enfers.

IX. *Trouvez dans le texte les explications des termes suivants:*

- le disque dur
- la mémoire vive
- le processeur
- la carte mère
- la carte graphique
- le lecteur de disques
- le ventilateur

X. *Vrai ou faux:*

1. Les câbles colorés du bloc d'alimentation fournissent d'électricité à tous les éléments de l'unité centrale.
2. Le disque dur garde toutes les données informatiques de l'ordinateur.
3. La mémoire vive permet aussi de stocker des informations pendant tout le temps, même quand l'ordinateur n'est pas en marche.
4. La carte graphique est nécessaire notamment pour les jeux vidéos, les montages vidéos et les logiciels professionnels de modélisation 3D.
5. Il ne faut pas avoir absolument un ventilateur pour refroidir l'ordinateur.

XI. *Traduisez en français:*

1. Дисководы находятся в верхней части процессора, они могут считывать и записывать данные на диски. _____

_____

_____

_____

2. Являясь мозгом компьютера, процессор управляет всеми двоичными расчетами. _____

_____

_____

3. Материнскую плату можно назвать дирижером компьютера, централизующим все его данные. _____

_____

_____

_____

4. Мощные видеокарты – это действительно настоящие маленькие центральные процессоры. _____

_____

_____

_____

5. Свободные слоты позволяют добавить больше соединений USB.

_____

_____

XII. *En vous inspirant du texte ci-dessus, décrivez chaque élément constitutif de l'unité central de l'ordinateur.*

2.2. RÉSEAU INFORMATIQUE, TRANSFERT DE DONNÉES

I. *Traduisez sans dictionnaire les mots et les expressions suivants:*

a) le schéma, le curseur, l'imprimante, le câble, le centre, le membre de la famille, l'appareil, tout le monde, le contenu, une fois, la zone de gauche, cliquer, ouvrir une fenêtre, permettre, s'occuper, pouvoir, actuellement, également, facilement, généralement;

b) портативный компьютер, интернет, пример, элемент, данные, типичный, каждый.

II. *Lisez et retenez les mots donnés:*

a) flèche (f)	– стрелка
installation (f)	– оборудование
ligne (f)	– линия, строка
liste (f)	– список, перечень
ordinateur (m) fixe	– стационарный (настольный) компьютер
réseau (m)	– сеть
routeur (m)	– роутер, маршрутизатор
b) accéder à	– получить доступ к
apparaître	– появляться
communiquer	– общаться, связываться
constituer	– образовывать, создавать
dérouler	– развертывать, раскрывать
désigner	– обозначать
distribuer	– распределять
partager des fichiers	– обмениваться файлами
c) adjacent	– примыкающий, находящийся рядом с
allumé	– включенный

connecté – подключенный, соединенный
domestique – домашний, внутренний
local – локальный, местный
d) à côté de – рядом с
sans fil – беспроводной

III. *Des mots donnés formez et traduisez:*

***a**) les adverbes:*

fixe _____
juste _____
personnel _____
principal _____
typique _____

***b)** les adjectifs:*

centre *m* _____
famille *f* _____
monde *m* _____
musique *f* _____
zone *f* _____
élément *m* _____
schéma *m* _____

IV. *Lisez le texte A.*

Texte A. Réseau d'ordinateurs à la maison

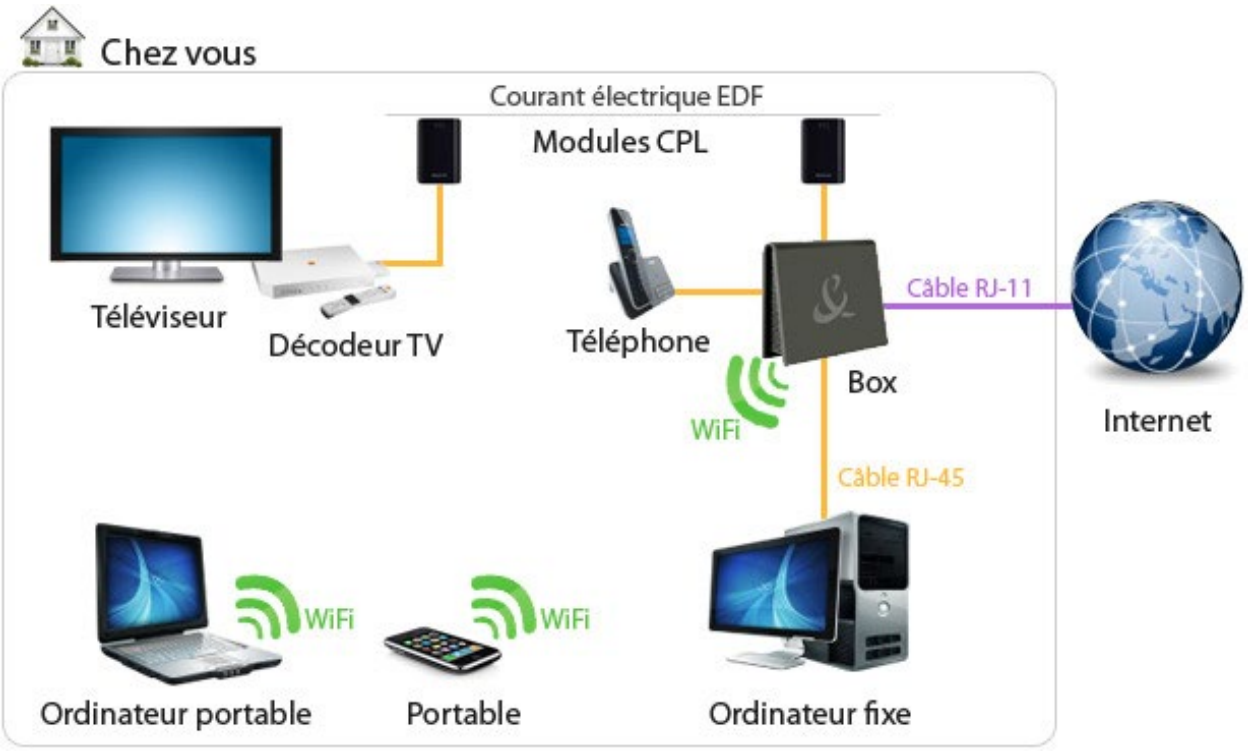
Qu'est-ce qu'un?

Si on a Internet chez soi avec un *routeur* (angl.: router) (Box), les ordinateurs y sont reliés afin d'avoir Internet. Ceci constitue donc un petit réseau d'ordinateurs connectés qui peuvent communiquer entre eux. Le réseau domestique permet notamment de partager des fichiers.

Le *réseau domestique* (angl.: HAN home area network), on dit également *réseau local* (angl.: LAN local area network), désigne donc toute l'installation informatique interconnectée chez soi.

Exemple type d'un réseau domestique

Le centre d'un *réseau domestique* est généralement le routeur qui permet une connexion à *Internet* à chaque membre de la famille. Voici le schéma typique d'une installation informatique à domicile.



Un réseau composé d'ordinateurs, mobiles, box...

Chaque *ordinateur* est relié au *routeur*, par un câble (*RJ-45*) ou sans fil (en *WiFi*). Pour rappel c'est le *routeur* qui s'occupe de distribuer la connexion *Internet* au *réseau domestique*.

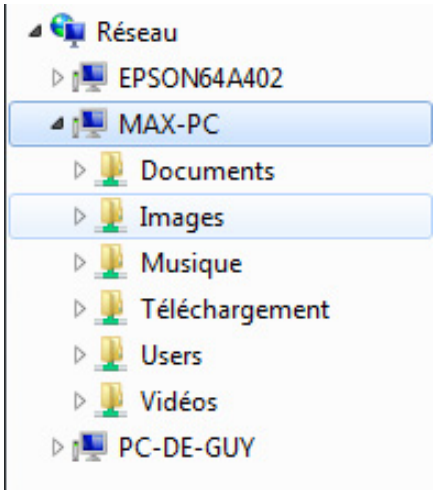
Communication entre les appareils et partage

Dans cette configuration, chaque appareil et ordinateur peuvent communiquer entre eux, car le *routeur* centralise tout le monde. L'*ordinateur portable* va donc pouvoir communiquer avec l'*ordinateur* fixe.

Les *ordinateurs* peuvent partager leurs données sur le *réseau* (angl.: Network). Si l'*ordinateur* fixe partage sa musique, l'*ordinateur portable* va pouvoir y accéder depuis le *réseau*!

Sur *Windows 7*, on peut facilement accéder aux autres *ordinateurs* du *réseau* en ouvrant une *fenêtre* (par exemple en double cliquant sur le *dossier personnel* (angl.: My Documents) et en regardant sur la zone de gauche. Seuls les *ordinateurs* allumés apparaîtront dans la liste.

Parfois on ne voit que la ligne "*Réseau*", les *ordinateurs* n'apparaissent pas. Dans ce cas il faut venir positionner le curseur juste à gauche du mot "*Réseau*" et cliquer une fois sur la petite flèche, qui aura pour but de dérouler son contenu.



Chaque petite flèche adjacente à une ligne permet de dérouler ce que l'élément contient. Dans l'exemple illustré, "*Réseau*" contient 2 ordinateurs: Max et Guy, et une *imprimante réseau* (angl.: network printer) Epson.

En cliquant sur la petite flèche à côté de MAX-PC, la liste des *dossiers* actuellement partagés apparaît. Ces dossiers apparaissent également dans la zone principale de la *fenêtre*.

On pourra ensuite visiter le contenu de ces *dossiers*.

V. *Analysez le schéma et traduisez en russe les mots et les expressions inconnus.*

VI. a) *Trouvez dans le texte les phrases avec l'emploi du Gérondif.*

b) *Ouvrez les parenthèses et formez le Gérondif:*

1. Les ordinateurs reçoivent Internet (*relier*) _____ à un routeur.
2. (*Connecter*) _____ les ordinateurs peuvent communiquer entre eux.
3. (*Centraliser*) _____ tout le monde le routeur donne la possibilité de communiquer à tous les appareils du réseau.
4. L'ordinateur portable va pouvoir la musique (*y accéder*) _____ depuis le réseau.
5. On déroule le contenu de la ligne "Réseau" (*cliquer*) _____ sur la flèche à côté de cette ligne.

VII. *Traduisez en français:*

иметь доступ к интернету, подключенные компьютеры, обмениваться файлами, домашняя сеть (ЛВС), позволять подключение к Интернету, быть подключенным без проводов, централизировать все, с помощью маршрутизатора, обмениваться данными по сети, получить доступ из сети, делать двойной щелчок, появляться в списке, поместить курсор, раскрыть / сделать видимым содержимое, список папок, главная зона.

VIII. *Vrai ou faux:*

1. Les ordinateurs sont connectés à l'aide d'un routeur.
2. Le réseau d'ordinateurs ne peut pas permettre de partager des fichiers.
3. Le routeur doit joindre tous les ordinateurs par un câble.
4. Grâce au routeur l'ordinateur portable communique avec l'ordinateur fixe à domicile.
5. Windows 7 permet d'accéder facilement aux autres ordinateurs du réseau.
6. Si on ouvre le dossier personnel de Windows, les ordinateurs du réseau domestique apparaissent absolument dans la liste.
7. La petite flèche juste à gauche du mot "Réseau" est nécessaire pour dérouler son contenu.

IX. *Posez les questions en employant les interrogatifs entre parenthèses:*

1. Les ordinateurs communiquent entre eux. (Quand) _____
_____
_____

2. Le centre d'un réseau domestique est le routeur. (Qu'est-ce qui) _____
_____
_____

3. Chaque ordinateur est relié au routeur. (Comment) _____
_____
_____

4. Les ordinateurs peuvent partager leurs données. (De quelle façon) _____
_____

_____

5. On peut facilement accéder aux autres ordinateurs du réseau. (A l'aide de quoi) _____
_____
_____

6. Il faut faire un double-clic sur le dossier personnel. (Pourquoi) _____
_____
_____

7. La liste des dossiers actuellement partagés apparaît. (Quand) _____
_____
_____

X. *A l'aide du schéma et du contenu du texte expliquez en français l'installation d'un réseau informatique typique et le principe de son fonctionnement.*

2.3. LOGICIEL

EXERCICES

1. Lisez et retenez les termes spéciaux donnés ci-dessous:

un analyste	аналитик (специалист по анализу операций)
un avantage	преимущество
un calcul	вычисление; расчет; счет; подсчет
une codification	кодирование; шифрование
un domaine	область; зона; диапазон
une demande de traitement	запрос на обработку (информации)
un ensemble de programmes	комплект программ
une facturation	выписывание счета (фактуры);
une gestion	управление; руководство; администрация
une instruction	команда; инструкция; программа; обучение
un langage machine	машинный язык; набор машинных команд
un logiciel	программное обеспечение
un logiciel d'application	прикладное программное обеспечение
un matériel disponible	аппаратура; оборудование
une missile	ракета
un ordinateur	электронно-вычислительная машина (ЭВМ)
une paie du personnel	зарплата служащим
un programmeur	программист; программатор
un système d'exploitation	операционная система
un système électronique	электронная система
un utilisateur	пользователь

2. Lisez et retenez les locutions données ci-dessous:

avoir recours à (qch)	прибегать к (чему-либо)
c'est ce qui	это то, что
de même que	так же как

de telle sorte que	таким образом, чтобы
en même temps que	в то время как
en quelque sorte	некоторым образом; в некотором роде
faire fonctionner la machine	заставить машину работать
il existe	существует
il est rare que	редко бывает так, что
il semble que	кажется, что
traiter le problème	рассматривать проблему; решать задачу

3. Trouvez dans le texte A, recopiez et traduisez par écrit sans consulter le dictionnaire tous les mots internationaux.

4. Répétez le futur simple. Trouvez dans le texte A, recopiez et traduisez par écrit tous les groupes de mots contenant les verbes au futur simple.

5. Répétez les pronoms relatifs. Trouvez dans le texte A, recopiez et traduisez par écrit tous les groupes de mots contenant les pronoms relatifs.

6. Répétez le gérondif. Trouvez dans le texte A, recopiez et traduisez par écrit une partie de la phrase contenant le gérondif.

7. Répétez le superlatif. Trouvez dans le texte A, recopiez et traduisez par écrit une phrase contenant le superlatif.

Texte A

LE LOGICIEL

Outre les éléments qui constituent le matériel (hardware en américain), l'ensemble des programmes dont on dispose sur un ordinateur constitue le logiciel (software en américain). Il existe deux sortes de logiciels: les logiciels d'application qui sont des programmes décomposant les opérations à réaliser pour traiter le problème que l'utilisateur veut résoudre (facturation, paie du personnel, calcul de trajectoire d'un missile) et le système d'exploitation, qui est constitué par l'ensemble des programmes destinés à faire fonctionner la machine.

Le système d'exploitation est vendu avec l'ordinateur, il est spécifique de cet ordinateur. Les logiciels d'applications sont généralement réalisés par les utilisateurs ou par les sociétés de service auxquelles ils ont recours.

La distinction entre le travail de l'utilisateur, celui de l'analyste et celui du programmeur n'est pas toujours aussi nette: des utilisateurs ne savent pas formaliser leurs demandes de traitement et la première analyse est alors faite surtout par l'analyste. C'est ce qui se passe très souvent dans le domaine de la gestion notamment. Cependant, cette méthode n'est pas la meilleure car un analyste ne connaît pas aussi bien le problème que l'utilisateur. De même, il est rare que l'analyste termine l'analyse: très souvent, c'est le programmeur qui se charge de ce travail car, en même temps qu'il codifie, il peut adapter le traitement demandé au matériel disponible. Il semble d'ailleurs souhaitable (en attendant le jour où l'utilisateur pourra se passer du concours de l'informaticien) de séparer ce travail en deux parties seulement: l'une réservée à l'utilisateur: l'analyse; l'autre réalisée par un analyste-programmeur: la fin de l'analyse

et la codification. Cela présente l'avantage de laisser l'utilisateur déterminer complètement son application.

Après l'analyse, il faut formuler chaque instruction de telle sorte qu'elle provoque le fonctionnement voulu dans le système électronique: en quelque sorte il faut traduire une langue (par exemple, le français) en langage-machine.

8. Traduisez par écrit les questions ci-dessous:

1. Qu'est-ce que constitue le logiciel?
2. Quelles sortes de logiciels existe-il?
3. Qu'est-ce que le logiciel d'application?
4. Qu'est-ce que le système d'exploitation?
5. Par qui sont réalisés les logiciels d'application?
6. Pourquoi la première analyse est faite surtout par l'analyste?
7. Pourquoi cette méthode n'est pas la meilleure?
8. Qu'est-ce que doit faire l'analyste-programmeur?
9. Comment faut-il formuler chaque instruction ?

9. *Répondez par écrit aux questions données ci-dessus.*

10. *Traduisez en français par écrit les définitions ci-dessous:*

Программное обеспечение - комплекс, обеспечивающий управление машиной и выполнение всех необходимых задач, связанных со сбором, хранением, обработкой, передачей и выдачей информации. Программное обеспечение электронной машины состоит из трех основных групп: операционной системы, системных программ и прикладных программ.

Операционная система служит основной частью программного обеспечения электронной машины и почти вся располагается в ее оперативной памяти. Операционная система осуществляет управление функционированием машины, в том числе выполнением системных и прикладных программ. Другими словами, операционная система осуществляет управление работой всей информационной системы.

Системные программы расширяют возможности операционной системы, обеспечивают работу машины в различных режимах, управляя каким-нибудь информационным процессом, например, поиском информации. Системные программы управляют прикладными программами, обеспечивают взаимодействие с терминалами, включая передачу команд, заданий, контроль передачи информации, исправление ошибок и т.д.

Прикладные программы выполняют информационные задачи для нужд пользователей. Пользователями называются лица, взаимодействующие с электронной машиной с целью обработки информации, необходимой им в своей работе. В связи с разнообразием задач обработки информации (планирование производства, диагностика заболеваний, управление научным экспериментом и т.п.) объем прикладных программ очень велик и во много раз превосходит размеры операционной системы и системных программ. Все прикладные программы хранятся во внешней памяти машины. Прикладные программы создаются во всех областях человеческой деятельности.

TRAVAIL INDIVIDUEL

11. *Lisez et retenez les termes spéciaux donnés ci-dessous:*

le chercheur	исследователь (ученый); искатель
le compilateur	трансформирующая программа
le constructeur	разработчик; производитель
la création	создание; разработка; проектирование
une erreur	ошибка; погрешность
une instruction	команда; инструкция; программа (действий)
le langage conventionnel	язык диалога
le langage de commande	управляющий язык; язык команд
le langage de programmation	язык программирования
le langage machine	машинный язык; набор машинных команд
la programmation	программирование
le programme de la machine	машинная программа; программа для ЭВМ
la numération binaire	двоичная система счисления
la suite de nombres	последовательность чисел
la suite d'instructions	последовательность команд
le système d'exploitation	операционная система
la valeur	значение; величина, значимость

12. Lisez et retenez les locutions données ci-dessous:

cela veut dire	это значит
en effet	действительно
en réalité	на самом деле
faire partie de (qch)	входить (во что-либо); быть составной частью
il existe	существует
il faut	надо; необходимо

13. *Posez des questions aux extraits du texte B:*

1. Écrire des instructions en langage machine cela veut dire écrire une suite de nombres en numération binaire.
2. On écrit les programmes dans un langage conventionnel qui doit être ensuite traduit en langage machine.
3. Les programmes compilateurs sont fourni avec le matériel par le constructeur.
4. Il existe deux sortes de langages : les langages de commande et les langages de programmation.
5. La machine ne peut rien pour supprimer le travail de chercheur.

14. Traduisez par écrit le texte B donné ci-dessous:

Texte B

LANGAGE ET PROGRAMMATION

Le langage machine n'utilise que deux valeurs: 0 et 1. Écrire des instructions en langage machine cela veut dire écrire une suite de nombres en numération binaire. Réaliser les programmes en langage machine serait très long, très difficile et les erreurs seraient nombreuses. En réalité on écrit les programmes dans un langage conventionnel qui doit être ensuite traduit en langage machine. Pour réaliser cette traduction on emploie des programmes traducteurs encore appelés compilateurs. Ces programmes sont fournis avec le matériel par le constructeur et font partie du système d'exploitation.

Il existe deux sortes de langages: les langages de commande et les langages de programmation. Un langage de commande est un langage par lequel on demande à la machine d'exécuter un travail donné. Un langage de programmation permet d'exprimer un problème de telle sorte qu'il puisse être traité par la machine.

