#### Учреждение образования

#### «Брестский государственный технический университет»

Экономический факультет

Кафедра лингвистических дисциплин и межкультурных коммуникаций

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202 Уг.

#### ЭЛЕКТРОННЫЙ УЧЕБНО-МЕТОДИЧЕСКИЙ КОМПЛЕКС по учебной дисциплине ИНОСТРАННЫЙ ЯЗЫК (английский)

для специальностей 7-07-0732-01 Строительство зданий и сооружений (профилизация – Эффективные строительные технологии) 7-07-0732-01 Строительство зданий и сооружений (профилизация – Строительство и гражданская инженерия)

Составители: старший преподаватель, м.п.н. Боровикова Н.А.

Рассмотрено и утверждено на заседании Паучно-методического совета универси тета <u>А4. 14 яв24</u>г., протокол № <u>А</u>.

per a GREK 24/88-38

#### ПОЯСНИТЕЛЬНАЯ ЗАПИСКА

## к электронному учебно-методическому комплексу по учебной дисциплине «Иностранный язык» для специальностей

7-07-0732-01 Строительство зданий и сооружений (профилизация – Эффективные строительные технологии)

7-07-0732-01 Строительство зданий и сооружений (профилизация – Строительство и гражданская инженерия)

Актуальность изучения дисциплины

Статус иностранного языка как общеобразовательной дисциплины, реально востребованной 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.

Цель и задачи дисциплины

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, учебнопознавательной компетенций.

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 (для кого предназначен, на основании каких документов разработан)

Электронный учебно-методический комплекс предназначен для студентов специальностей 7-07-0732-01 Строительство зданий и сооружений (профилизация — Эффективные строительные технологии), 7-07-0732-01 Строительство зданий и сооружений (профилизация — Строительство и гражданская инженения) дневной формы обучения.

ЭУМК разработан в соответствии со следующими документами:

- 1. Требованиями кодекса Республики Беларусь «Об образовании» от 13.01.2011г. № 243-3 (с дополнениями и изменениями).
- 2. Положением об учебно-методическом комплексе на уровне высшего образования, утвержденным постановлением Министерства образования Республики Беларусь №167 от 26.07.2011 г. «Об утверждении положений об учебно-методических комплексах по уровням основного образования».
- 3. Учебной программой по дисциплине «Иностранный язык (английский)», утвержденной 23.06.2023, регистрационный номер № УД-23-1-019/уч.

Цели ЭУМК

Основной целью ЭУМК является повышение исходного уровня владения иностранным языком и формирование у обучающихся иноязычных компетенций, позволяющих им решать социально-коммуникативные задачи в профессиональной сфере, формирование навыков говорения, чтения и письма, развитие грамматических навыков.

Содержание и объем ЭУМК полностью соответствуют образовательным стандартам высшего образования специальностей 7-07-0732-01 Строительство зданий и сооружений (профилизация — Эффективные строительные технологии), 7-07-0732-01 Строительство зданий и сооружений (профилизация — Строительство и гражданская инженения), 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 отдельных ее тем, а также по организации управляемой самостоятельной работы студентов.

*Практический раздел ЭУМК содержит* методические материалы к практическим занятиям, аутентичные тесты и материалы по изучаемым темам;

**Раздел контроля знаний ЭУМК содержит** перечень материалов для самостоятельного изучения студентами, вопросы к зачету, образцы тестов;

**Вспомогательный раздел ЭУМК включает** учебную программу по дисциплине «Иностранный язык».

#### Краткий паспорт дисциплины

	Строительство зданий и сооружений (профилизация – Эффективные строительные технологии)		Строительство зданий и сооружений (профилизация – Строительство и гражданская инженения)	
	семестр	семестр	семестр	семестр
	1	2	1	2
Практические (семинарские) занятия (часов)	50	50	50	50
Зачет (+/-)	+	_	+	_
Экзамен (+/-)	_	+	_	+

#### ПЕРЕЧЕНЬ МАТЕРИАЛОВ В УЧЕБНО-МЕТОДИЧЕСКОМ КОМПЛЕКСЕ

#### Электронный учебно-методический комплекс содержит:

#### 1. ТЕОРЕТИЧЕСКИЙ РАЗДЕЛ

- 1.1. Методические рекомендации по изучению дисциплины
- 1.2. Методические рекомендации по организации самостоятельной работы студентов