Le travail de chercheur reste un travail essentiellement humain et la machine ne peut rien pour le supprimer: il faut en effet découvrir les problèmes, les analyser et décomposer leur résolution en une suite d'instructions appelée par les informaticiens: programme de la machine. Ce n'est qu'une fois cette décomposition réalisée, que la machine peut intervenir, car le travail est alors purement mécanique: il n'y a pas création. La machine est un ordinateur.

2.4. LANGAGES DE PROGRAMMATION

EXERCICES

1. Lisez et retenez les termes spéciaux donnés ci-dessous:

une abréviation	сокращение; сокращенное обозначение
une administration	управление
une application commerciale	применение (использование) в торговле
une application scientifique	применение в науке
le calcul mathématique	математический расчет
le calcul numérique	цифровое вычисление
la dénomination	обозначение; присвоение имени
le descendant	преемник; потомок
la diffusion	распространение; передача
les données alphabétiques	буквенные данные
les données numériques	цифровые данные; цифровая информация
le fichier informationnel	информационный файл
la gestion	управление; руководство; администрация
le langage conventionnel	условный язык
le langage de haut niveau	язык высокого уровня
le langage machine	машинный язык; набор машинных команд
le staticien	статистик
un usage	применение; использование; употребление

2. Lisez et retenez les locutions données ci-dessous:

à partir de	от (чего-либо); из (чего-либо)
en honneur de	в честь (кого-либо)
en vue de (faire qch)	с целью (сделать что-либо)
par ailleurs	в другом месте; сверх того; кроме того
plus ou moins	более или менее
traiter les données	обрабатывать данные

3. Trouvez dans le texte, recopiez et traduisez par écrit sans consulter le dictionnaire tous les mots internationaux.

4. Répétez le passé composé. Trouvez dans le texte, recopiez et traduisez par écrit tous les groupes de mots contenant les verbes au passé composé.

5. Répétez le pronom relatif dont. Trouvez dans le texte, recopiez et traduisez par écrit une phrase contenant le pronom dont.

6. Répétez la forme passive. Trouvez dans le texte et traduisez par écrit les verbes à la forme passive.

7. Répétez le superlatif. Trouvez dans le texte et traduisez par écrit les phrases avec le superlatif.

LES LANGAGES

Les langages de programmation se divisent eux-mêmes en deux groupes: le langage machine que nous avons déjà parlé et qui est propre à chaque machine et les langages conventionnels dits «de haut niveau» qui sont utilisables sur toutes les machines du moins en principe. Il y a plusieurs langages conventionnels dont les principaux sont décrits ci-dessous.

On distingue six générations de langages de programmation. Les langages des générations 1 et 2 sont appelés langages de bas niveau (orienté machine) alors que les langages des générations 3 à 6 sont appelés langages de haut niveau (orienté problème). Les langages de haut niveau sont indépendants du processeur ce qui n'est pas le cas des langages de bas niveau.

Le terme «langage de haut niveau» n'implique pas que ce type de langage soit supérieur à un langage de bas niveau. La notion de profondeur désigne la distance du langage par rapport au travail de la machine. Le langage de haut niveau a un plus haut niveau d'abstraction que les langages machines.

Le langage machine et le langage d'assemblage sont les archétypes de langages de bas niveau, puisqu'ils permettent de manipuler explicitement des registres, des adresses mémoires, des instructions machines.

Les langages de bas niveau sont utilisés dans: l'informatique embarquée, industrielle, la création de pilotes, de systèmes d'exploitation, voire le développement de jeux vidéo. Dans tous les autres domaines, l'utilisation des langage de bas niveau est contre-productive, parce qu'elle demande au programmeur de consacrer beaucoup plus d'attention, de temps de programmation, et entraîne donc des coûts de production plus élevés, pour réaliser un code équivalent.

En programmation informatique, un langage de haut niveau est un langage de programmation orienté autour du problème à résoudre, qui permet d'écrire des programmes en utilisant des mots usuels des langues naturelles (très souvent de l'anglais), ce qui facilite et vulgarise l'écriture des programmes, et des symboles mathématiques familiers. Ils sont généralement indépendants de la machine: le même programme pourra être utilisé tel quel sur plusieurs types d'ordinateurs) – quoique les programmes puissent également être conçus pour un système d'exploitation en particulier. Les langages de haut niveau sont apparus dans la seconde moitié des années 50 (Fortran en 1954, Lisp et Algol en 1958, COBOL en 1959).

Bas niveau

Génération 1

- Langage machine dépendant du processeur
- Suite d'instructions binaires directement introduites (programmation directe) dans la mémoire du processeur
- Les instructions du processeur sont appelées code opérationnel Code opérationnel- Intel pentium- Motorola 6800

Génération 2

- Même jeu d'instructions que le langage machine, mais sous forme symbolique (mnémoniques) plus compréhensible pour l'homme
- Les instructions sont converties (programmation indirecte) en langage machine par un programme (assembleur)

Haut niveau

Génération 3

- Langages indépendants du processeur
- Proches des langues parlées (anglais)
- Langages procéduraux, descriptions des opérations à effectuer pour résoudre un problème

Langages: C, Pascal, Fortran (**For**mula **Tran**slation), Cobol (**Co**mmon **B**usiness **O**riented **L**anguage), Basic

Génération 4

- Langages descriptifs
- Description de ce que l'on désire faire mais pas de la manière de le faire
- Très fortement lié à un domaine (base de données, tables de calcul) Langages: Uniface, Informix, Oracle, Lotus

Génération 5

- Langages descriptifs pour la programmation de systèmes experts Langages: Prolog

Génération 6

- Orienté objet
- Toutes les informations nécessaires à la résolution d'un problème sont réunies dans un objet

Langages: Ada, C++, C#, Delphi, Eiffel, Java, Object Pascal, PHP, Python, Smalltalk

C + + est bien adapté pour les grands projets, car il a une structure orientée objet. Les gens peuvent collaborer sur un programme en le divisant en plusieurs parties et ayant un petit groupe ou même un travail individuel sur chaque partie. La structure orientée objet permet également de code pour être réutilisé beaucoup, ce qui peut réduire le temps de développement. C + + est aussi un langage assez efficace - bien que de nombreux programmeurs C seront en désaccord.

C est un langage populaire, en particulier dans la programmation de jeux, car il n'a pas l'emballage supplémentaire de l'orienté objet C + +. Les programmeurs utilisent C, car il rend les programmes un peu plus rapide et plus petit que les programmes écrits en C + +. Vous pourriez vous demander, cependant, si cela vaut la peine de renoncer à la réutilisation de C + + pour obtenir la faible augmentation des performances avec C, surtout quand C + + peuvent être rédigé dans un style de programmation C.

Pascal est d'abord une langue d'enseignement. Peu de programmes industriels sont écrits en Pascal. Pascal a tendance à utiliser des mots clés au lieu d'accolades de type C et des symboles, il est donc un peu plus facile pour les débutants à comprendre que des langages comme C + +. Pourtant, tout le monde ne pense Pascal est juste pour les écoles. Borland, l'énorme entreprise de logiciels de compilation, a poussé Delphi comme un langage de programmation de qualité industrielle. Delphi est une version orientée objet de Pascal.

Fortran est un programme à coup de chiffres, et il est encore utilisé par les scientifiques parce que la langue permet variables de n'importe quelle taille jusqu'à la

limite de mémoire de la machine. Fortran est particulièrement pratique pour les ingénieurs, qui ont à modéliser mathématiquement et calculer des valeurs de haute précision. Fortran, cependant, n'est pas aussi souple que C ou C + +. Programmation en Fortran est rigide, avec des règles strictes sur les espaces et la mise en forme, ce qui rend parfois la lecture de programmes Fortran difficile.

Java est un langage multi-plate-forme qui est particulièrement utile dans les réseaux. Bien sûr, le plus célèbre utilisation de Java est sur le web, avec les applets Java, mais Java est également utilisé pour construire des programmes multi-plateforme qui se retrouvent seuls. Comme il ressemble à C + + dans la syntaxe et de la structure, de l'apprentissage Java est généralement assez facile pour la plupart des programmeurs C + +. Java offre les avantages offerts par la programmation orientée objet, comme la réutilisation et, d'autre part, il peut être difficile d'écrire du code très efficace en Java et Swing, son interface utilisateur principale, est notoirement lent.

Perl était à l'origine un langage de gestion de fichiers pour Unix, mais il est devenu bien connu pour son utilisation dans la programmation CGI. CGI (Common Gateway Interface) est un terme pour les programmes que les serveurs Web peuvent exécuter pour permettre aux pages Web des fonctionnalités supplémentaires. Perl est grand avec une expression régulière pattern matching, qui est une méthode de recherche de texte. Perl peut être utilisé pour les bases de données et d'autres fonctions de serveur utiles, et il est facile de ramasser les bases si vous avez de l'expérience dans un langage impératif. Services d'hébergement Web préfèrent Perl sur C + + comme langage CGI parce que les hébergeurs peuvent inspecter les fichiers de script Perl, car ils sont juste des fichiers texte, tandis que C + + est compilé, de sorte qu'il ne peut pas être inspecté pour code potentiellement dangereux.

PHP est un langage commun pour la conception web qui est parfois utilisé comme un langage de script * nix. PHP est conçu pour le développement rapide de sites Web, et par conséquent contient des fonctionnalités qui font qu'il est facile de relier les bases de données, de générer des en-têtes HTTP, etc. Comme un langage de script, il contient un ensemble relativement simple de composants de base qui permettent au programmeur d'obtenir rapidement de la vitesse, même si elle ne possède plus de fonctionnalités sophistiquées orientées objet.

LISP est un langage fonctionnel utilisé principalement dans la recherche informatique. LISP est inhabituel en ce qu'il magasine (presque) toutes les données dans des listes, qui sont comme des tableaux, mais sans les numéros d'index. La syntaxe des listes est très simple, le rendant facile pour les programmeurs de mettre en œuvre des structures complexes.

Bien sûr, il y a encore beaucoup, beaucoup de langues qui ne sont pas abordées, quelques principaux sont Scheme Une, Prolog, Tcl, Python, COBOL, Smalltalk et C#. Les différents langages de programmation ont leurs avantages et leurs inconvénients, et de choisir le langage approprié pour la tâche est souvent une étape importante dans le processus de développement d'une application ou d'un programme.

8. Traduisez en français par écrit les définitions ci-dessous:

Язык программирования - это определенный набор терминов и правил, управляющих способом и последовательностью соединения символов в осмысленные сообщения; предназначен для описания совокупности инструкций, выполнение которых обеспечивает правильное решение требуемой задачи.

Язык высокого уровня - язык программирования, характеризующийся высоким уровнем обобщения понятий, соответствующих некоторой области применения и позволяющий лаконично и емко определить задание электронной машины в терминах, близких к используемым в профессиональной деятельности людей.

Микропроцессор - часть компьютера, представляющая собой миниатюрное электронное устройство, выполненное на одной или нескольких больших интегральных схемах (БИС). Микропроцессор обрабатывает информацию и выполняет функции управления.

9. Faites par écrit un exposé bref sur le sujet du texte lu en russe et en français.

2.5. TECHNOLOGIES INFORMATIQUES

1. Lisez le texte, traduisez les mots écrites en gras:

L'INFORMATIQUE

• **Un informaticien** travaille dans **l'informatique** (= tout ce qui concerne les ordinateurs). On **informatise** par exemple un bureau; on encourage **l'informatisation** des bureaux. **Le programmeur fait de la programmation** = il **établit des programmes** informatiques.

• **L'outil informatique** permet **d'introduire,** de **saisir,** de **stocker des infos; l'introduction, la saisie, le stockage** permettent d'établir par exemple **une base de données.** On peut aussi **se brancher sur** un réseau ou consulter **une banque de données.**

• **L'unité centrale** contient ce qui fait fonctionner l'ordinateur **(le système, la mémoire)** et **le périphérique** constitue le complément de l'ordinateur **(une imprimante, une disquette, un scanner, un CD-Rom...).** Si les ordinateurs sont **compatibles,** s'il y a **compatibilité,** ils peuvent être **connectés** les uns aux autres, **la connexion** est possible.

• Grâce au **modem,** on peut **transmettre** des données (texte, image, etc.), **des fichiers,** d'un ordinateur à un autre. **La transmission** se fait par l'intermédiaire du téléphone.

• Grâce à **la configuration** de mon ordinateur, je peux **imprimer** des textes sur toutes les imprimantes de l'entreprise.

• La plupart des utilisateurs ont **un code d'accès (= un mot de passe),** c'est-à-dire un numéro strictement confidentiel qui leur autorise l'accès à un réseau.

• **Le «grand public»** apprécie **les jeux interactifs,** où le public peut intervenir.

• Un logiciel peut avoir **un bogue,** et un système peut être atteint par **un virus,** ce qui entraîne de graves problèmes de fonctionnement.

• Depuis des années, **des pirates** copient illégalement **des logiciels** (= ils **piratent des programmes): le piratage** informatique est interdit.

2. Vrai ou faux?

1. Un informaticien travaille dans l'informatisation.
2. Le système fait partie de l'unité centrale.
3. Le modem permet de consulter une banque de données.
4. On peut pirater une configuration.

5. La connexion est possible entre deux ordinateurs compatibles.
6. Un programmeur s'occupe de la transmission des données.
7. On peut informatiser un réseau.

3. Complétez les phrases.

- Elle hésite entre deux _____ : une imprimante laser ou un scanner.
- J'ai oublié mon _____ _____ , je ne peux plus accéder au réseau!
- Les ordinateurs de ces deux marques concurrentes ne sont pas _____.
- Comment fait-on pour se _____ sur le réseau?
- Pour faire sa recherche, il doit consulter une _____ _____ _____.
- Je suis sûr que mon collègue n'a pas acheté ce logiciel, il l'a _____.
- _____ _____ _____ utilise de plus en plus les ordinateurs.
- Nous avons pu _____ des fichiers grâce à notre nouveau modem.

4. Devinez de qui on parle.

- Il travaille dans l'informatique. _____
- Il fait de la recherche. _____
- Il fait de la programmation. _____
- Il utilise un ordinateur par exemple. _____
- Il est spécialiste d'une science. _____
- Il a inventé quelque chose. _____
- Il copie illégalement des logiciels pour les vendre. _____

5. Choisissez les termes possibles.

- Cet ordinateur est *fiable / informatique / compatible / opérationnel.*
- Je peux *saisir / transmettre / conduire / introduire / accéder / régler* des données.
- Ce nouvel appareil est *une régression / une découverte / une révolution / en état* de *marche / une expérimentation.*
- Ce service administratif est *équipé / expérimenté / informatisé / modernisé / piraté / robotisé / réglé.*

6. Posez les questions sur le contenu du texte.

7. Lisez le texte suivant:

Nouvelle technologie informatique: tout ce que vous devez savoir

La nouvelle technologie informatique est un concept très large. En fait, il couvre de nombreux domaines de connaissances, tels que l'informatique (tous ses départements connus, par exemple l'informatique en gestion, les télécommunications, les mathématiques et d'autres domaines dans lesquels il existe des outils et des technologies liés au traitement de l'information). En effet, le service informatique est impliqué dans l'acquisition, la collecte, le traitement et la distribution d'informations par le biais d'appareils électroniques tels que les ordinateurs, les téléphones, la radio et la télévision. Quels est alors l'apport de la nouvelle technologie informatique dans la

société et au quotidien? Découvrez la réponse à cette préoccupation à la suite de ce guide ultime.

Qu'est-ce que la nouvelle technologie informatique?

La nouvelle technologie informatique au sens large est un ensemble de mesures spécifiques (nous distinguons ici les équipements et appareils, tels que les ordinateurs ou les réseaux informatiques). En plus, les outils (logiciels), ainsi que la technologie (par exemple les télécommunications). Par conséquent, il couvre à la fois l'informatique et la communication. Comme l'informatique s'occupe de la création de nouveaux produits informatiques, elle constitue une sorte de base pour la technologie de l'information, qui à son tour est une combinaison d'applications informatiques et de techniques de communication.

L'informatique dans l'industrie des TI

L'informatique utilise les moyens et les méthodes de l'informatique à grande échelle pour résoudre les problèmes de la vie quotidienne. En plus de cela, il permet aux gens de participer activement à la société de l'information. On peut affirmer que la base de toutes les activités, par exemple en science ou en économie, est la combinaison de l'informatique et des techniques de communication. Aujourd'hui l'industrie informatique est actuellement l'un des secteurs à la croissance la plus rapide de l'économie. En effet, cette croissance est due à la demande de solutions informatiques, à l'émergence de nouvelles technologies (par exemple, la technologie mobile). Ajoutons également à ces points, les investissements continus dans ce secteur. Par conséquent, les spécialistes dotés de compétences technologiques sont actuellement des leaders sur le marché du travail.

8. Faites l'annotation de ce texte en français.

9. Traduisez par écrit le dernier alinéa du texte.

2.6. SÉCURITÉ INFORMATIQUE

I. *Traduisez sans dictionnaire les mots et les expressions suivants:*

a) le réseau, l'accès à Internet, l'utilisateur, les données, les fichiers, les systèmes d'information, l'administrateur, le stockage, la structure, la même chose, jouer le rôle, appeller, travailler, relier, gérer, seul, chaque;

b) центр, тепло, система, комната, позволять, двойной, информационный, много, часто.

II. *Lisez et retenez les mots donnés:*

a) baies (pl f) de stockage	– массивы хранения
configuration (f)	– конфигурация, управление
coût (m)	– стоимость, расходы
document (m) partagé	– общий документ
droit (m)	– право
employé (m)	– сотрудник, служащий
entreprise (f)	– предприятие
équipe (f)	– команда
mail (m)	– электронная почта
mot (m) de passe	– пароль

niveau (m) – уровень
nom (m) d'utilisateur – имя пользователя
partage (m) de fichiers – файлообменник
patron (m) – глава, босс
personne (f) en charge de – лицо, ответственное за
responsabilité (f) – ответственность, обязанность
salle (f) des serveurs – серверная комната
sauvegarde (f) – сохранение, резервное копирование
serveur (m) – сервер
service (m) – служба, отдел
b) centraliser – сосредоточивать
lâcher – замедлять темп
prendre le relais – принимать эстафету (смену)
c) authentifié – проверенный на подлинность
climatisé – с кондиционированным воздухом
collaboratif – совместный
productif – производительный
d) forcément – обязательно
via – через, посредством

III. *Des verbes donnés formez les participes passés et les participes présents et traduisez-les en russe:*

appeller _____
connecter _____
exister _____
générer _____
gérer _____
jouer _____
partager _____
permettre _____
prendre _____
relier _____
représenter _____
stocker _____
travailler _____
venir _____

IV. *Lisez le texte A.*

Texte A. Comment fonctionne l'informatique en entreprise

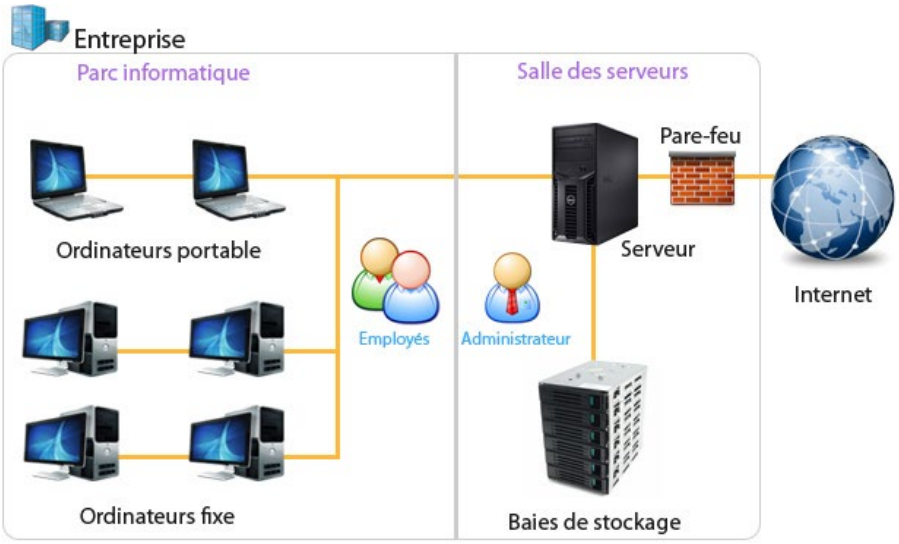
Un réseau en entreprise, pour quoi faire ?

Le réseau d'entreprise permet de relier chaque ordinateur entre eux via un serveur qui va gérer l'accès à Internet, les mails, les droits d'accès aux documents partagés et le travail collaboratif. Chaque utilisateur du réseau se connecte avec un nom d'utilisateur et un mot de passe, et il est authentifié par le serveur. L'utilisateur peut accéder à ses données et au partage de fichiers.

Le *réseau* en entreprise permet à l'entreprise de centraliser ses données, de travailler en équipe de manière productive.

Schéma type d'un réseau d'entreprise

Dans une entreprise il existe une hiérarchie au niveau des employés. C'est la même chose au niveau des *ordinateurs*: un *ordinateur* va jouer le rôle du patron, on l'appelle le *serveur* (angl.: server) d'entreprise. C'est une machine plus puissante que les autres qui a beaucoup de responsabilités. Ce *serveur* est géré par le *service des systèmes d'information* (SSI) (angl.: IT department) ou le service informatique. La personne en charge de ce *serveur* est l'*administrateur* (angl.: administrator) qui est le seul à avoir accès à la salle des *serveurs*.



Le *serveur* est au centre de la configuration d'un *réseau d'entreprise* (angl.: enterprise private network, LAN local area network). Tous les *ordinateurs* de l'entreprise y sont reliés. Les baies de stockage permettent la sauvegarde des données informatiques et sont gérées par le *serveur*.

Souvent le *serveur* est présent en double: le deuxième prend le relais si le premier venait à lâcher. Ils sont stockés dans une pièce climatisée car ils génèrent beaucoup de chaleur.

Les petites structures n'ont pas forcément de *serveur*, car cela représente un coût. Mais certaines petites entreprises ont tout de même au moins un système de sauvegarde de données.

V. *Analysez le schéma et traduisez en russe les expressions inconnus.*

VI. *Remplacez les lacunes par les mots convenables:*

l'accès, l'administrateur, ses données, son mot, son nom, l'ordinateur, les ordinateurs, une pièce, des serveurs, de stockage, un système, centraliser, gérées

1. Grâce au serveur _____ de l'entreprise sont reliés entre eux.
2. Le serveur gère _____ à Internet, les mails, le travail collaboratif.
3. Chaque employé a _____ d'utilisateur et _____ de passe.
4. L'utilisateur peut accéder à _____ et aux documents partagés.
5. Le réseau aide l'entreprise à _____ ses données.
6. Le serveur d'entreprise est _____ qui joue le rôle du patron.
7. _____ est le seul qui a accès à la salle _____.
8. Les serveurs sont stockés dans _____ climatisée.
9. Les baies _____ des données informatiques sont _____ par le serveur.

10. Les petites structures ont au moins _____ de sauvegarde de données.

VII. *Traduisez en français:*

1. Внутренняя сеть предприятия соединяет компьютеры между собой.

_____

2. Сервер проверяет каждого пользователя на подлинность.

_____

3. Сеть компании позволяет продуктивно работать в команде.

_____

4. Сервер управляется отделом информационных систем или информационных технологий.

_____

5. Только администратор имеет доступ в серверную комнату.

_____

6. Массивы хранения позволяют резервное копирование компьютерных данных.

_____

7. Небольшие компании имеют одну систему резервного копирования данных.

_____

VIII. *Poser les questions sur le contenu du texte vous-mêmes et répondez-y.*

IX. *A l'aide du schéma et du contenu du texte expliquez en français le fonctionnement de l'informatique en entreprise.*

X. *Retenez les mots donnés ci-dessous et lisez le texte B.*

a) agenda (m)	– ежедневник, записная книжка
antivirus (m)	– антивирус
carnet (m) d'adresses	– адресная книга
compte (m)	– учетная запись
courrier (m)	– почтовая корреспонденция
intrusion (f)	– вторжение
pare-feu (m)	– брандмауэр
site (m)	– сайт
b) autoriser	– разрешать, признавать законным
caler	– устраивать
effacer	– стирать, ликвидировать
être en mesure de	– быть в состоянии, уметь
prévenir	– предостеречь
protéger	– защищать, ограждать
récupérer	– восстановать, возвращать
repousser	– отражать, отклонять
rétablir	– восстанавливать
se prémunir	– предостерегать
c) extérieur	– внешний, наружный
indésirable	– нежелательный

privé – собственный, частный
récent – недавний
sécurisé – защищенный
d) à la portée de – в пределах досягаемости
en continu – непрерывно

Texte B. Missions du serveur

Le serveur en entreprise est un ordinateur plus puissant autonome qui va s'occuper du partage des fichiers, de faire des sauvegardes des données régulièrement, d'autoriser ou non l'accès à un ordinateur au réseau d'entreprise, gérer les mails, la connexion Internet et la sécurité informatique.

Rôle de sécurité

Car les données d'une entreprise sont privées et ne doivent pas tomber à la portée de tous, le *serveur* doit protéger l'entreprise des intrusions extérieures via *Internet*. Il ne laisse pas n'importe qui accéder au *réseau*, seules les personnes autorisées peuvent le faire. Le *serveur* est équipé d'un *pare-feu* (angl.: firewall) qui repousse les intrusions et un *antivirus* (angl.: antivirus) qui permet de se prémunir contre les attaques venant d'*Internet*.

Rôle de protection des données et sauvegardes

Le *serveur*, en collaboration avec la baie de stockage, a pour rôle de sauvegarder en continu les données générées par l'entreprise. Si un employé efface par erreur un document, ou qu'il y a un dysfonctionnement d'un *ordinateur*, le *serveur* est en mesure de rétablir le fichier perdu.

Les documents sont parfois sauvegardés en plusieurs exemplaires à plusieurs dates ce qui permet de récupérer un document datant de plusieurs jours en arrière, utile si la version la plus récente a été modifiée.

Gestion de la connexion à Internet et filtrage des sites

Le *serveur* reçoit et gère la connexion à *Internet*, qu'il distribue aux employés selon leurs autorisations. Le serveur peut également filtrer les sites, pour prévenir les visites des employés sur des sites de jeux par exemple.

Gestion des utilisateurs et autorisations d'accès au réseau

Chaque employé possède un compte sur son *ordinateur* (dont les identifiants sont donnés à chacun à son arrivée dans l'entreprise par le service informatique), sécurisé par un mot de passe. Lorsque l'*ordinateur* s'allume, le nom d'utilisateur et le mot de passe sont demandés par le *serveur*. C'est lui qui s'occupe d'authentifier l'utilisateur et lui autoriser l'accès à son poste de travail.

Gestion des mails, des agenda partagés, des contacts partagés

Le *serveur* gère également l'arrivée et l'envoi de *mails*. Il possède un filtre anti-spam lui permettant de filtrer le courrier indésirable. Dans certains cas le *serveur* gère aussi les agenda de chaque employé, les agenda communs (ce qui permet de caler une réunion facilement à toute son équipe et avoir un carnet d'adresses complet de l'entreprise).

XI. *Trouvez dans le texte les adjectifs qui conviennent aux noms suivants:*

l'ordinateur _____
la sécurité _____
l'intrusion _____
le filtre _____
la version _____
le service _____
le courrier _____
l'agenda _____
le carnet _____

XII. *Terminez les phrases:*

1. Le serveur en entreprise est ... .
2. Les données privées ne doivent pas tomber à ... .
3. Le serveur ne laisse pas n'importe qui ... .
4. Le pare-feu repousse ... et l'antivirus permet de ... .
5. Le serveur a les baies de stockage, qui ont pour rôle de ... .
6. La connexion à Internet est distribuée aux ... .
7. Le serveur peut prévenir les visites ... .
8. Le compte de chaque employé est sécurisé ... .
9. Le serveur est également celui qui s'occupe de ... .
10. Le filtre anti-spam permet au serveur de ... .

XIII. *Expliquez les expressions suivantes:*

protéger des intrusions extérieures
sauvegarder en continu les données
filtrer les sites
authentifier l'utilisateur

XIV. *Répondez aux questions:*

1. Qu'est-ce que le serveur en entreprise?
2. Que doit-il faire avec les données de l'entreprise?
3. Quelles données sauvegarde la baie de stockage?
4. A qui le serveur distribue-t-il la connexion à Internet?
5. Comment sécurise-t-on le compte de chaque employé?
6. Quand le serveur gère-t-il aussi les agenda?

XV. *Faites le plan du texte B et résumez-le d'après ce plan.*

XVI. *Consultez les mots donnés ci-dessous et lisez le texte C.*

a) assistance (f) – помощь, содействие
bug (m) – ошибка
compatibilité (f) – совместимость, согласованность
déplacement (m) – перемещение
faille (f) – дефект, уязвимость
inquiétude (f) – беспокойство
mise (f) à jour – обновление
b) bouger – двигаться, шевелиться

dépanner	– ремонтировать, исправлять
épargner	– сберегать, экономить
installer	– устанавливать
c) crypté	– закодированный, шифруемый
dispersé	– рассредоточенный
incompatible	– непоследовательный, несовместимый

Texte C. Autres fonctions du serveur

Installation de logiciels et Mise à jour du parc informatique

Tous les mois, des mises à jour de *Windows* sont distribuées automatiquement aux *ordinateurs* du monde entier reliés à *Internet* (système automatique de *mise à jour Windows*) et corrigent des failles de sécurité, des *bugs* ...

En entreprise c'est le *serveur* qui reçoit les mises à jour et les redistribue aux *ordinateurs* du réseau. L'*administrateur* choisit quelles mises à jour vont être faites ou non (pour des questions de compatibilité: si une mise à jour rend incompatible un *logiciel* professionnel, elle ne sera pas faite).

Le *serveur* peut également installer des *logiciels* sur les *ordinateurs* du *réseau* et gérer les *licences* d'utilisation.

Assistance à distance

Lorsqu'un employé a un problème d'ordre informatique, il prend contact avec le *service des systèmes d'information*. Une personne va prendre le contrôle de l'ordinateur à distance afin de le dépanner, lui épargnant un déplacement.

Lorsque ça arrivera, la souris commencera à bouger toute seule! Il n'y a aucune raison d'inquiétude!

Un réseau privé virtuel: VPN

Parfois l'entreprise est située sur plusieurs sites géographiques. Par exemple Paris, Toulouse et Grenoble. Dans ce cas il existe une technologie appelée *VPN*: réseau privé virtuel (Virtual Private Network en anglais).

VPN, pour Virtual Private Network (réseau privé virtuel) désigne un réseau crypté dans le réseau Internet, qui permet à une société dont les locaux seraient géographiquement dispersés de communiquer et de partager des documents de manière complètement sécurisée, comme s'il n'y avait qu'un local avec un réseau interne. Une connexion privée, cryptée et sécurisée passe par *Internet* pour relier les 3 sites.

Toutes ces technologiques ont pour but d'augmenter l'efficacité et la productivité d'une entreprise, de centraliser et partager les ressources, de sécuriser et sauvegarder les données.

XVII. *Traduisez en français:*

распределяться автоматически, получать обновления Windows, профессиональное программное обеспечение, пользовательская лицензия, удаленный контроль, виртуальная частная сеть, закодированная сеть, рассредоточенный географически, обмениваться документами, повысить производительность, защищать данные.

XVIII. *Finissez les propositions du point A par les propositions du point B d'après le sens du texte A:*

A.

1. Tous les ordinateurs du monde entier reliés à Internet ...

2. Le serveur redistribue les mises à jour ...
3. C'est l'administrateur qui choisit parmi les mises à jour ...
4. A l'aide du serveur on gère les licences d'utilisation et ...
5. Il n'y a aucune raison d'inquiétude quand ...
6. Un employé prend le contrôle de l'ordinateur à distance ...
7. Si l'entreprise est située sur quelques sites, ...
8. VPN désigne un réseau crypté, qui permet aux locaux géographiquement dispersés ...

B.

a) ... la souris commence à bouger toute seule.
b) ... de communiquer et de partager des documents entièrement sans aucun danger.
c) ... reçoivent automatiquement des mises à jour de Windows.
d) ... il existe une technologie qui s'appelle le réseau privé virtuel.
e) ... lorsqu'il a un problème d'ordre informatique.
f) ... celles qui vont être faites ou non.
g) ... on installe des logiciels sur les ordinateurs du réseau.
h) ... aux ordinateurs du réseau de l'entreprise.

XIX. *Faites l'annotation du texte C en français.*

XX. *Développez les sujets:*

1. Les mises à jour de Windows distribuées automatiquement corrigent …
2. Quand une personne a un problème d'ordre informatique ...
3. Il existe une technologie appelée VPN: réseau privé virtuel qui …

2.7. TÉLÉCOMMUNICATION

TELECOMMUNICATIONS

Depuis les années 50 du XX^{e} siècle, la France est entrée dans l'ère des télécommunications, c'est-à-dire de la transmission de l'information à distance.

De nouveaux équipements ont apparu: magnétoscopes, télévision par câble, fibres optiques, téléphone portable, micro-ordinateurs avec logiciels, Internet.

Ces nouvelles inventions facilitent les rapports humains, transforment la façon d'organiser la vie et le travail. Elles influencent l'activité dans tous les domaines, tels que la science, la formation, la santé, les transports, le commerce, la façon de communiquer.

Internet est entré dans la vie quotidienne. Il permet d'être au courant des actualités, de trouver, de télécharger et d'imprimer l'information nécessaire, d'entrer en contact avec les utilisateurs du même réseau.

On constate que:

- le nombre d'internautes dans le monde a dépassé un milliard;
- avec une moyenne de 12,7 heures passées en ligne chaque semaine, les Français figurent parmi les premiers utilisateurs d'Internet;
- chez les Européens de 16-24 ans, la télévision est pour la première fois reléguée à la deuxième place.

Quels usages les jeunes font-ils d'Internet, que représente-t-il dans leur vie quotidienne? Ce sont des questions aux quelles il est nécessaire de répondre. Chacun

utilise Internet en fonction de ses intérêts. En général, c'est l'occasion de se distraire, de s'instruire, de se faire des amis. Donc, Internet prend une part de plus en plus importante dans la vie sociale des jeunes. Le chat ou l'e-mail permettent de se créer plus facilement des contacts, de combler un vide chez les personnes isolées, de renforcer une amitié, par exemple, en se fixant facilement des rendez-vous ou en échangeant de nombreux fichiers (musiques, blagues). Il est à noter qu'une majorité d'internautes utilisent plusieurs pseudos en fonction du contexte. Grâce à cela, les jeunes sont peut-être plus conscients de la confiance très relative qu'il faut accorder aux informations qui circulent sur le web ou du fait qu'une personne peut très bien ne pas être celle qu'elle prétend.

Internet a aussi une place importante dans les relations familiales. Les jeunes sont généralement des internautes plus avertis que leurs parents. Cette situation conduit à un renversement des rôles souvent bénéfique. En effet, cela peut permettre de nouer des relations nouvelles avec les parents qui sont dans la position de l'apprenant et les jeunes ont ainsi l'occasion de leur transmettre un savoir-faire. Les parents ont par contre de nombreuses craintes vis-à-vis d'Internet pour leurs enfants. Dans beaucoup de cas (1), ils imposent donc des limitations dans l'utilisation de l'ordinateur (jeux vidéos, discussions sans fin avec les camarades) en essayant que cela ne soit pas aux dépens des bénéfices potentiels du web (ouverture sur le monde, source d'informations encyclopédiques, outil efficace pour l'apprentissage de leurs enfants).

La science a déjà fait beaucoup de progrès. Ce qui appa- raissait comme une fiction il y a encore peu de temps, devient réalité. Mais chaque invention peut être utilisée à des fins différentes. Quand on aura fait d'autres découvertes, il sera difficile de dire si elle apporteront à l'humanité de grands avantages ou des menaces considérables.

1. Запомните выражения со словом **cas** *m* – случай:

selon le cas	– в зависимости от обстоятельств
se mettre dans un mauvais cas	– попасть в затруднительное положение
c'est le cas de	– то же самое относится к
en aucun cas	– ни в коем случае
dans le cas contraire	– в противном случае
en tout cas	– в любом случае
en cas de = au cas où	– в случае, если
le cas échéant	– в случае необходимости

VOCABULAIRE

apparaître	– появиться, возникнуть
apprenant *m*	– обучаемый, ученик
apprentissage *m*	– обучение, учеба
aux dépens de	– в ущерб
averti,-e	– продвинутый, -ая
bénéfique	– благотворный
blague *f*	– шутка
combler un vide	– заполнить пустоту
crainte *f*	– опасение, страх
(se) distraire	– развлекать(ся)
en fonction de = selon	– в зависимости от
être au courant de	– быть в курсе

être conscient de – осознавать, отдавать себе отчет
fait *m* – факт
fibre *f* – волокно
fichier *m* – файл
fiction *f* – вымысел, фантазия
fin *f* – цель
formation *f* – профессиональная подготовка
imposer des limitations – установить ограничения
imprimer – распечатывать
internaute *m* – пользователь
utilisateur *m* d'Internet – пользователь
(s') instruire – обучать(ся)
logiciel *m* – программное обеспечение
magnétoscope *m* – видеомагнитофон
menace *f* – угроза
nouer – завязать
outil *m* = instrument *m* – инструмент
par contre – напротив, наоборот
prétendre – выдавать себя за
pseudo *m* – псевдоним
relégué, -e à – отброшенный, -ая на
renforcer – усилить
renversement *m* des rôles – перемена ролей
réseau *m* – сеть
savoir-faire *m* – умение, ноу-хау
télécharger – скачать
usage *m* = utilisation *f* – использование
vis-à-vis de = par rapport à – по отношению к

EXERCICES

1. Répondez aux questions:

1. A quelles fins utilisez-vous Internet?
2. Vous-êtes vous créé de nouveaux amis grâce à Internet?
3. Utilisez-vous plusieurs pseudos selon le cas?
4. Faites-vous toujours confiance à l'information circulant sur Internet?
5. Avez-vous appris à vos parents un nouveau savoir-faire?
6. Dans quels cas faut-il imposer des limitations d'accès à Internet?

2. Relevez dans le texte:

a) les exemples des avantages et des craintes liés à l'utilisation d'Internet;
b) les termes propres à l'informatique.

3. Reliez les termes anglais et français. Traduisez-les:

digital	navigateur
surf	page d'accueil
hacker	forum
joystick	spot
provider	en ligne

notebook	numérique
newsgroup	fouineur
password	manette de jeu
homepage	mot de passe
on line	naviguer
browser	bloc-notes électronique
videoclip	imprimer
print	fournisseur d'accès

4. a) Réécrivez ces phrases en bon français en remplaçant les termes anglais en italique. b) Comparez-les ensuite à la version proposée:

a) Elle alluma *son notebook*, mit en route *son browser* et se brancha sur le réseau pour se connecter à son *provider*, lire ses *mails*, consulter une *data-bank* et *surfer* sur le *Net*. Elle allait *recruter* un *e-business-manager* ayant un bon *know-how* dans ce domaine.

Il mit en marche son *PC* et composa son *login* et son *password*, la *homepage* de son *provider* s'afficha. Le *hard-disk* contenait une *data-base* confidentielle qu'il fallait protéger. Il lut ses *mails* et les *dispatcha* dans les *directories* de son *soft de messagerie*.

b) Elle alluma son bloc-notes électronique, mit en route son navigateur et se brancha sur le réseau pour se connecter à son fournisseur d'accès, lire ses messages, consulter une banque de données et naviguer sur la Toile**.** Elle allait embaucher un responsable du commerce électronique ayant un bon savoir-faire dans ce domaine.

Il mit en marche son micro-ordinateur et composa son nom d'utilisateur et son mot de passe, la page d'accueil de son fournisseur d'accès s'afficha. Le disque dur contenait une base de données confidentielle qu'il fallait protéger. Il lut ses messages et les répartit dans les dossiers de son logiciel de messagerie.

5. Parlez du nombre d'internautes dans les pays différents. Mettez <u>en</u> ou <u>au(x)</u>:

C'est ... Chine qu'il y a le plus grand nombre d'internautes – 180 millions, ... Etats-Unis on en compte 163 millions, ... Japon ce chiffre est de 60 millions. ... Allemagne et ... Grande-Bretagne ils sont au nombre égal – 37 millions, ... France il y en a 34 millions, ... Inde – 32 millions, ... Russie leur nombre est de 29 millions, ... Brésil ils sont 28 millions, ... Corée du Sud – 27 millions, ... Canada il y en a 22 millions et ... Italie on en trouve 21 millions.

6. Reliez le verbe au nom:

imposer	un vide
faciliter	des limitations
créer	les rapports
combler	un pseudo
renforcer	des contacts
utiliser	un savoir-faire
nouer	une amitié
transmettre	des relations

7. Reliez l'adjectif au nom:

une confiance	averti

une menace	bénéfique
un rôle	considérable
une vie	relative
un internaute	quotidienne
un bénéfice	efficace
un outil	potentiel

8. Traduisez:

1. Si vous êtes dans un mauvais cas, n'hésitez pas à me prévenir. 2. Agissez selon le cas, mais soyez prudent. 3. Mon ami sait se débrouiller, mais ce n'est pas mon cas. 4. En aucun cas, il ne doit pas être au courant de cette information. 5. Au cas où vous auriez des problèmes de communication, adressez-vous à votre fournisseur d'accès. 6. Le cas échéant vous devez suivre cet apprentissage. 7. En cas de renversement des rôles vous aurez les meilleures résultats. 8. Il faut être conscient de l'importance de ce phénomène, dans le cas contraire tu auras de graves problèmes vis-à-vis de tes partenaires.

9. Traduisez:

1. Мой друг – продвинутый пользователь, а я нет (это не мой случай), поэтому в случае затруднений я обращаюсь к нему. 2. В случае необходимости ты можешь использовать это программное обеспечение. 3. Согласны ли вы, что ни в коем случае нельзя накладывать ограничения на научные исследования? 4. Следуйте их советам, в противном случае вы не сможете им отправить этот файл. 5. В случае, если мы не получим ваше сообщение до вечера, мы будем действовать по обстоятельствам.

10. a) Lisez le texte:

Que peut-on faire sur Internet?

On peut trouver toutes sortes d'informations, grâce aux pages Web. En effet, tous ou presque tous les sujets y sont abordés soit par des professionnels, soit par des amateurs avertis. La consultation des pages Web se fait avec un logiciel qu'on appelle navigateur et qui est généralement gratuit. C'est Internet Explorer qui est aujourd'hui le plus utilisé.

On peut envoyer et recevoir des messages électroniques auxquels on peut joindre tous types de fichiers (documents, images, sons, vidéo…) mais ce qui compte, c'est la rapidité d'acheminement des messages. Il ne faut que quelques secondes à un message électronique pour parvenir à son destinataire, quel que soit l'endroit où il se trouve. Le courrier électronique est géré par un logiciel Outlook Express qui est intégré à Internet Explorer.

On peut télécharger des fichiers (programmes, mise à jour de logiciel, musique, bande annonce…).

On peut participer à des forums de discussion ou jouer en réseau avec d'autres internautes.

On peut faire ses courses dans des boutiques virtuelles.

b) Enumérez les fonctions d'Internet que vous utilisez le plus souvent.

11. Parlez de l'usage d'Internet dans:

a) la formation; b) les transports; c) le commerce; d) la science; e) la santé; f) la façon de communiquer.

TEXTES SUPPLEMENTAIRES

Texte A. Le multimédia et l'informatique

L'informatique et le multimédia se rapprochent de plus en plus pour créer de nouveaux appareils à tout faire.

Les disques durs externes multimédia

Le *disque dur externe* a pour rôle le stockage de données informatiques, souvent utilisé pour de la copie de sauvegarde ou transporter facilement un grand nombre de données. Un peu plus gros qu'une clé *USB*, le disque dur externe est capable de stocker autant de données qu'un ordinateur.

Aujourd'hui on voit également beaucoup de disques durs externes multimédia: ils ont le même rôle mais disposent d'une connectique variée qui permet de brancher le dispositif à un téléviseur afin de permettre d'écouter les musiques stockées dessus, et visionner photos et films.

Certains *disques durs* sont même équipés de *WiFi* pour communiquer sans fil avec les ordinateurs de la maison et partager des vidéos.

Les ordinateurs Médiacenter

Dans la même lignée, un ordinateur peut jouer le rôle d'un appareil entièrement consacré au multimédia: *Windows* propose son logiciel "Médiacenter" (en standard depuis *Windows* Vista) qui permet de lire musique, films et photo et se contrôle à la télécommande.

Si l'ordinateur est équipé d'une carte TV, on pourra même recevoir la télévision directement sur l'ordinateur, et même HD dans certains cas.

Les téléviseurs multimédia

Bientôt le téléviseur sera équipé de tout ça d'origine: certains téléviseurs proposent déjà une connexion *WiFi* (sans fil) vers les ordinateurs de la maison, un port *USB*, et même un *navigateur* (angl.: navigator) Internet, la possibilité de regarder via Internet des vidéos.

Texte B. Tablettes tactiles et ordinateurs ultraportables

Tablettes tactiles: l'informatique nomade de demain

L'année 2010 a été l'avènement des tablettes tactiles: de véritables ordinateurs ultra plat, dépourvus de clavier, dont l'écran est entièrement tactile. C'est *Apple* qui a ouvert la marche avec sa tablette iPad.

Google et *Microsoft* veulent bien entendu emboiter le pas avec leur modèle de tablette.

Ces tablettes permettent de faire tout ce que l'on fait habituellement sur un ordinateur ou presque, en se passant de la souris et du clavier. Tout se contrôle au doigt. On peut regarder des photos, envoyer des mails, voir des vidéos, naviguer sur Internet, écouter de la musique, jouer à des jeux et utiliser des logiciels de productivité (traitement de texte, gestion du temps...)

Les netbook: ordinateurs ultraportables

Les Netbook s'apparentent à des tous petits ordinateurs miniatures très facilement transportables. Ils permettent également de faire presque tout ce qu'il est possible de faire sur un ordinateur.

Le multimédia n'a plus de secret.

Texte C. Objets connectés

Les montres connectées

Véritable phénomène technologique: les montres connectées, de véritables petits ordinateurs nichés sur le poignet, constamment reliés sans fil. La montre sert, en plus d'afficher l'heure, à étudier votre activité physique quotidienne et vous donner vos objectifs. Elle vous notifiera de chaque nouvelle information (messages, appels, mails, relations sur les réseaux sociaux, prochain rendez-vous) et sont même capables de donner les instructions GPS pour aller à la destination. Pratique pour se déplacer dans une ville inconnue sans même sortir le téléphone de la poche.

Les drones

Aujourd'hui les drones sont légion, de toute forme ou toute taille, roulant, volant. Ces petits engins peuvent être pilotés grâce au téléphone portable en guise de télécommande. Les professionnels de l'image utilisent les drones pour filmer des plans aériens.

La maison connectée

La maison peut être aussi connectée! Les équipements domotiques sont désormais de plus en plus reliés à la connexion Internet. De cette manière on peut éteindre la lumière à distance, consulter les alarmes et également gérer la consommation énergétique. Ainsi donc on consommera d'énergie le moins possible et fera des économies.

РАЗДЕЛ КОНТРОЛЯ ЗНАНИЙ

Виды контроля

Контроль усвоения содержания программы представляет собой обобщение и систематизацию пройденного учебного материала по всем аспектам языка и видам речевой деятельности. Степень усвоения студентами практического курса «Иностранный язык» проводится в следующих формах.

Текущий контроль знаний осуществляется постоянно на всех практических занятиях:

1) по устным темам – в форме монологического высказывания, диалогов, беседы с преподавателем;
2) по текстам – в форме разработанных комплексных заданий, составления аннотаций и рефератов, выборочного письменного перевода;
3) по грамматике – в виде выполнения грамматических упражнений по изученным темам.

Промежуточный контроль предусматривает выполнение грамматических тестов, лексико-грамматических контрольных работ, тестов на аудирование; написание словарных диктантов, эссе, сочинений; пересказ и письменное изложение аудио- и видеотекстов; устные опросы/беседы по темам; презентация темы с использованием программы Power-Point.

Итоговый контроль знаний, умений и навыков студентов осуществляется в форме зачетов и экзаменов.

Зачёт выставляется по результатам выполнения студентом всех требований к практическим занятиям, предусмотренных программой текущего семестра.

Экзамен включает:

1. Чтение и письменный перевод оригинального профессионально-ориентированного текста с иностранного языка на родной со словарём. Объём – 1300-1500 печатных знаков. Время выполнения – 45 минут.
2. Реферирование аутентичного или частично адаптированного научно-популярного текста, беседа на иностранном языке по содержанию текста. Объём текста – 900 печатных знаков. Время подготовки – до 15 минут.
3. Подготовленное высказывание по одной из изученных устных тем и неподготовленная беседа с преподавателем в рамках данной устной темы.

Устные темы для подготовленного высказывания:

1. Новый этап в моей жизни.
2. Республика Беларусь в современном мире.
3. Социально-политический портрет страны изучаемого языка.
4. БрГТУ в системе высшего образования Республики Беларусь.
5. Моя специальность и её значение в экономическом развитии РБ.

Оценка учебных достижений студентов на экзамене по иностранному языку производится по 10-балльной шкале.

Тесты и контрольные задания

АНГЛИЙСКИЙ ЯЗЫК

Образцы заданий для промежуточного контроля

1) Open the brackets and put the verbs into the correct affirmative form.

1) Computer-assissted instruction (to help) _____ us to study at our own pace.

2) At the end of the 1930s computing engineering (to begin) _____ its new era.

3) In future computers (to interpret) _____ images analysing colours and texture patterns.

4) The oldest form of mechanical calculating device (to be) _____ the abacus.

5) Programmers (to use) _____ the language known as C to write systems software.

6) Due to minituarization the development of the fourth generation computers (to become) _____ possible.

7) Microsoft's roots (to go back) _____ as far as 1975, when the first commercially available personal computer (to appear) _____ on the cover of *Popular Electronics* magazine.

8) I (to know) _____ the results in a week.

9) Sun Microsystems (to create) _____ Java in the mid-1990.

10) When he (to come) _____ to the office, he (to sit) _____ at his table and (to start) _____ working.

11) The early 1980s (to see) _____ both IBM's and Microsoft's fortunes soar. Microsoft (to dominate) _____ the software market, just as IBM (to beat) _____ the personal computer market.

12) Computer equipment (to be) _____ different in many years.

13) Every time she (to get) _____ to the office, she always (to check) _____ her e-mail first.

14) Yesterday I (to go) _____ to the laboratory to see the experiment which (to take) _____ place there.

15) The Internet (to keep) _____ us informed about the latest news and also (to provide) _____ entertainment at home.

16) Each device (to perform) _____ a precisely specified task.

17) Every day millions of people (to try) _____ to find information on the Internet.

18) He (to know) _____ the password and could easily get into the system.

19) There isn't enough memory in your computer. It _____ (crash) soon.

2) Ask general questions to the following sentences.

1) Computers help much in training engineers.

2) They studied five programming languages.

3) In future machines will solve many problems which today are in competence of man.

4) The CPU controls the actual calculations inside the computer.

5) Mathematical operations include arithmetic and algebraic operations.

6) B. Pascal invented the first mechanical adding machine at the age of 19.

7) The fifth generation systems will use many innovation technologies.

8) Niklaus Wirth created Pascal in the late 1960s.

9) Scientists call Norbert Wiener the father of cybernetics.

10) During four years in Berlin S.Kovalevskaya wrote three dissertations.

11) A large computer uses several types of microprocessors.

12) John Kemeny and Thomas Kurtz developed BASIC in 1965.

13) The third generation of computers began in 1964.

14) The computer does arithmetic problems faster than any person.

15) Boole reduced logic to two-valued binary notation.

3) Change the following statements to questions beginning with the question-words given in brackets.

1) A compiler translates the commands into machine language. (What … into?)

2) High-level languages use such commands such command as PRINT, OPEN, etc. (What commands ...?)

3) A team led by John Backus began developing FORTRAN in the 1950s. (When …?)

4) Nicklaus Wirth created the language which he named after 17th-century mathematician Blaise Pascal. (Who ...after?)

5) FORTRAN became the first comprehensive high-level programming language. (What language ...?)

6) PASCAL still influences today's programming languages. (What languages …?)

7) Ada Byron worked with Charles babbage in the mid-1800s. (Who …?)

8) Dennis Ritchie at Bell Laboratories designed C in the early 1970s.(When and where …?)

9) Programs in LISP manipulate symbolic data organized in list structures. (What data …?)

10) Companies insist on developing a universal language to make portable programs which will run on different computers. (What computers …?)

11) I will send you the e-mail address by sms in a minute. (When ...?)

12) He'll print out two copies of the document for you. (How many copies …?))

4) Translate from Russian into English:

1.Эти дисциплины преподаются квалифицированными преподавателями. 2. Эти лекции посещаются многими студентами. 3. Язык программирования C++ был создан в начале 1980-х годов. 4. Требования обычно пишутся не программистами, а людьми, которые находятся в тесном контакте с будущими пользователями программного обеспечения. 5. Оперативная память хранит инструкции и данные, которые обрабатываются процессором. 6. Какой язык программирования используется для написания этой программы? 7. Какие доклады были сделаны на этой конференции? 8. Z3 использовался для расчётов,

связанных с конструированием самолётов. 9. Тест был выполнен всеми студентами до того, как прозвенел звонок. 10. Когда вошел декан, в лаборатории проводился эксперимент. 11. В современном мире роботы используются в абсолютно в различных сферах жизни 12. Компьютер Colossus использовался британскими криптографами, чтобы взломать немецкий военный шифр. 13. Когда все службы будут установлены, вы увидите логотип Windows на экране.14. Когда вы вставляете данные из буфера обмена в приложение, оно проверяет различные форматы, в которых данные были скопированы. 15. К концу 60-х для моделирования сложных систем был разработан язык программирования Си́мула-67. 16. После лекции было задано много вопросов. 17. Когда вам нужно получить доступ к информации хранящейся в базе данных, мы используем отчет, который был создан для работы с этой базой данных. 18. Хорошая работа этого прибора гарантируется. 19. Носимые компьютеры - это компьютеры, которые носят на теле. 20. Исследования в области коммуникации проводятся в университете с 2014 года. 21. Когда работа будет окончена, выключите компьютер. 22. В конце 1920-х–1930-х были созданы новые виды вычислительных машин.

5) Give English equivalents for the words in brackets.

1. (Кто-то) _____ knows this problem very well.
2. Have you got (что-нибудь)_____ important to say?
3. This computer has (несколько) _____ disk drives.
4. Was there (какая-нибудь) _____ article about the central processor?
5. There was (никого) _____ in the English study.
6. Is (кто-нибудь) _____ ready to answer?
7. There was (что-то) _____ on the screen.
8. Will you purchase products if there are (нет)_____ testers or samples available?
9. (Никто) _____ could detect the problem with the motherboard.

6) Complete these sentences with the positive, comparative or superlative forms of the adjectives in brackets.

1. Always buy the (fast) _____ scanner with the (high) _____ resolution you can afford.
2. They have created the (revolutionary) _____ camera to date.
3. Even the (sophisticated) _____ computers must be told what to do.
4. The (much) _____ training you give to your employees, the (effective) _____ they will perform.
5. Some companies have as (many) _____ computers as employees.
6. Multifunction peripherals have become much (reliable) _____ and easy to set up.
7. The (high) ____ the resolution, the (much) _____ information can be displayed on the screen.
8. This drive is nearly twice as (capacious) _____ as the Seagate 8TB external hard drive we have recently tested and has nearly four times (much) ____ storage than the Samsung 4TB portable drive we reviewed last week.

9. Modern computers can solve certain classes of arithmetical problems millions of times (fast) _____ than a skilled mathematician.

10. The beginning of a new CRT technology will allow us to give (good) _____ and (good) _____ resolution and make a (clear) _____ picture.

11. This is the (popular) _____ package on the market today.

12. The (much) _____ memory your computer has, the (much) _____ data it can store.

13. The (good) _____programs are those adapted specifically to your own needs.

14. When you tap the screen the camera doesn't just focus on the object, it also applies exposure to that area of the photo so your photos should look far (good) _____ .

15. One of (important) _____ reasons why computers are used so widely today is that almost every big problem can be solved by solving a number of little problems.

16. A mainframe is (large) _____ and (expensive) _____ than a microcomputer.

17. For the (late) _____ generation, Silicon Valley and Tokyo have been working to design computers that are ever (easy) _____ to use.

18. The (big) _____ your computer system, the (little) _____ time you spend waiting.

19. New parallel systems are three times as (powerful) _____ as the one used before.

20. Laptops are as (powerful) _____ as microcomputers.

7) Choose the correct modal verb.

1. He said that no one but he _____ write that program.
a) can b) was able to c) could

2. _____ I borrow your program disc? – Certainly, you _____.
a) may b) might c) shall be allowed to

3. I don't need help. I _____ write the program myself.
a) must b) had to c) need

4. Mr. Johnson _____ analyze stimulus-response robots which have no memory and no logical decision-making in 2 days.
a) may b) were allowed to c) will be allowed to

5. Next week we _____ install a new operating system.
a) can b) will be able to c) could

6. As the program is interrupted by the command, the computer system _____ be checked up.
a) must b) has to c) shall have to

7. The scientists _____ test a new version of a digital computer next week.
a) may b) will have to c) were allowed to

8. _____ you show the results of testing? – Sure, it is not a problem.
a) can b) will be able to c) have to

9. A year ago we _____ start producing computers of a new generation.
a) ought to b) had to c) shall have to

10. _____ I delete this file?
a) may b) might c) shall be allowed to

11. The conference _____ at 9.30.
a) can b) is to c) has to

12. If you damage someone's property you _____ pay compensation. It is the right thing to do.

a) ought to b) are to c) can

8) Translate from Russian into English using ‘it’ and ‘there’ as dummy subjects:

1. Существует два основных типа программного обеспечения: системное и прикладное. Кроме системного и прикладного ПО существует еще третий вид программного обеспечения. Он называется системами программирования (СП).
2. Было трудно найти подходящее программное обеспечение.
3. Необходимо определить, где на жестком диске находится файл, в котором хранится запись.
4. Существует множество прикладных программ специального назначения для профессиональной деятельности.
5. Решить эту задачу достаточно легко.
6. Стоит прочитать статью "Программирование – это вторая грамотность”, в которой описывается применение компьютера в обучении.
7. Было полезно прочитать статью о типах программного обеспечения.
8. Сначала необходимо продумать соответствующий алгоритм, определить структуры данных, объекты и взаимодействие между ними.
9. Всего существует несколько сотен редакторов текстов, от самых простых до весьма мощных и сложных.
10. На стадии разработки архитектуры полезно отказаться от излишних и слишком громоздких функций.
11. Было довольно интересно посетить лекцию об инструментальных средствах разработки программ.

ТЕСТЫ И КОНТРОЛЬНЫЕ ЗАДАНИЯ.

ФРАНЦУЗСКИЙ ЯЗЫК

Образцы заданий для промежуточного контроля

1. Mettez un adjectif démonstratif ou un pronom démonstratif:

1. Donne-moi ... lampe; ... ne marche pas.
2. Regarde ... arbres, je préfère ... à ... .
3. ... vélo rouge est ... de Véronique.
4. Monique regarde ... qui parlent.
5. Je ne comprends pas ... que tu me raconte.
6. Sa biographie ressemble à ... de milliers d'autres.
7. N'oubliez pas ... livres!
8. A toute autre compagnie je préfère ... des jeunes.
9. ... qui a apporté ... fleurs est déjà parti.
10. Donnez ... dictionnaire à ... qui en ont besoin.

2. Mettez un adjectif possessif ou un pronom possessif:

1. Tu passeras ... vacances chez ... tante et ... oncle.
2. Je leur ai prêté ... camion; ... est trop petit pour transporter ... marchandises.
3. En anglais Damien est plus fort que moi, ... notes sont moins bonnes que ... .
4. Alain a envoyé une carte postale à ... grands-parents.
5. Martin et Agnès parlent à ... enfant.
6. Donnez-moi ... adresse. Je vous donnerai ... .
7. Vous savez ... nom et moi, je ne sais pas ... .
8. Nous parlons de ... problèmes et les étudiants parlent de ... .

3. Remplacez les mots soulignés par les pronoms:

1. J'ouvre la porte.
2. Il aime beaucoup la musique.
3. Vous parlez de nos représentants.
4. Vous devez expliquer toutes les formalités aux collègues.
5. A-t-elle écrit la lettre?
6. Répondez à cette dame!
7. Elle va aider sa mère.
8. Ne me donne pas ce livre!
9. Raconte ton voyage à ton ami!
10. Il a acheté du pain.
11. Nous avons assisté à cette réunion.
12. Tu dois faire attention à tes amis.
13. Lucie va à la piscine avec Anne.
14. On peut prendre un kilo de pommes.

4. Complétez les phrases par le genre féminin des noms donnés.

1. C'est un musicien. C'est ...
Ce sont des musiciens. Ce sont ...
2. C'est un employé. C'est ...

Ce sont des employés. Ce sont...
3. C’est un Français. C’est...
Ce sont des Français. Ce sont ...

5. Écrivez les noms en genre féminin.

1. un candidat
2. un Danois
3. un écolier
4. un champion
5. un voyageur
6. un lecteur
7. un tigre
8. un écrivain
9. un roi
10. un copain
11. un interprète
12. un avocat
13. un fils
14. le père
15. un empereur

6. Écrivez les noms au pluriel.

1. une fleur
2. un lac
3. un clou
4. un bijou
5. un oiseau
6. un neveu
7. un bleu
8. un hôpital
9. un métal
10. un festival
11. un vitrail
12. un bras
13. un nez
14. un jeune homme
15. un oeil

7. Déterminez le genre du nom à l’aide du suffixe.

1. action
2. voiture
3. entrée
4. courage
5. visage
6. journalisme

8. Ecrivez les verbes à l'Imparfait, au Passé composé ou au Plus-que-parfait:

L'autre jour, je (ne plus trouver) mon passeport, je (ne plus savoir) où je le (mettre). Alors, je (ouvrir) tous mes tiroirs, je (jeter) tout par terre, mais il ne (exister) nulle part. Je (être) désespéré. Où est-ce que je le (ranger)? Tout à coup, je (s'en souvenir): je le (cacher) dans un livre. Je (se précipiter) vers la bibliothèque. Il (être) bien là. Je l'y (placer) en rentrant de mon dernier voyage, et je le (oublier) complètement.

9. Ecrivez les verbes au Passé simple:

1. Saint-Louis (aider) des gens pauvres.
2. Les Romains (envahir) la Gaule.
3. Les guerres de religion (avoir) lieu au XVIe siècle.
4. Clovis (être) un roi fort, brave et rusé.
5. Ferdinand Magellan (faire) le premier voyage autour du monde.
6. Le capitaine (descendre) à terre pour déjeuner avec le commandant du port.

10. Mettez les verbes aux temps qui conviennent:

1 Mon ami m'a dit qu'il (ne pas aller) le lendemain au théâtre parce qu'il (être) très occupé.

2 Je ne savais pas que mon camarade (passer) déjà son examen.

3. Ils nous ont écrit qu'ils (faire) leurs études à la facufté de médecine.

4. Elle m'a montré la chaîne d'or aux diamants que son mari lui (acheter) en Italie.

5. Nous avons prévenu nos amis que nous ne (pouvoir) pas venir les voir ce dimanche-là.

6. Michel voulait faire connaissance avec la dame qui lui (écrire) cette lettre.

11. Traduisez le texte suivant:

ORGANISATION DE L'INFORMATION

En général, les informations à traiter sont groupées en lots d'importance différente entre lesquels diverses relations peuvent être établies. Différents types de groupes d'information sont à distinguer:

Le mot. Par définition, c'est la plus petite quantité d'information qui puisse concourir à une opération donnée (lecture en mémoire centrale ou traitement en unité centrale). Ainsi, un nom est un mot, une adresse (toute l'adresse) forme un mot, etc.

Le groupe de mots. C'est un ensemble de mots ; il n'intervient pas toujours sous cette forme de groupe. Pour préciser cela, imaginons le nom et l'adresse d'un client d'une société, stockés sur une bande magnétique:

M. DUPONT, 30, RUE DU DOCTEUR-LOMBARD, PARIS. Si l'entreprise se sert systématiquement du nom associé à l'adresse, l'ensemble doit être considéré comme un mot. Au contraire, si elle utilise parfois le 24 nom sans adresse ou l'adresse sans le nom, il faut distinguer deux mots, le nom d'une part, l'adresse d'autre part et l'ensemble forme un groupe de mots.

L'article. C'est un groupe d'informations constitué de plusieurs mots ou groupes de mots qui peuvent être regroupés autour d'un indicatif commun, c'est-à-dire qui concernent un même objet, un même individu, un même critère, etc. Ainsi, toutes les

informations caractérisant un ensemble industriel à une date déterminée ***t*** forment un article. Celui-ci peut être comparé à un autre article caractérisant le même ensemble industriel à une autre date ***t'***.

Un fichier. C'est un ensemble organisé d'informations regroupant un certain nombre d'articles (nombre souvent très grand). Un fichier d'ordinateur est une transposition, avec des structures plus rigides, des fichiers classiques et des archives diverses.

Les informaticiens parlent très souvent de fichier mais, malheureusement, donnent à ce mot au moins trois sens différents: un fichier peut représenter le support physique où est stockée l'information: c'est un cahier, un ensemble de fiches, des bandes ou des disques magnétiques.

Критерии оценивания работы студентов

Оценка перевода.

Уровни	Балл	Чтение
I. Низкий (рецептивный)	0	Отсутствие перевода или отказ от него.
	1	Перевод текста на уровне отдельных словосочетаний и предложений при проявлении усилий и мотивации.
	2	Неполный перевод текста (менее 90 %). Допускаются грубые искажения в передаче содержания. Отсутствует правильная передача характерных особенностей стиля переводимого текста.
II. Удовлетворительный (рецептивно-репродуктивный)	3	Неполный перевод (90 %). Допускаются грубые смысловые и терминологические искажения. Нарушается правильность передачи характерных особенностей стиля переводимого текста.
	4	Полный перевод. Допускаются грубые терминологические искажения. Нарушается правильность передачи характерных особенностей стиля переводимого текста.
III. Средний (репродуктивно-продуктивный)	5	Полный перевод. Допускаются незначительные искажения смысла и терминологии. Не нарушается правильность передачи стиля переводимого текста.
	6	Полный перевод. Отсутствуют смысловые искажения. Допускаются незначительные терминологические искажения. Нарушается правильность передачи характерных особенностей стиля переводимого текста
IV. Достаточный (продуктивный)	7	Полный перевод. Соблюдается точность передачи содержания. Отсутствую терминологические искажения. Допускаются незначительные нарушения характерных особенностей стиля переводимого текста.
	8	Полный перевод. Отсутствуют смысловые и терминологические искажения. В основном соблюдается правильная передача характерных особенностей стиля переводимого текста.
V. Высокий (продуктивный, творческий)	9	Полный перевод. Отсутствуют смысловые и терминологические искажения. Правильная передача характерных особенностей стиля переводимого текста.
	10	Полный перевод. Отсутствуют смысловые и терминологические искажения. Творческий подход к передаче характерных особенностей стиля переводимого текста.

Оценка понимания при чтении. Показатели оценки чтения.

Уровни	Балл	Чтение
I. Низкий (рецептивный)	0	Отсутствие ответа или отказ от ответа.
	1	Понимание менее 30% основных фактов и смысловых связей между ними.
	2	Понимание 30% основных фактов и смысловых связей между ними.
II. Удовлетвори-тельный (рецеп-тивно-репро-дуктивный)	3	Понимание менее 50% основных фактов и смысловых связей между ними.
	4	Понимание 50% основных фактов текста и смысловых связей между ними.
III. Средний (репродуктивно -продуктивный)	5	Понимание большинства основных фактов текста, смысловых связей между ними и отдельных деталей текста.
	6	Понимание всех основных фактов текста, смысловых связей между ними и 50% деталей текста.
IV. Достаточный (продуктив-ный)	7	Понимание всех основных фактов текста, смысловых связей между ними и 70% деталей текста.
	8	Понимание всех основных фактов текста, смысловых связей между ними и 80% деталей текста.
V. Высокий (продуктивный, творческий)	9	Понимание всех основных фактов текста, смысловых связей между ними и 90% деталей текста.
	10	100-процентное понимание основных фактов текста, смысловых связей между ними и деталей текста.

ВСПОМОГАТЕЛЬНЫЙ РАЗДЕЛ

Учебная программа дисциплины. Английский язык

Учреждение образования
«Брестский государственный технический университет»

Р-1 2024

УТВЕРЖДАЮ
Проректор по учебной работе БрГТУ
_____ М.В.Нерода
28.06. 2024

Регистрационный № УД-24-1-011

Иностранный язык (английский)

Учебная программа учреждения высшего образования по учебной дисциплине для специальностей:

6-05-0713-02 Электронные системы и технологии (профилизация Компоненты киберфизических систем)
6-05-0611-05 Компьютерная инженерия (профилизация – Вычислительные машины, системы и сети)
6-05-0611-03 Искусственный интеллект
6-05-0612-03 Системы управления информацией
6-05-0611-05 Компьютерная инженерия (профилизация – Программируемые мобильные системы)
6-05-0612-01 Программная инженерия

2024 г.

Учебная программа составлена на основе образовательных стандартов ОСВО 6-05-0713-02-2023 Электронные системы и технологии, ОСВО 6-05-0611-05 Компьютерная инженерия, ОСВО 6-05-0611-03 Искусственный интеллект, ОСВО 6-05-0612-03 Системы управления информацией, ОСВО 6-05-0612-01 Программная инженерия, утвержденных постановлением Министерства образования Республики Беларусь № 246 от 10.08.2023 (с учетом изменений, внесенных в постановление Министерства образования Республики Беларусь № 355 от 22.11.2023), примерной учебной программы «Иностранный язык», утвержденной Министерством образования Республики Беларусь 06.12.2023, регистрационный № 6-05-06-034/пр. и учебных планов, разработанных на основе примерных учебных планов, для специальности 6-05-0713-02-2023 Электронные системы и технологии, регистрационный номер № 6-05-07-006/пр., 6-05-0611-05 Компьютерная инженерия, регистрационный номер № 6-05-07-004/пр., 6-05-0611-03 Искусственный интеллект, регистрационный номер № 6-05-07-002/пр., 6-05-0612-03 Системы управления информацией, регистрационный номер № 6-05-07-007/пр., 6-05-0612-01 Программная инженерия, регистрационный номер № 6-05-07-005/пр., утвержденных постановлением Министерства образования Республики Беларусь 17.11.2022.

СОСТАВИТЕЛЬ:
Борушко М.В., старший преподаватель кафедры лингвистических дисциплин и межкультурных коммуникаций, магистр технических наук

РЕКОМЕНДОВАНА К УТВЕРЖДЕНИЮ:

Кафедрой лингвистических дисциплин и межкультурных коммуникаций
Заведующий кафедрой _____ В.И.Рахуба
(протокол № 8 от 26.04.24);

Методической комиссией факультета электронно-информационных систем
Председатель методической комиссии _____ С.Е.Дереченник
(протокол № 8 от 20.05.2024);

Научно-методическим советом БрГТУ
(протокол № 5 от 28.06.2024);

ПОЯСНИТЕЛЬНАЯ ЗАПИСКА

Статус иностранного языка как общеобразовательной дисциплины, реально востребуемой в практической и интеллектуальной деятельности специалиста, является в современном поликультурном и многоязычном мире особенно значимым. Иностранный язык рассматривается не только в качестве средства межкультурного и профессионального общения, но и средства формирования личности как субъекта национальной и мировой культуры.

Учебная программа разработана с учетом основных положений концепции обучения иностранным языкам в системе непрерывного образования Республики Беларусь, концепции современного языкового образования, а также в соответствии с нормативными документами. Курс обучения иностранному (английскому) языку рассматривается как продолжение курса изучения иностранного языка в учреждении среднего образования с соблюдением принципа преемственности.

Главная цель обучения иностранному языку заключается в формировании иноязычной коммуникативной компетенции будущего специалиста, позволяющей использовать иностранный язык как средство межличностного и профессионального общения. Достижение главной цели предполагает комплексную реализацию познавательной, развивающей, воспитательной и практической целей.

В качестве стратегической интегративной компетенции в процессе обучения иностранным языкам выступает коммуникативная компетенция в единстве всех составляющих: языковой, речевой, социокультурной, компенсаторной, учебно-познавательной компетенций.

Языковая компетенция – совокупность языковых средств.

Речевая компетенция – совокупность навыков и умений речевой деятельности (говорение, письмо, аудирование, чтение), знание норм речевого поведения, способность использовать языковые средства в связной речи в соответствии с ситуацией общения.

Социокультурная компетенция – совокупность знаний о национально-культурной специфике стран изучаемого языка и связанных с этим умений корректно строить свое речевое и неречевое поведение.

Компенсаторная компетенция – совокупность умений использовать дополнительные вербальные средства и невербальные способы решения коммуникативных задач в условиях дефицита имеющихся языковых средств.

Учебно-познавательная компетенция – совокупность общих и специальных учебных умений, необходимых для осуществления самостоятельной деятельности по овладению иностранным языком.

Основными задачами изучения дисциплины являются:

– унификация полученных ранее умений и навыков чтения текстов на расширенном языковом материале;

– формирование умений и навыков чтения и понимания текстов по специальности в ситуациях поиска смысловой информации;

– владение профессиональной лексикой;

– знакомство с историей и культурой страны изучаемого языка.

В результате изучения учебной дисциплины «Иностранный язык (английский)» у студентов формируются следующие универсальные компетенции:

УК-3. Осуществлять коммуникации, в том числе на иностранном языке, для решения задач межличностного, профессионального и межкультурного взаимодействия.

В результате изучения дисциплины студент должен:

ЗНАТЬ:

– систему иностранного языка в его фонетическом, лексическом и грамматическом аспектах;

– социокультурные нормы бытового, делового и профессионального общения, а также правила речевого этикета, позволяющие будущему специалисту эффективно использовать иностранный язык как средство общения в современном поликультурном мире;

– историю и культуру страны изучаемого языка;

– основные формы культурной коммуникации;

УМЕТЬ:

– вести общение профессионального и социокультурного характера на иностранном языке, сочетая диалогические и монологические формы речи;

– читать и переводить литературу по специальности (изучающее, ознакомительное, просмотровое и поисковое чтение);

– письменно выражать свои коммуникативные намерения в сфере профессиональной деятельности;

– составлять письменные документы, используя реквизиты делового письма, заполнять бланки на участие в конференциях, семинарах и т.д.;

– реферировать и аннотировать профессионально-ориентированные и общенаучные тексты;

– понимать аутентичную иноязычную речь на слух;

ВЛАДЕТЬ:

– методами компенсации лингвистического и экстралингвистического характера;

– методами мониторинга и исправления ошибок.

В числе эффективных педагогических методов (технологий), способствующих вовлечению студентов в поиск и управление знаниями, приобретению опыта самостоятельного решения речемыслительных задач, рекомендуется использовать:

– технологии проблемно-модульного обучения;

– коммуникативные технологии (дискуссия, пресс-конференция, мозговой штурм, учебные дебаты и другие активные формы и методы);

– метод кейсов (анализ ситуации);

– игровые технологии, в рамках которых студенты участвуют в деловых, ролевых, имитационных играх;

– компьютерные технологии.

План учебной дисциплины для дневной формы получения высшего образования

Код специальности (направления специальности)	Наименование специальности (направления специальности)	Курс	Семестр	Всего учебных часов	Количество зачетных единиц	Аудиторных часов (в соответствии с учебным планом УВО)					Академических часов на курсовой проект (работу)	Форма текущей аттестации
						Всего	Лекции	Лабораторные занятия	Практические занятия	Семинары		
6-05-0713-02	Электронные системы и технологии (профилизация – Компоненты киберфизических систем)	1	1	108	3	60	–	–	60	–	–	зачет
		1	2	108	3	60	–	–	60	–	–	экзамен
6-05-0611-05	Компьютерная инженерия (профилизация – Вычислительные машины, системы и сети)	1	1	108	3	60	–	–	60	–	–	зачет
		1	2	108	3	60	–	–	60	–	–	экзамен
6-05-0611-03	Искусственный интеллект	1	1	108	3	60	–	–	60	–	–	зачет
		1	2	108	3	60	–	–	60	–	–	экзамен
6-05-0612-03	Системы управления информацией	1	1	108	3	60	–	–	60	–	–	зачет
		1	2	108	3	60	–	–	60	–	–	экзамен
6-05-0611-05	Компьютерная инженерия (профилизация – Программируемые мобильные системы)	1	1	108	3	60	–	–	60	–	–	зачет
		1	2	108	3	60	–	–	60	–	–	экзамен
6-05-0612-01	Программная инженерия	1	1	108	3	60	–	–	60	–	–	зачет
		1	2	108	3	60	–	–	60	–	–	экзамен

План учебной дисциплины для заочной формы получения высшего образования

Код специальности (направления специальности)	Наименование специальности (направления специальности)	Курс	Семестр	Всего учебных часов	Количество зачетных единиц	Аудиторных часов (в соответствии с учебным планом УВО)					Академических часов на курсовой проект (работу)	Форма текущей аттестации
						Всего	Лекции	Лабораторные занятия	Практические занятия	Семинары		
6-05-0612-03	Системы управления информацией	1	1	108	3	14	–	–	14	–	–	зачет
		1	2	108	3	14	–	–	14	–	–	экзамен

План учебной дисциплины для заочной формы получения высшего образования, интегрированного со средним специальным образованием

Код специальности (направления специальности)	Наименование специальности (направления специальности)	Курс	Семестр	Всего учебных часов	Количество зачетных единиц	Аудиторных часов (в соответствии с учебным планом УВО)					Академических часов на курсовой проект (работу)	Форма текущей аттестации
						Всего	Лекции	Лабораторные занятия	Практические занятия	Семинары		
6-05-0713-02	Электронные системы и технологии (профилизация – Компоненты киберфизических систем)	1	1	108	3	14	–	–	14	–	–	зачет
		1	2	108	3	14	–	–	14	–	–	экзамен

1. СОДЕРЖАНИЕ УЧЕБНОГО МАТЕРИАЛА

МОДУЛЬ 1. Социально-бытового и социокультурного общения.

ТЕМА 1.1. Новый этап в моей жизни:
Развитие речи:
1. О себе и своей семье.
2. Мой рабочий день.
3. Мой выходной день.
4. Новый этап в моей жизни.
Грамматика: имя существительное; артикль, артикль с именами собственными.

ТЕМА 1.2. Республика Беларусь в современном мире:
Развитие речи:
1. Республика, в которой я живу.
2. Географическое положение, население, экономика Беларуси.
3. Традиции и обычаи моей страны.
4. Мой родной город.
Грамматика: времена действительного залога; страдательный залог.

ТЕМА 1.3. Социально-политический портрет Великобритании:
Развитие речи:
1. Великобритания.
2. Географическое положение, климат, политическая система и государственное устройство, население, экономика, обычаи и традиции, культура.
Грамматика: прямая и косвенная речь; согласование времен.

МОДУЛЬ 2. Профессионального общения.

ТЕМА 2.1. БрГТУ в системе высшего образования Беларуси:
Развитие речи:
1. Высшее образование в Беларуси.
2. Брестский государственный технический университет: его история, структура, специальности.
Грамматика: инфинитив; Герундий; причастие I; причастие II.
ТЕМА 2.2. История компьютерной техники:
Чтение:
1. История создания компьютера.

2. Что такое компьютер?
3. Типы компьютеров.
4. Поколения компьютеров.
5. Применение компьютеров.
Грамматика: модальные глаголы; сослагательное наклонение.

ТЕМА 2.3. Устройство компьютера:
Чтение:
1. Аппаратное обеспечение.
2. Устройства ввода информации.
3. Устройства хранения информации.
4. Устройства вывода информации.
Грамматика: имя прилагательное; наречие; степени сравнения.

ТЕМА 2.4. Программное обеспечение:
Чтение:
1. Программное обеспечение.
2. Программирование.
3. Языки программирования.
Грамматика: местоимение; вводные it, there.

ТЕМА 2.5. Информационные технологии:
Чтение:
1. Интернет.
2. Всемирная паутина.
3. Виртуальная реальность.
4. Сети.
Грамматика: союзы.

ТЕМА 2.6. Моя будущая специальность и ее значение в экономическом развитии РБ:
Чтение:
1. Инженерия.
2. Специальности сферы компьютерных технологий.
3. Моя будущая профессия.
Грамматика: порядок слов в предложении; числительное.

ТЕМА 2.7. Место компьютера в современном мире.

ТЕМА 2.7.1.
Текст: История компьютерных систем.
Грамматический материал: оборот there + to be; спряжение глаголов to be, to have в Present, Past, Future Indefinite; форма настоящего (Present), прошедшего (Past), будущего (Future) времен группы Indefinite действительного и страдательного залога изъявительного наклонения.

ТЕМА 2.7.2.
Текст: Интернет: изобретение, развитие, вклад. (Часть 1).
Грамматический материал: форма настоящего (Present), прошедшего (Past), будущего (Future) времен группы Continuous действительного и форма настоящего (Present), прошедшего (Past) времен группы Continuous страдательного залога изъявительного наклонения.
ТЕМА 2.7.3.
Текст: Интернет: изобретение, развитие, вклад. (Часть 2).
Грамматический материал: форма настоящего (Present), прошедшего (Past),

будущего (Future) времен группы Perfect действительного и страдательного залога изъявительного наклонения.

ТЕМА 2.7.4.

Текст: Применение компьютеров.

Грамматический материал: особенности перевода пассивных конструкций на русский язык.

Прием внеаудиторного чтения.

ТЕМА 2.8. Устройство компьютера.

ТЕМА 2.8.1.

Текст: Аппаратное обеспечение.

Грамматический материал: неличные формы глагола: инфинитив; формы инфинитива; инфинитивные конструкции.

ТЕМА 2.8.2.

Текст: Типы программного обеспечения.

Грамматический материал: неличные формы глагола: причастие; причастия I и II; причастные обороты, особенности их перевода.

ТЕМА 2.8.3.

Текст: Интернет. Всемирная паутина.

Грамматический материал: неличные формы глагола: герундий; особенности перевода на русский язык.

ТЕМА 2.8.4.

Текст: Виртуальная реальность. Сети.

Грамматический материал: условные предложения.

Прием внеаудиторного чтения.

2.1. УЧЕБНО-МЕТОДИЧЕСКАЯ КАРТА УЧЕБНОЙ ДИСЦИПЛИНЫ
для дневной формы получения высшего образования для специальностей:
6-05-0713-02 ЭЛЕКТРОННЫЕ СИСТЕМЫ И ТЕХНОЛОГИИ (ПРОФИЛИЗАЦИЯ – КОМПОНЕНТЫ КИБЕРФИЗИЧЕСКИХ СИСТЕМ)
6-05-0611-05 КОМПЬЮТЕРНАЯ ИНЖЕНЕРИЯ (ПРОФИЛИЗАЦИЯ – ВЫЧИСЛИТЕЛЬНЫЕ МАШИНЫ, СИСТЕМЫ И СЕТИ)
6-05-0611-03 ИСКУССТВЕННЫЙ ИНТЕЛЛЕКТ
6-05-0612-03 СИСТЕМЫ УПРАВЛЕНИЯ ИНФОРМАЦИЕЙ
6-05-0611-05 КОМПЬЮТЕРНАЯ ИНЖЕНЕРИЯ (ПРОФИЛИЗАЦИЯ – ПРОГРАММИРУЕМЫЕ МОБИЛЬНЫЕ СИСТЕМЫ)
6-05-0612-01 ПРОГРАММНАЯ ИНЖЕНЕРИЯ

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	1-й семестр						
1.1	Новый этап в моей жизни: Развитие речи: 1. О себе и своей семье. 2. Мой рабочий день. 3. Мой выходной день. 4. Новый этап в моей жизни. Грамматика: имя существительное; артикль, артикль с именами собственными.			14		12	Фронтальный/ индивидуальный опрос. Выполнение лексико-грамматических упражнений. Работа с текстом. Аннотирование текста
1.2	Республика Беларусь в современном мире: Развитие речи: 1. Республика, в которой я живу. 2. Географическое положение, население, экономика Беларуси. 3. Традиции и обычаи моей страны. 4. Мой родной город. Грамматика: времена действительного залога; страдательный залог.			14		12	Фронтальный/ индивидуальный опрос. Выполнение лексико-грамматических упражнений. Работа с текстом. Аннотирование текста
1.3	Социально-политический портрет Великобритании: Развитие речи: 1. Великобритания. 2. Географическое положение, климат, политическая система и государственное устройство, население, экономика, обычаи и традиции, культура. Грамматика: прямая и косвенная речь; согласование времен.			12		12	Фронтальный/ индивидуальный опрос. Выполнение лексико-грамматических упражнений. Работа с текстом. Аннотирование текста
2.1	БрГТУ в системе высшего образования Беларуси: Развитие речи: 1. Высшее образование в Беларуси. 2. Брестский государственный технический университет: его история, структура, специальности. Грамматика: инфинитив; Герундий; причастие I; причастие II.			20		12	Фронтальный/ индивидуальный опрос. Выполнение лексико-грамматических упражнений. Работа с текстом. Аннотирование текста
	2-й семестр						
2.2	История компьютерной техники: Чтение: 1. История создания компьютера. 2. Что такое компьютер?			12		10	Фронтальный/ индивидуальный опрос. Выполнение лексико-

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	3. Типы компьютеров. 4. Поколения компьютеров. 5. Применение компьютеров. Грамматика: модальные глаголы; сослагательное наклонение.						грамматических упражнений. Работа с текстом. Аннотирование текста
2.3	Устройство компьютера: Чтение: 1. Аппаратное обеспечение. 2. Устройства ввода информации. 3. Устройства хранения информации. 4. Устройства вывода информации. Грамматика: имя прилагательное; наречие; степени сравнения.			12		10	Фронтальный/ индивидуальный опрос. Выполнение лексико-грамматических упражнений. Работа с текстом. Аннотирование текста
2.4	Программное обеспечение: Чтение: 1. Программное обеспечение. 2. Программирование. 3. Языки программирования. Грамматика: местоимение; вводные it, there.			12		10	Фронтальный/ индивидуальный опрос. Выполнение лексико-грамматических упражнений. Работа с текстом. Аннотирование текста
2.5	Информационные технологии: Чтение: 1. Интернет. 2. Всемирная паутина. 3. Виртуальная реальность. 4. Сети. Грамматика: союзы.			12		10	Фронтальный/ индивидуальный опрос. Выполнение лексико-грамматических упражнений. Работа с текстом. Аннотирование текста
2.6	Моя будущая специальность и ее значение в экономическом развитии РБ: Чтение: 1. Инженерия. 2. Специальности сферы компьютерных технологий. 3. Моя будущая профессия. Грамматика: порядок слов в предложении; числительное.			12		8	Фронтальный/ индивидуальный опрос. Выполнение лексико-грамматических упражнений. Работа с текстом. Аннотирование текста

2.2. УЧЕБНО-МЕТОДИЧЕСКАЯ КАРТА УЧЕБНОЙ ДИСЦИПЛИНЫ для заочной формы получения высшего образования для специальности: 6-05-0612-03 СИСТЕМЫ УПРАВЛЕНИЯ ИНФОРМАЦИЕЙ

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	1-й семестр						
1	Место компьютера в современном мире.						

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
1.1	Текст: История компьютерных систем. Грамматический материал: оборот there + to be; спряжение глаголов to be, to have в Present, Past, Future Indefinite; форма настоящего (Present), прошедшего (Past), будущего (Future) времен группы Indefinite действительного и страдательного залога изъявительного наклонения.			4		24	Лексико-грамматические упражнения, постановка вопросов к тексту и ответы на них. Пересказ текста.
1.2	Текст: Интернет: изобретение, развитие, вклад. (Часть 1). Грамматический материал: форма настоящего (Present), прошедшего (Past), будущего (Future) времен группы Continuous действительного и форма настоящего (Present), прошедшего (Past) времен группы Continuous страдательного залога изъявительного наклонения.			4		24	Лексико-грамматические упражнения, постановка вопросов к тексту и ответы на них. Пересказ текста.
1.3	Текст: Интернет: изобретение, развитие, вклад. (Часть 2). Грамматический материал: форма настоящего (Present), прошедшего (Past), будущего (Future) времен группы Perfect действительного и страдательного залога изъявительного наклонения.			4		24	Лексико-грамматические упражнения, постановка вопросов к тексту и ответы на них. Пересказ текста.
1.4	Текст: Применение компьютеров. Грамматический материал: особенности перевода пассивных конструкций на русский язык. Прием внеаудиторного чтения.			2		22	Лексико-грамматические упражнения, постановка вопросов к тексту и ответы на них. Передача основного содержания текста, перевод с английского на русский язык, ответы на вопросы к тексту.
	2-й семестр						
2	Устройство компьютера.						
2.1	Текст: Аппаратное обеспечение. Грамматический материал: неличные формы глагола: инфинитив; формы инфинитива; инфинитивные конструкции.			4		24	Лексико-грамматические упражнения, постановка вопросов к тексту и ответы на них. Пересказ текста.
2.2	Текст: Типы программного обеспечения. Грамматический материал: неличные формы глагола: причастие; причастия I и II; причастные обороты, особенности их перевода.			4		24	Лексико-грамматические упражнения, постановка вопросов к тексту и ответы на них. Пересказ текста.
2.3	Текст: Интернет. Всемирная паутина. Грамматический материал: неличные формы глагола: герундий; особенности перевода на русский язык.			4		24	Лексико-грамматические упражнения, постановка вопросов к тексту и ответы на них.
2.4	Текст: Виртуальная реальность. Сети. Грамматический материал: условные			2		22	Лексико-грамматические

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	предложения. Прием внеаудиторного чтения.						упражнения, постановка вопросов к тексту и ответы на них. Передача основного содержания текста, перевод с английского на русский язык, ответы на вопросы к тексту.

2.3. УЧЕБНО-МЕТОДИЧЕСКАЯ КАРТА УЧЕБНОЙ ДИСЦИПЛИНЫ
для заочной формы получения высшего образования, интегрированного со средним специальным образованием, для специальности:
6-05-0713-02 ЭЛЕКТРОННЫЕ СИСТЕМЫ И ТЕХНОЛОГИИ
(ПРОФИЛИЗАЦИЯ – КОМПОНЕНТЫ КИБЕРФИЗИЧЕСКИХ СИСТЕМ)

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	1-й семестр						
1	Место компьютера в современном мире.						
1.1	Текст: История компьютерных систем. Грамматический материал: оборот there + to be; спряжение глаголов to be, to have в Present, Past, Future Indefinite; форма настоящего (Present), прошедшего (Past), будущего (Future) времен группы Indefinite действительного и страдательного залога изъявительного наклонения.			4		24	Лексико-грамматические упражнения, постановка вопросов к тексту и ответы на них. Пересказ текста.
1.2	Текст: Интернет: изобретение, развитие, вклад. (Часть 1). Грамматический материал: форма настоящего (Present), прошедшего (Past), будущего (Future) времен группы Continuous действительного и форма настоящего (Present), прошедшего (Past) времен группы Continuous страдательного залога изъявительного наклонения.			4		24	Лексико-грамматические упражнения, постановка вопросов к тексту и ответы на них. Пересказ текста.
1.3	Текст: Интернет: изобретение, развитие, вклад. (Часть 2). Грамматический материал: форма настоящего (Present), прошедшего (Past), будущего (Future) времен группы Perfect действительного и страдательного залога изъявительного наклонения.			4		24	Лексико-грамматические упражнения, постановка вопросов к тексту и ответы на них. Пересказ текста.
1.4	Текст: Применение компьютеров. Грамматический материал: особенности перевода пассивных конструкций на русский язык. Прием внеаудиторного чтения.			2		22	Лексико-грамматические упражнения, постановка вопросов к тексту и ответы на них. Передача основного содержания текста, перевод с английского на русский язык, ответы на вопросы к тексту.
	2-й семестр						
2	Устройство компьютера.						
2.1	Текст: Аппаратное обеспечение. Грамматический материал: неличные формы глагола: инфинитив; формы инфинитива; инфинитивные конструкции.			4		24	Лексико-грамматические упражнения, постановка вопросов к тексту и ответы на них. Пересказ текста.
2.2	Текст: Типы программного обеспечения. Грамматический материал: неличные формы глагола: причастие; причастия I и II; причастные обороты, особенности их перевода.			4		24	Лексико-грамматические упражнения, постановка вопросов к тексту и ответы на них. Пересказ текста.

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
2.3	Текст: Интернет. Всемирная паутина. Грамматический материал: неличные формы глагола: герундий; особенности перевода на русский язык.			4		24	Лексико-грамматические упражнения, постановка вопросов к тексту и ответы на них.
2.4	Текст: Виртуальная реальность. Сети. Грамматический материал: условные предложения. Прием внеаудиторного чтения.			2		22	Лексико-грамматические упражнения, постановка вопросов к тексту и ответы на них. Передача основного содержания текста, перевод с английского на русский язык, ответы на вопросы к тексту.

3. ИНФОРМАЦИОННО-МЕТОДИЧЕСКАЯ ЧАСТЬ

3.1. Перечень литературы (учебной, учебно-методической, научной, нормативной, др.).

Основная:

1. Учебно-методический комплекс по учебной дисциплине «Иностранный язык» для специальностей: для АСОИ, ВМСиС, ИИ, ПМС, ПОИТ, ПЭ / Брестский государственный технический университет, Кафедра иностранных языков ; сост.: О. Л. Зозуля, Е. В. Копчак, О. В. Бань, М. В. Борушко. – Брест : БрГТУ, 2020.

Дополнительная:

1. О. В. Бань. Digital Reality (Пособие по английскому языку для аудиторной и внеаудиторной самостоятельной работы для студентов дневной формы обучения специальностей 1-40 03 01 «Искусственный интеллект» и 1-53 01 02 «Автоматизированные системы обработки информации»); УО «Брестский государственный технический университет». – Брест , 2015.
4. Д.В. Новик, И.И. Гайдук Методические рекомендации по развитию навыков устной речи по английскому языку для студентов I-II курсов технических специальностей. Брест: Издательство БрГТУ, 2016.
5. Д.В. Новик, А.Ф. Трифонюк, Е.А. Щербинина, А.В. Головач, И.С. Сидорук, М.А. Чумерина Computer Technologies. Брест, 2007.
6. И.В. Орловская, Л.С.Самсонова, А.И. Скубриева Учебник английского языка для технических вузов. М., 2008.
7. О.В. Прокопюк, Л.Н. Шпудейко English 4 IT: пособие по развитию основных видов речевой деятельности на английском языке для студентов специальностей ФЭИС дневной и вечерней форм обучения. – Брест: Издательство БрГТУ, 2016.
8. В.И. Рахуба Практикум по грамматике английского языка. Брест, 2008.
9. С.А. Хоменко, В.Ф. Скалабан, А.Г. Крупеникова, Е.В.Ушакова Английский язык для студентов технических вузов. Мн., 2004.
10. Л.Н. Шпудейко, О.В. Прокопюк English 4 IT: пособие по развитию основных

видов речевой деятельности на английском языке. – Брест: Издательство БрГТУ, 2017.

11. Мюллер В.К. Новый англо-русский словарь. – М.: Дрофа; Рус.яз. – Медиа, 2011.

12. Орлов С.Б. Англо-русский словарь по вычислительной технике и информационным технологиям: 60 тыс. терминов. – 4-е изд., перераб. и доп. М.: ИП Радио-Софт, 2005.

3.2. Перечень средств диагностики результатов учебной деятельности.

3.2.1. ДЛЯ СПЕЦИАЛЬНОСТЕЙ «ЭЛЕКТРОННЫЕ СИСТЕМЫ И ТЕХНОЛОГИИ (ПРОФИЛИЗАЦИЯ – КОМПОНЕНТЫ КИБЕРФИЗИЧЕСКИХ СИСТЕМ)», КОМПЬЮТЕРНАЯ ИНЖЕНЕРИЯ (ПРОФИЛИЗАЦИЯ – ВЫЧИСЛИТЕЛЬНЫЕ МАШИНЫ, СИСТЕМЫ И СЕТИ)», «ИСКУССТВЕННЫЙ ИНТЕЛЛЕКТ», «СИСТЕМЫ УПРАВЛЕНИЯ ИНФОРМАЦИЕЙ», «КОМПЬЮТЕРНАЯ ИНЖЕНЕРИЯ (ПРОФИЛИЗАЦИЯ – ПРОГРАММИРУЕМЫЕ МОБИЛЬНЫЕ СИСТЕМЫ)», «ПРОГРАММНАЯ ИНЖЕНЕРИЯ» (дневная форма получения высшего образования):

ТЕКУЩИЙ КОНТРОЛЬ знаний осуществляется постоянно на всех практических занятиях. Для текущего контроля знаний студентам предлагаются следующие виды работ:

– опрос на занятиях;

– выполнение контрольных переводов;

– выполнение лексико-грамматических тестов при изучении лексико-грамматического материала.

ПРОМЕЖУТОЧНЫЙ КОНТРОЛЬ осуществляется:

1) по устным темам – в форме монологического высказывания, диалогов, беседы с преподавателем;

2) по текстам – в форме разработанных комплексных заданий, составления аннотаций и рефератов, выборочного письменного перевода;

3) по грамматике – в виде выполнения грамматических упражнений по изученным темам.

ТЕКУЩАЯ АТТЕСТАЦИЯ проводится в целях периодического контроля и оценки результатов учебной деятельности обучающихся по учебной дисциплине.

Текущая аттестация проводится в виде тестирования (в технической форме через Google Classroom или на бумажном носителе).

Текущая аттестация включает:

– в первом семестре: выполнение двух тестов по темам 1-4 учебной программы (Тест № 1 – темы 1.1-1.2; Тест № 2 – темы 1.3-2.1);

– во втором семестре: выполнение двух тестов по темам 5-9 учебной программы (Тест № 3 – темы 2.2-2.3; Тест № 4 – темы 2.4-2.6).

ПРОМЕЖУТОЧНАЯ АТТЕСТАЦИЯ:

Обучающиеся допускаются к промежуточной аттестации по учебной дисциплине при условии успешного прохождения текущей аттестации, предусмотренной в текущем семестре.

Допуском к сдаче зачета в первом семестре является успешное выполнение 2/3 тестовых заданий (Тест № 1 и Тест № 2).

Допуском к сдаче экзамена во втором семестре является успешное выполнение 2/3 тестовых заданий (Тест № 3 и Тест № 4).

ИТОГОВЫЙ КОНТРОЛЬ представляет собой обобщение и систематизацию изученного учебного материала по всем аспектам иностранного языка и осуществляется в форме зачета и экзамена.

Зачет проводится в конце 1 семестра и выставляется по результатам выполнения программы текущего семестра.

Экзамен проводится в конце 2 семестре. К экзамену допускаются студенты, выполнившие программу практических аудиторных занятий.

Структура экзамена:

1) чтение и письменный перевод оригинального профессионально-ориентированного текста с иностранного языка на русский со словарём. Объём – 1300-1500 печатных знаков. Время выполнения – 45 минут.

2) реферирование аутентичного или частично адаптированного научно-популярного текста, беседа на иностранном языке по содержанию текста. Объём текста – 900 печатных знаков. Время подготовки – до 15 минут.

3) подготовленное высказывание по одной из изученных устных тем и неподготовленная беседа с преподавателем в рамках данной устной темы.

Устные темы для подготовленного высказывания:

1) Новый этап в моей жизни.

2) Республика Беларусь в современном мире.

3) Социально-политический портрет страны изучаемого языка.

4) БрГТУ в системе высшего образования Республики Беларусь.

5) Моя специальность и ее значение в экономическом развитии Республики Беларусь.

3.2.2. ДЛЯ СПЕЦИАЛЬНОСТИ «СИСТЕМЫ УПРАВЛЕНИЯ ИНФОРМАЦИЕЙ» (заочная форма получения высшего образования):

ИТОГОВЫЙ КОНТРОЛЬ представляет собой обобщение и систематизацию изученного учебного материала по всем аспектам иностранного языка и осуществляется в форме зачета и экзамена.

Зачет проводится конце 1 семестра в форме компьютерного теста и выставляется с учетом выполнения программы текущего семестра: выполнение программы практических аудиторных занятий; сдача текстов профессиональной направленности по внеаудиторному чтению объемом 7,5 тыс. печатных знаков.

Экзамен проводится в конце 2 семестра. К экзамену допускаются студенты, выполнившие программу практических аудиторных занятий и сдавшие тексты по специальности объемом 7,5 тыс. печатных знаков по внеаудиторному чтению.

Структура экзамена:

1) прочитать фонетически правильно отрывок текста по специальности.

2) с помощью словаря письменно перевести на родной язык текст по специальности объемом 1100-1200 печатных знаков. Время подготовки – 45 минут.

3) прочитать текст общенаучной тематики объемом 800-900 печатных знаков и передать его содержание на иностранном или русском языке. Время подготовки – 20 минут.

Оценка учебных достижений студентов на экзамене по иностранному языку производится по 10-балльной шкале.

3.2.3. ДЛЯ СПЕЦИАЛЬНОСТИ «ЭЛЕКТРОННЫЕ СИСТЕМЫ И ТЕХНОЛОГИИ (ПРОФИЛИЗАЦИЯ – КОМПОНЕНТЫ КИБЕРФИЗИЧЕСКИХ СИСТЕМ)» (заочная форма получения высшего образования, интегрированного со средним специальным образованием):

ИТОГОВЫЙ КОНТРОЛЬ представляет собой обобщение и систематизацию изученного учебного материала по всем аспектам иностранного языка и осуществляется в форме зачета и экзамена.

Зачет проводится конце 1 семестра и выставляется по результатам выполнения программы текущего семестра: выполнение программы практических аудиторных занятий; сдача текстов профессиональной направленности по внеаудиторному чтению объемом 7,5 тыс. печатных знаков.

Экзамен проводится в конце 2 семестра. К экзамену допускаются студенты,

выполнившие программу практических аудиторных занятий и сдавшие тексты по специальности объемом 7,5 тыс. печатных знаков по внеаудиторному чтению.

Структура экзамена:

1) прочитать фонетически правильно отрывок текста по специальности.

2) с помощью словаря письменно перевести на родной язык текст по специальности объемом 1100-1200 печатных знаков. Время подготовки – 45 минут.

3) прочитать текст общенаучной тематики объемом 800-900 печатных знаков и передать его содержание на иностранном или русском языке. Время подготовки – 20 минут.

Оценка учебных достижений студентов на экзамене по иностранному языку производится по 10-балльной шкале.

КРИТЕРИИ ОЦЕНИВАНИЯ ОТВЕТОВ СТУДЕНТОВ НА ЭКЗАМЕНЕ ПО ИНОСТРАННОМУ ЯЗЫКУ:

1) Письменный перевод текста по специальности:

10 (баллов) – полный, своевременный, безошибочный, стилистически верный перевод.

9 (баллов) – полный, своевременный, безошибочный перевод с 1-2 стилистическими погрешностями, не ведущими к искажению смысла.

8 (баллов) – полный, своевременный перевод с 1-2 лексико-грамматическими ошибками, не ведущими к искажению смысла.

7 (баллов) – полный, своевременный перевод с 3-4 лексико-грамматическими ошибками, не ведущими к искажению смысла.

6 (баллов) – полный, своевременный перевод с 5-6 лексико-грамматическими ошибками, не ведущими к искажению смысла.

5 (баллов) – неполный перевод текста (80%) + 7-8 лексико-грамматических ошибок.

4 (балла) – неполный перевод текста (70%) + 9-10 лексико-грамматических ошибок.

3 (балла) – неполный перевод текста (60%) + 11-12 лексико-грамматических ошибок.

2 (балла) – неполный перевод текста (50%) с большим количеством лексико-грамматических ошибок.

1 (балл) – перевод сделан на уровне отдельных слов и словосочетаний.

2) Передача содержания общенаучного текста на иностранном языке:

10 (баллов) – полное понимание содержания текста с передачей всех деталей смысловых связей в виде логически четко построенного сообщения.

9 (баллов) – полное понимание содержания текста с передачей всех деталей смысловых связей в виде недостаточно логически оформленного сообщения.

8 (баллов) – передача содержания текста с недостаточной полнотой.

7 (баллов) – передача содержания текста, содержащая 1-2 смысловые неточности.

6 (баллов) – передача содержания текста, содержащая 3-4 смысловые неточности.

5 (баллов) – ответ, отражающий содержание текста при наличии пропусков информации (не более 20%).

4 (балла) – ответ, отражающий содержание текста при наличии пропусков информации (не более 30%).

3 (балла) – понимание текста в общих чертах (60%).

2 (балла) – фрагментарное понимание содержания текста и неспособность изложить основную идею.

1 (балл) – полное непонимание текста.

3.3. Методические рекомендации по организации и выполнению самостоятельной

работы обучающихся по учебной дисциплине.

В числе эффективных педагогических методов (технологий) самостоятельной работы обучающихся рекомендуется использовать:

– технологии проблемно-модульного обучения;

– технологии учебно-исследовательской деятельности;

– проектные технологии;

– коммуникативные технологии (дискуссия, пресс-конференция, мозговой штурм, учебные дебаты и другие активные формы и методы);

– метод кейсов (анализ ситуации);

– игровые технологии, в рамках которых студенты участвуют в деловых, ролевых, имитационных играх;

– симуляцию;

– компьютерные технологии.

Самостоятельная внеаудиторная неуправляемая работа студентов включает следующие виды работ:

1) подготовка домашних заданий (выполнение грамматических упражнений, перевод текстов для изучающего и ознакомительного чтения);

2) использование интернет-сайтов для поиска учебной информации;

3) самостоятельное изучение общенаучной и терминологической лексики;

4) самостоятельное изучение тем, включенных в модуль социально-бытового и социокультурного общения (для заочной формы получения высшего образования и заочной форма получения высшего образования, интегрированного со средним специальным образованием);

5) подготовка докладов на научно-практические конференции;

6) подготовка к зачету, экзамену.

3.3.1. ДЛЯ СПЕЦИАЛЬНОСТЕЙ «ЭЛЕКТРОННЫЕ СИСТЕМЫ И ТЕХНОЛОГИИ (ПРОФИЛИЗАЦИЯ – КОМПОНЕНТЫ КИБЕРФИЗИЧЕСКИХ СИСТЕМ)», КОМПЬЮТЕРНАЯ ИНЖЕНЕРИЯ (ПРОФИЛИЗАЦИЯ – ВЫЧИСЛИТЕЛЬНЫЕ МАШИНЫ, СИСТЕМЫ И СЕТИ)», «ИСКУССТВЕННЫЙ ИНТЕЛЛЕКТ», «СИСТЕМЫ УПРАВЛЕНИЯ ИНФОРМАЦИЕЙ», «КОМПЬЮТЕРНАЯ ИНЖЕНЕРИЯ (ПРОФИЛИЗАЦИЯ – ПРОГРАММИРУЕМЫЕ МОБИЛЬНЫЕ СИСТЕМЫ)», «ПРОГРАММНАЯ ИНЖЕНЕРИЯ» (дневная форма получения высшего образования):

Самостоятельная работа студентов без контроля преподавателя осуществляется в объеме 96 часов, из них в 1 семестре – 48 часов, во 2 семестре – 48 часов.

Самостоятельная работа студентов включает самостоятельное изучение следующих тем по грамматике в 1 семестре:

– Имя существительных: число имен существительных; образование множественного числа и притяжательного падежа существительных.

– Местоимения: личные, притяжательные, возвратные, указательные, вопросительные, относительные и союзные, неопределенные, отрицательные, обобщающие. Местоимения it, one как заменители существительного.

– Степени сравнения прилагательных и наречий. Сравнительные конструкции с прилагательными. Место прилагательных и наречий в предложении.

– Числительные: количественные, порядковые, дробные.

– Повелительное наклонение.

– Модальные глаголы и их эквиваленты.

Самостоятельная работа студентов включает самостоятельное изучение следующих тем по грамматике во 2 семестре:

– Синтаксис: Простое предложение. Безличные предложения. Порядок слов в повествовательном, повелительном и вопросительном предложениях.

– Союз. Сочинительные и подчинительные союзы.

– Синтаксис: Сложное предложение. Типы придаточных предложений. Союзное и бессоюзное подчинение в придаточных предложениях.

– Отглагольное существительное.

– Основные словообразовательные модели.

– Усилительные конструкции.

– Слова-связки.

– Вводные слова и предложения.

3.3.2. ДЛЯ СПЕЦИАЛЬНОСТИ «СИСТЕМЫ УПРАВЛЕНИЯ ИНФОРМАЦИЕЙ» (заочная форма получения высшего образования):

Самостоятельная работа студентов без контроля преподавателя осуществляется в объеме 188 часов, из них в 1 семестре – 94 часа, во 2 семестре – 94 часа.

Самостоятельная работа студентов включает самостоятельное изучение следующих тем по грамматике в 1 семестре:

– Имя существительных: число имен существительных; образование множественного числа и притяжательного падежа существительных.

– Местоимения: личные, притяжательные, возвратные, указательные, вопросительные, относительные и союзные, неопределенные, отрицательные, обобщающие. Местоимения it, one как заменители существительного.

– Степени сравнения прилагательных и наречий. Сравнительные конструкции с прилагательными. Место прилагательных и наречий в предложении.

– Числительные: количественные, порядковые, дробные.

– Повелительное наклонение.

– Модальные глаголы и их эквиваленты.

Самостоятельная работа студентов включает самостоятельное изучение следующих тем по грамматике во 2 семестре:

– Синтаксис: Простое предложение. Безличные предложения. Порядок слов в повествовательном, повелительном и вопросительном предложениях.

– Союз. Сочинительные и подчинительные союзы.

– Синтаксис: Сложное предложение. Типы придаточных предложений. Союзное и бессоюзное подчинение в придаточных предложениях.

– Отглагольное существительное.

– Основные словообразовательные модели.

– Усилительные конструкции.

– Слова-связки.

– Вводные слова и предложения.

3.3.3. ДЛЯ СПЕЦИАЛЬНОСТИ «ЭЛЕКТРОННЫЕ СИСТЕМЫ И ТЕХНОЛОГИИ (ПРОФИЛИЗАЦИЯ – КОМПОНЕНТЫ КИБЕРФИЗИЧЕСКИХ СИСТЕМ)» (заочная форма получения высшего образования, интегрированного со средним специальным образованием):

Самостоятельная работа студентов без контроля преподавателя осуществляется в объеме 188 часов, из них в 1 семестре – 94 часа, во 2 семестре – 94 часа.

Самостоятельная работа студентов включает самостоятельное изучение следующих тем по грамматике в 1 семестре:

– Имя существительных: число имен существительных; образование множественного числа и притяжательного падежа существительных.

– Местоимения: личные, притяжательные, возвратные, указательные, вопросительные, относительные и союзные, неопределенные, отрицательные, обобщающие. Местоимения it, one как заменители существительного.

– Степени сравнения прилагательных и наречий. Сравнительные конструкции с прилагательными. Место прилагательных и наречий в предложении.

– Числительные: количественные, порядковые, дробные.

– Повелительное наклонение.

– Модальные глаголы и их эквиваленты.

Самостоятельная работа студентов включает самостоятельное изучение следующих тем по грамматике во 2 семестре:

– Синтаксис: Простое предложение. Безличные предложения. Порядок слов в повествовательном, повелительном и вопросительном предложениях.

– Союз. Сочинительные и подчинительные союзы.

– Синтаксис: Сложное предложение. Типы придаточных предложений. Союзное и бессоюзное подчинение в придаточных предложениях.

– Отглагольное существительное.

– Основные словообразовательные модели.

– Усилительные конструкции.

– Слова-связки.

– Вводные слова и предложения.

Учебная программа дисциплины. Французский язык

К-1 2024

Учреждение образования
«Брестский государственный технический университет»

УТВЕРЖДАЮ
Проректор по учебной работе БрГТУ
_____ М.В.Нерода
28.06. 2024

Регистрационный № УД- 24-1-012 /уч.

Иностранный язык (французский)

Учебная программа учреждения высшего образования по учебной дисциплине для специальностей:

6-05-0713-02 Электронные системы и технологии (профилизация – Компоненты киберфизических систем)
6-05-0612-03 Системы управления информацией

2024 г.

Учебная программа составлена на основе образовательных стандартов ОСВО 6-05-0713-02-2023 Электронные системы и технологии, ОСВО 6-05-0612-03 Системы управления информацией, утвержденных постановлением Министерства образования Республики Беларусь № 246 от 10.08.2023 (с учетом изменений, внесенных в постановление Министерства образования Республики Беларусь № 355 от 22.11.2023), примерной учебной программы «Иностранный язык», утвержденной Министерством образования Республики Беларусь 06.12.2023, регистрационный № 6-05-06-034/пр. и учебных планов, разработанных на основе примерных учебных планов, для специальности 6-05-0713-02-2023 Электронные системы и технологии, регистрационный номер № 6-05-07-006/пр., 6-05-0612-03 Системы управления информацией, регистрационный номер № 6-05-07-007/пр., утвержденных постановлением Министерства образования Республики Беларусь 17.11.2022.

СОСТАВИТЕЛЬ:
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РЕКОМЕНДОВАНА К УТВЕРЖДЕНИЮ:

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Заведующий кафедрой _____ В.И.Рахуба
(протокол № 8 от 26.04.2024);

Методической комиссией факультета электронно-информационных систем
Председатель методической комиссии _____ С.С.Дереченник
(протокол № 8 от 20.05.2024);

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Методист УМО В.Н. Сафоч

ПОЯСНИТЕЛЬНАЯ ЗАПИСКА

Статус иностранного языка как общеобразовательной дисциплины, реально востребуемой в практической и интеллектуальной деятельности специалиста, является в современном поликультурном и многоязычном мире особенно значимым. Иностранный язык рассматривается не только в качестве средства межкультурного и профессионального общения, но и средства формирования личности как субъекта национальной и мировой культуры.

Учебная программа разработана с учетом основных положений концепции обучения иностранным языкам в системе непрерывного образования Республики Беларусь, концепции современного языкового образования, а также в соответствии с нормативными документами. Курс обучения иностранному (французскому) языку рассматривается как продолжение курса изучения иностранного языка в учреждении среднего образования с соблюдением принципа преемственности.

Главная цель обучения иностранному языку заключается в формировании иноязычной коммуникативной компетенции будущего специалиста, позволяющей использовать иностранный язык как средство межличностного и профессионального общения. Достижение главной цели предполагает комплексную реализацию познавательной, развивающей, воспитательной и практической целей.

В качестве стратегической интегративной компетенции в процессе обучения иностранным языкам выступает коммуникативная компетенция в единстве всех составляющих: языковой, речевой, социокультурной, компенсаторной, учебно-познавательной компетенций.

Языковая компетенция – совокупность языковых средств.

Речевая компетенция – совокупность навыков и умений речевой деятельности (говорение, письмо, аудирование, чтение), знание норм речевого поведения, способность использовать языковые средства в связной речи в соответствии с ситуацией общения.

Социокультурная компетенция – совокупность знаний о национально-культурной специфике стран изучаемого языка и связанных с этим умений корректно строить свое речевое и неречевое поведение.

Компенсаторная компетенция – совокупность умений использовать дополнительные вербальные средства и невербальные способы решения коммуникативных задач в условиях дефицита имеющихся языковых средств.

Учебно-познавательная компетенция – совокупность общих и специальных учебных умений, необходимых для осуществления самостоятельной деятельности по овладению иностранным языком.

Основными задачами изучения дисциплины являются:

– унификация полученных ранее умений и навыков чтения текстов на расширенном языковом материале;

– формирование умений и навыков чтения и понимания текстов по специальности в ситуациях поиска смысловой информации;

– владение профессиональной лексикой;

– знакомство с историей и культурой страны изучаемого языка.

В результате изучения учебной дисциплины «Иностранный язык (французский)» у студентов формируются следующие универсальные компетенции:

УК-3. Осуществлять коммуникации, в том числе на иностранном языке, для решения задач межличностного, профессионального и межкультурного взаимодействия.

В результате изучения дисциплины студент должен:

ЗНАТЬ:

– систему иностранного языка в его фонетическом, лексическом и грамматическом аспектах;

– социокультурные нормы бытового, делового и профессионального общения, а также правила речевого этикета, позволяющие будущему специалисту эффективно использовать иностранный язык как средство общения в современном поликультурном мире;

– историю и культуру страны изучаемого языка;

– основные формы культурной коммуникации;

УМЕТЬ:

– вести общение профессионального и социокультурного характера на иностранном языке, сочетая диалогические и монологические формы речи;

– читать и переводить литературу по специальности (изучающее, ознакомительное, просмотровое и поисковое чтение);

– письменно выражать свои коммуникативные намерения в сфере профессиональной деятельности;

– составлять письменные документы, используя реквизиты делового письма, заполнять бланки на участие в конференциях, семинарах и т.д.;

– реферировать и аннотировать профессионально-ориентированные и общенаучные тексты;

– понимать аутентичную иноязычную речь на слух;

ВЛАДЕТЬ:

– методами компенсации лингвистического и экстралингвистического характера;

– методами мониторинга и исправления ошибок.

В числе эффективных педагогических методов (технологий), способствующих вовлечению студентов в поиск и управление знаниями, приобретению опыта самостоятельного решения речемыслительных задач, рекомендуется использовать:

– технологии проблемно-модульного обучения;

– коммуникативные технологии (дискуссия, пресс-конференция, мозговой штурм, учебные дебаты и другие активные формы и методы);

– метод кейсов (анализ ситуации);

– игровые технологии, в рамках которых студенты участвуют в деловых, ролевых, имитационных играх;

– компьютерные технологии.

План учебной дисциплины для заочной формы получения высшего образования

Код специальности (направления специальности)	Наименование специальности (направления специальности)	Курс	Семестр	Всего учебных часов	Количество зачетных единиц	Аудиторных часов (в соответствии с учебным планом УВО)					Академических часов на курсовой проект (работу)	Форма текущей аттестации
						Всего	Лекции	Лабораторные занятия	Практические занятия	Семинары		
6-05-0612-03	Системы управления информацией	1	1	108	3	14	–	–	14	–	–	зачет
		1	2	108	3	14	–	–	14	–	–	экзамен

План учебной дисциплины для заочной формы получения высшего образования, интегрированного со средним специальным образованием

Код специальности (направления специальности)	Наименование специальности (направления специальности)	Курс	Семестр	Всего учебных часов	Количество зачетных единиц	Аудиторных часов (в соответствии с учебным планом УВО)					Академических часов на курсовой проект (работу)	Форма текущей аттестации
						Всего	Лекции	Лабораторные занятия	Практические занятия	Семинары		
6-05-0713-02	Электронные системы и технологии (профилизация – Компоненты киберфизических систем)	1	1	108	3	14	–	–	14	–	–	зачет
		1	2	108	3	14	–	–	14	–	–	экзамен

1. СОДЕРЖАНИЕ УЧЕБНОГО МАТЕРИАЛА

1. Модуль социально-бытового и социокультурного общения

Тема 1.1. Новый этап в моей жизни.

Языковой материал: лексический минимум; грамматика: притяжательные и указательные прилагательные и местоимения, временные формы глагола в Présent.

Тема 1.2. БрГТУ в системе высшего образования Беларуси.

Языковой материал: лексический минимум; грамматика: неопределенные местоимения, временные формы глагола в Imparfait.

Тема 1.3. Республика Беларусь в современном мире.

Языковой материал: лексический минимум; грамматика: личные приглагольные местоимения в Passé composé, неопределенно-личное местоимение «on», безличные глаголы и выражения.

Тема 1.4. Социально-политический портрет Франции.

Языковой материал: лексический минимум; грамматика: временные формы глагола в Futur simple, Forme passive.

Тема 1.5. Моя будущая специальность и ее значение в экономическом развитии РБ.

Языковой материал: лексический минимум; грамматика: неличные формы глагола – Participe passé.

2. Модуль профессионального общения

Тема 2.1. Компьютер и его составляющие (компоненты).

Языковой материал: лексический минимум; грамматика: временные формы глагола в Temps immédiats, Impératif, возвратные глаголы.

Тема 2.2. Компьютерные сети, передача данных.

Языковой материал: лексический минимум; грамматика: временные формы глагола в Plus-que-parfait, имя прилагательное, особые случаи образования женского рода и множественного числа, степени сравнения.

Тема 2.3. Программное обеспечение.

Языковой материал: лексический минимум; грамматика: временные формы глагола в Passé simple, имя существительное: образование женского рода и множественного числа.

Тема 2.4. Языки программирования.

Языковой материал: лексический минимум; грамматика: Futur dans le passé, Concordance des temps de l'Indicatif.

Тема 2.5. Информационные технологии.

Языковой материал: лексический минимум; грамматика: неличные формы глагола – Participe présent, Gérondif.

Тема 2.6. Компьютерная безопасность.

Языковой материал: лексический минимум; грамматика: Conditionnel présent, Conditionnel passé.

Тема 2.7. Телекоммуникации (электросвязь).

Языковой материал: лексический минимум; грамматика:Subjonctif présent.

2.1. УЧЕБНО-МЕТОДИЧЕСКАЯ КАРТА УЧЕБНОЙ ДИСЦИПЛИНЫ
для заочной формы получения высшего образования для специальности:
6-05-0612-03 СИСТЕМЫ УПРАВЛЕНИЯ ИНФОРМАЦИЕЙ

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	1-й семестр						
1.5.	Моя будущая специальность и ее значение в экономическом развитии РБ. Текст: Моя будущая профессия. Технология и технический прогресс. Грамматический материал: неличные формы глагола – Participe passé.			2		22	Выполнение упражнений, перевод, ответы на вопросы, реферирование, пересказ. Беседа по теме.
2.1.	Компьютер и его составляющие (компоненты). Текст: Аппаратное обеспечение. Грамматический материал: временные формы глагола в Temps immédiats, Impératif, возвратные глаголы.			4		24	Выполнение упражнений, перевод, ответы на вопросы, реферирование, пересказ. Беседа по теме.
2.2.	Компьютерные сети, передача данных. Текст: Типология сетей. Компоненты сети. Грамматический материал: временные формы глагола в Plus-que-parfait, имя прилагательное, особые случаи образования женского рода и множественного числа, степени сравнения.			4		24	Выполнение упражнений, перевод, ответы на вопросы, реферирование, пересказ. Беседа по теме.
2.3.	Программное обеспечение. Текст: Программирование. Грамматический материал: временные формы глагола в Passé simple, имя существительное: образование женского рода и множественного числа. Прием внеаудиторного чтения.			4		24	Выполнение упражнений, перевод, ответы на вопросы, реферирование, пересказ. Беседа по теме.
	2-й семестр						
2.4.	Языки программирования. Текст: Типы языков программирования. Грамматический материал: Futur dans le passé, Concordance des temps de l'Indicatif.			2		22	Выполнение упражнений, перевод, ответы на вопросы, реферирование, пересказ. Беседа по теме.
2.5.	Информационные технологии. Текст: Интернет. Внутренняя сеть предприятия. Грамматический материал: неличные формы глагола – Participe présent, Gérondif.			4		24	Выполнение упражнений, перевод, ответы на вопросы, реферирование, пересказ. Беседа по теме.
2.6.	Компьютерная безопасность. Текст: Безопасность информационных систем. Грамматический материал: Conditionnel présent, Conditionnel passé.			4		24	Выполнение упражнений, перевод, ответы на вопросы, реферирование, пересказ. Беседа по теме.
2.7.	Телекоммуникации (электросвязь). Текст: Телекоммуникационные технологии. Грамматический материал: Subjonctif présent. Прием внеаудиторного чтения.			4		24	Выполнение упражнений, перевод, ответы на вопросы, реферирование, пересказ. Беседа по теме.

2.2. УЧЕБНО-МЕТОДИЧЕСКАЯ КАРТА УЧЕБНОЙ ДИСЦИПЛИНЫ
для заочной формы получения высшего образования, интегрированного со средним специальным образованием, для специальности:
6-05-0713-02 ЭЛЕКТРОННЫЕ СИСТЕМЫ И ТЕХНОЛОГИИ
(ПРОФИЛИЗАЦИЯ – КОМПОНЕНТЫ КИБЕРФИЗИЧЕСКИХ СИСТЕМ)

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	1-й семестр						
1.5.	Моя будущая специальность и ее значение в экономическом развитии РБ. Текст: Моя будущая профессия. Технология и технический прогресс. Грамматический материал: неличные формы глагола – Participe passé.			2		22	Выполнение упражнений, перевод, ответы на вопросы, реферирование, пересказ. Беседа по теме.
2.1.	Компьютер и его составляющие (компоненты). Текст: Аппаратное обеспечение. Грамматический материал: временные формы глагола в Temps immédiats, Impératif, возвратные глаголы.			4		24	Выполнение упражнений, перевод, ответы на вопросы, реферирование, пересказ. Беседа по теме.
2.2.	Компьютерные сети, передача данных. Текст: Типология сетей. Компоненты сети. Грамматический материал: временные формы глагола в Plus-que-parfait, имя прилагательное, особые случаи образования женского рода и множественного числа, степени сравнения.			4		24	Выполнение упражнений, перевод, ответы на вопросы, реферирование, пересказ. Беседа по теме.
2.3.	Программное обеспечение. Текст: Программирование. Грамматический материал: временные формы глагола в Passé simple, имя существительное: образование женского рода и множественного числа. Прием внеаудиторного чтения.			4		24	Выполнение упражнений, перевод, ответы на вопросы, реферирование, пересказ. Беседа по теме.
	2-й семестр						
2.4.	Языки программирования. Текст: Типы языков программирования. Грамматический материал: Futur dans le passé, Concordance des temps de l'Indicatif.			2		22	Выполнение упражнений, перевод, ответы на вопросы, реферирование, пересказ. Беседа по теме.
2.5.	Информационные технологии. Текст: Интернет. Внутренняя сеть предприятия. Грамматический материал: неличные формы глагола – Participe présent, Gérondif.			4		24	Выполнение упражнений, перевод, ответы на вопросы, реферирование, пересказ. Беседа по теме.
2.6.	Компьютерная безопасность. Текст: Безопасность информационных систем. Грамматический материал: Conditionnel présent, Conditionnel passé.			4		24	Выполнение упражнений, перевод, ответы на вопросы, реферирование, пересказ. Беседа по теме.
2.7.	Телекоммуникации (электросвязь). Текст: Телекоммуникационные технологии. Грамматический материал: Subjonctif présent. Прием внеаудиторного чтения.			4		24	Выполнение упражнений, перевод, ответы на вопросы, реферирование, пересказ. Беседа по теме.

3. ИНФОРМАЦИОННО-МЕТОДИЧЕСКАЯ ЧАСТЬ

3.1. Перечень литературы (учебной, учебно-методической, научной, нормативной, др.).

Основная:

1. Учебно-методический комплекс по учебной дисциплине «Иностранный язык» для специальностей: для АСОИ, ВМСиС, ИИ, ПМС, ПОИТ, ПЭ / Брестский государственный технический университет, Кафедра иностранных языков ; сост.: О. Л. Зозуля, Е. В. Копчак, О. В. Бань, М. В. Борушко. – Брест : БрГТУ, 2020.

Дополнительная:

2. О.В. Соболевская, Французский язык для студентов технических специальностей: тексты для чтения и перевода (Учебно-методическое пособие для практической работы). – Томск : ТУСУР, 2018.

3. С.В. Венскович, Е.В. Копчак, Компьютер и другие современные электронные устройства (Пособие для студентов факультета электронно-информационных систем и заочного обучения). – Брест : БрГТУ, 2016.

4. А.В. Коржавин, Практический курс французского языка для технических вузов. – М. : Высшая школа, 2000.

5. С.В. Венскович, З.И. Мешко, Е.В. Копчак, Французский язык: методические указания по развитию устной речи (для студентов технических специальностей). – Брест : БрГТУ, 2009.

6. С.В. Венскович, О.И. Гумянко, Сборник текстов для чтения и обсуждения. – Брест : БрГТУ, 2012.

7. А.И. Иванченко, Грамматика французского языка в упражнениях. – Санкт-Петербург : КАРО, 2014.

8. Г.М. Колпакова, Новый французско-русский политехнический словарь. – М. : РУССО, 2006.

9. Онлайн-энциклопедия [Электронный ресурс]. – Режим доступа: https://fr.wikipedia.org/wiki/Wikipédia:Accueil_principal – Дата доступа: 19.03.2024.

3.2. Перечень средств диагностики результатов учебной деятельности.

3.2.1. ДЛЯ СПЕЦИАЛЬНОСТИ «СИСТЕМЫ УПРАВЛЕНИЯ ИНФОРМАЦИЕЙ» (заочная форма получения высшего образования):

ИТОГОВЫЙ КОНТРОЛЬ представляет собой обобщение и систематизацию изученного учебного материала по всем аспектам иностранного языка и осуществляется в форме зачета и экзамена.

Зачет проводится в конце 1 семестра в форме компьютерного теста и выставляется с учетом выполнения программы текущего семестра: выполнение программы практических аудиторных занятий; сдача текстов профессиональной направленности по внеаудиторному чтению объемом 7,5 тыс. печатных знаков.

Экзамен проводится в конце 2 семестра. К экзамену допускаются студенты, выполнившие программу практических аудиторных занятий и сдавшие тексты по специальности объемом 7,5 тыс. печатных знаков по внеаудиторному чтению.

Структура экзамена:

1) прочитать фонетически правильно отрывок текста по специальности.

2) с помощью словаря письменно перевести на родной язык текст по специальности объемом 1100-1200 печатных знаков. Время подготовки – 45 минут.

3) прочитать текст общенаучной тематики объемом 800-900 печатных знаков и передать его содержание на иностранном или русском языке. Время подготовки – 20 минут.

Оценка учебных достижений студентов на экзамене по иностранному языку

производится по 10-балльной шкале.

3.2.2. ДЛЯ СПЕЦИАЛЬНОСТИ «ЭЛЕКТРОННЫЕ СИСТЕМЫ И ТЕХНОЛОГИИ (ПРОФИЛИЗАЦИЯ – КОМПОНЕНТЫ КИБЕРФИЗИЧЕСКИХ СИСТЕМ)» (заочная форма получения высшего образования, интегрированного со средним специальным образованием):

ИТОГОВЫЙ КОНТРОЛЬ представляет собой обобщение и систематизацию изученного учебного материала по всем аспектам иностранного языка и осуществляется в форме зачета и экзамена.

Зачет проводится в конце 1 семестра и выставляется по результатам выполнения программы текущего семестра: выполнение программы практических аудиторных занятий; сдача текстов профессиональной направленности по внеаудиторному чтению объемом 7,5 тыс. печатных знаков.

Экзамен проводится в конце 2 семестра. К экзамену допускаются студенты, выполнившие программу практических аудиторных занятий и сдавшие тексты по специальности объемом 7,5 тыс. печатных знаков по внеаудиторному чтению.

Структура экзамена:

1) прочитать фонетически правильно отрывок текста по специальности.

2) с помощью словаря письменно перевести на родной язык текст по специальности объемом 1100-1200 печатных знаков. Время подготовки – 45 минут.

3) прочитать текст общенаучной тематики объемом 800-900 печатных знаков и передать его содержание на иностранном или русском языке. Время подготовки – 20 минут.

Оценка учебных достижений студентов на экзамене по иностранному языку производится по 10-балльной шкале.

КРИТЕРИИ ОЦЕНИВАНИЯ ОТВЕТОВ СТУДЕНТОВ НА ЭКЗАМЕНЕ ПО ИНОСТРАННОМУ ЯЗЫКУ:

1) Письменный перевод текста по специальности:

10 (баллов) – полный, своевременный, безошибочный, стилистически верный перевод.
9 (баллов) – полный, своевременный, безошибочный перевод с 1-2 стилистическими погрешностями, не ведущими к искажению смысла.
8 (баллов) – полный, своевременный перевод с 1-2 лексико-грамматическими ошибками, не ведущими к искажению смысла.
7 (баллов) – полный, своевременный перевод с 3-4 лексико-грамматическими ошибками, не ведущими к искажению смысла.
6 (баллов) – полный, своевременный перевод с 5-6 лексико-грамматическими ошибками, не ведущими к искажению смысла.
5 (баллов) – неполный перевод текста (80%) + 7-8 лексико-грамматических ошибок.
4 (балла) – неполный перевод текста (70%) + 9-10 лексико-грамматических ошибок.
3 (балла) – неполный перевод текста (60%) + 11-12 лексико-грамматических ошибок.
2 (балла) – неполный перевод текста (50%) с большим количеством лексико-грамматических ошибок.
1 (балл) – перевод сделан на уровне отдельных слов и словосочетаний.

2) Передача содержания общенаучного текста на иностранном языке:

10 (баллов) – полное понимание содержания текста с передачей всех деталей смысловых связей в виде логически четко построенного сообщения.
9 (баллов) – полное понимание содержания текста с передачей всех деталей смысловых связей в виде недостаточно логически оформленного сообщения.
8 (баллов) – передача содержания текста с недостаточной полнотой.
7 (баллов) – передача содержания текста, содержащая 1-2 смысловые неточности.
6 (баллов) – передача содержания текста, содержащая 3-4 смысловые неточности.

5 (баллов) – ответ, отражающий содержание текста при наличии пропусков информации (не более 20%).
4 (балла) – ответ, отражающий содержание текста при наличии пропусков информации (не более 30%).
3 (балла) – понимание текста в общих чертах (60%).
2 (балла) – фрагментарное понимание содержания текста и неспособность изложить основную идею.
1 (балл) – полное непонимание текста.

3.3. Методические рекомендации по организации и выполнению самостоятельной работы обучающихся по учебной дисциплине.

В числе эффективных педагогических методов (технологий) самостоятельной работы обучающихся рекомендуется использовать:

– технологии проблемно-модульного обучения;

– технологии учебно-исследовательской деятельности;

– проектные технологии;

– коммуникативные технологии (дискуссия, пресс-конференция, мозговой штурм, учебные дебаты и другие активные формы и методы);

– метод кейсов (анализ ситуации);

– игровые технологии, в рамках которых студенты участвуют в деловых, ролевых, имитационных играх;

– симуляцию;

– компьютерные технологии.

Самостоятельная внеаудиторная неуправляемая работа студентов включает следующие виды работ:

1) подготовка домашних заданий (перевод текстов для изучающего и ознакомительного чтения);

2) использование интернет-сайтов для поиска учебной информации;

3) самостоятельное изучение общенаучной и терминологической лексики;

4) подготовка к зачету, экзамену.

3.3.1. ДЛЯ СПЕЦИАЛЬНОСТИ «СИСТЕМЫ УПРАВЛЕНИЯ ИНФОРМАЦИЕЙ» (заочная форма получения высшего образования):

Самостоятельная работа студентов без контроля преподавателя осуществляется в объеме 188 часов, из них в 1 семестре – 94 часа, во 2 семестре – 94 часа.

Самостоятельная работа студентов включает самостоятельное изучение следующих тем по грамматике в 1 семестре:

1. Подготовка текстов по специальности для внеаудиторного дополнительного чтения (изучающее, ознакомительное и просмотровое чтение) объемом 7,5 тыс. печатных знаков.

2. Использование интернет-сайтов для поиска текстов по внеаудиторному чтению.

3. Самостоятельное изучение общенаучной и терминологической лексики.

4. Самостоятельное изучение следующих тем по грамматике:

– Имя существительное: образование множественного числа.

– Степени сравнения прилагательных и наречий. Сравнительные конструкции с прилагательными.

– Числительные: количественные, порядковые, дробные.

– Глагол: видовременные формы действительного и страдательного залогов.

– Повелительное наклонение.

– Причастие. Деепричастие. Образование и использование.

– Синтаксис: Простое предложение. Порядок слов. Безличные предложения.

5. Подготовка к зачету.

Самостоятельная работа студентов включает самостоятельное изучение следующих тем по грамматике во 2 семестре:

1. Подготовка текстов по специальности для внеаудиторного дополнительного чтения (изучающее, ознакомительное и просмотровое чтение) объемом 7,5 тыс. печатных знаков.

2. Использование интернет-сайтов для поиска текстов по внеаудиторному чтению.

3. Самостоятельное изучение общенаучной и терминологической лексики.

4. Самостоятельное изучение следующих тем по грамматике:

– Союз. Сочинительные и подчинительные союзы.

– Синтаксис: Сложное предложение. Типы придаточных предложений.– Образование и использование.

– Сослагательное наклонение. Употребление сослагательного наклонения в придаточных предложениях.

– Прямой и обратный порядок слов в сложном предложении.

– Прямая и косвенная речь.

– Предлоги места, времени, направления. Предлоги, совпадающие по форме с наречиями. Место предлога в предложении.

– Усилительные конструкции.

– Слова-связки.

– Вводные слова и предложения.

– Интернациональные слова.

5. Подготовка к экзамену.

3.3.2. ДЛЯ СПЕЦИАЛЬНОСТИ «ЭЛЕКТРОННЫЕ СИСТЕМЫ И ТЕХНОЛОГИИ (ПРОФИЛИЗАЦИЯ – КОМПОНЕНТЫ КИБЕРФИЗИЧЕСКИХ СИСТЕМ)» (заочная форма получения высшего образования, интегрированного со средним специальным образованием):

Самостоятельная работа студентов без контроля преподавателя осуществляется в объеме 188 часов, из них в 1 семестре – 94 часа, во 2 семестре – 94 часа.

Самостоятельная работа студентов включает самостоятельное изучение следующих тем по грамматике в 1 семестре:

1. Подготовка текстов по специальности для внеаудиторного дополнительного чтения (изучающее, ознакомительное и просмотровое чтение) объемом 7,5 тыс. печатных знаков.

2. Использование интернет-сайтов для поиска текстов по внеаудиторному чтению.

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4. Самостоятельное изучение следующих тем по грамматике:

– Имя существительное: образование множественного числа.

– Степени сравнения прилагательных и наречий. Сравнительные конструкции с прилагательными.

– Числительные: количественные, порядковые, дробные.

– Глагол: видовременные формы действительного и страдательного залогов.

– Повелительное наклонение.

– Причастие. Деепричастие. Образование и использование.

– Синтаксис: Простое предложение. Порядок слов. Безличные предложения.

5. Подготовка к зачету.

Самостоятельная работа студентов включает самостоятельное изучение следующих тем по грамматике во 2 семестре:

1. Подготовка текстов по специальности для внеаудиторного дополнительного чтения (изучающее, ознакомительное и просмотровое чтение) объемом 7,5 тыс. печатных знаков.

2. Использование интернет-сайтов для поиска текстов по внеаудиторному чтению.

3. Самостоятельное изучение общенаучной и терминологической лексики.

4. Самостоятельное изучение следующих тем по грамматике:

– Союз. Сочинительные и подчинительные союзы.

– Синтаксис: Сложное предложение. Типы придаточных предложений.– Образование и использование.

– Сослагательное наклонение. Употребление сослагательного наклонения в придаточных предложениях.

– Прямой и обратный порядок слов в сложном предложении.

– Прямая и косвенная речь.

– Предлоги места, времени, направления. Предлоги, совпадающие по форме с наречиями. Место предлога в предложении.

– Усилительные конструкции.

– Слова-связки.

– Вводные слова и предложения.

– Интернациональные слова.

5. Подготовка к экзамену.

Список литературы для самостоятельной работы:

1. С.В. Венскович, Е.В. Копчак, Компьютер и другие современные электронные устройства (Пособие для студентов факультета электронно-информационных систем и заочного обучения). – Брест : БрГТУ, 2016.

2. А.В. Коржавин, Практический курс французского языка для технических вузов. – М. : Высшая школа, 2000.

3. С.В. Венскович, З.И. Мешко, Е.В. Копчак, Французский язык: методические указания по развитию устной речи (для студентов технических специальностей). – Брест : БрГТУ, 2009.

4. А.И. Иванченко, Грамматика французского языка в упражнениях. – Санкт-Петербург : КАРО, 2014.

5. Г.М. Колпакова, Новый французско-русский политехнический словарь. – М. : РУССО, 2006.

6. Онлайн-энциклопедия [Электронный ресурс]. – Режим доступа: https://fr.wikipedia.org/wiki/Wikipédia:Accueil_principal – Дата доступа: 19.03.2024.

ПРОТОКОЛ СОГЛАСОВАНИЯ УЧЕБНОЙ ПРОГРАММЫ
ПО ДИСЦИПЛИНЕ «ИНОСТРАННЫЙ ЯЗЫК (ФРАНЦУЗСКИЙ)»
С ДРУГИМИ ДИСЦИПЛИНАМИ СПЕЦИАЛЬНОСТИ

Название учебной дисциплины, с которой требуется согласование	Название кафедры	Предложения об изменениях в содержании учебной программы учреждения высшего образования по учебной дисциплине	Решение, принятое кафедрой, разработавшей учебную программу (с указанием даты и номера протокола)
Аппаратное обеспечение интеллектуальных систем Традиционные и интеллектуальные информационные технологии	Интеллектуальных информационных технологий		Рассмотрена и рекомендована к утверждению протокол № 8 от 26.04.24
Электронные приборы	Электронных вычислительных машин и систем		Рассмотрена и рекомендована к утверждению протокол № 8 от 26.04.24

Содержание учебной программы
согласовано с выпускающей кафедрой

Заведующий выпускающей кафедрой,
кандидат технических наук, доцент С.С.Дереченник

Заведующий выпускающей кафедрой,
доктор технических наук, профессор В.А.Головко

Рекомендуемая литература.

Английский язык

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