#### 2. ПРАКТИЧЕСКИЙ РАЗДЕЛ

2.1. Материалы для практических занятий по дисциплине

#### 3. РАЗДЕЛ КОНТРОЛЯ ЗНАНИЙ

- 3.1. Виды контроля
- 3.1.1. Текущий контроль
- 3.1.2. Рубежный контроль
- 3.1.3. Промежуточный контроль (устная и письменная форма)
- 3.1.4. Текущая аттестация
- 3.1.5. Итоговый контроль
- 3.2. Тесты и контрольные работы
- 3.3. Критерии оценивания работы студентов

#### 4. ВСПОМОГАТЕЛЬНЫЙ РАЗДЕЛ

- 4.1. Словари
- 4.2. Учебная программа дисциплины

#### 1. ТЕОРЕТИЧЕСКИЙ РАЗДЕЛ

#### 1.1. МЕТОДИЧЕСКИЕ РЕКОМЕНДАЦИИ ПО ИЗУЧЕНИЮ ДИСЦИПЛИНЫ

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 экономики.

Учебный план дисциплины «Иностранный язык» предусматривает практические занятия в аудитории (под руководством преподавателя) и вне учебной аудитории (самостоятельную работу студентов с последующим контролем преподавателя) на протяжении 2 семестров на 1 курсе.

В своей концепции учебный курс опирается на разработанные Советом Европы «Общеевропейские компетенции владения иностранным языком».

Данный курс предусматривает наличие навыков элементарного владения иностранным языком на Предпороговом уровне A2. Наряду со стартовым тестированием, могут быть использованы методы самооценки для определения начального уровня языковой компетенции. С этой целью рекомендуется ответить на следующие вопросы:

Анкета для определения соответствия уровню А2

Я понимаю на слух отдельные фразы и наиболее употребительные слов в высказываниях?

Я понимаю на слух основную информацию о себе и своей семье, о покупках, о месте проживания, о работе?

Я понимаю на слух общее содержание простых, чётко произнесённых и небольших по объёму сообщений и объявлений?

Я могу прочитать и понять короткие простые тексты?

Я могу найти конкретную информацию в простых текстах повседневного общения: в рекламах, проспектах, меню, расписаниях?

Я могу прочитать простые письма личного характера?

Я умею общаться в простых типичных ситуациях, требующих непосредственного обмена информацией?

Я умею поддержать предельно краткий разговор на бытовые темы?

Я могу, используя простые фразы и предложения, рассказать о своей семье и других людях, условиях жизни, учёбе, настоящей или прежней работе?

Я умею писать простые короткие записки и сообщения?

Я умею писать несложные письма личного характера (например, выразить кому-либо свою благодарность за что-либо)?

Исходя из целей и задач обучения, формулируются конечные требования к уровню знаний и умений по отдельным видам речевой деятельности и языковым аспектам на 1 курсе (1, 2 семестр).

Основной целью курса является достижение Порогового уровня самостоятельного владения иностранным языком В1 и закрепление на данном уровне. Курс направлен на практическое овладение навыками аудирования, понимание письменного текста, диалогической и монологической речи, а также продуктивное овладение грамматическим материалом в рамках изучаемых лексических тем.

Требования к итоговым умениям и навыкам на уровне В1:

Понимание	Аудиро- вание	Понимание основных положений чётко произнесённых высказываний в пределах литературной нормы на базе изученных тем. Понимание общего содержания адаптированных радио- и телепрограмм о текущих событиях, а также передач, связанных с личными или профессиональными интересами.	
	Чтение	Понимание текстов, построенных на частотном языковом материале повседневного и профессионального общения. Понимание описаний событий, чувств, намерений в письмах личного характера.	
	Диалог	Умение общаться в большинстве ситуаций, возникающих во время пребывания в стране изучаемого языка. Участие (без предварительной подготовки) в диалогах на базе изученных тем.	
Говорение	Монолог	Умение строить простые связные высказывания о личных впечатлениях, событиях, мечтах, надеждах и желаниях. Умение кратко обосновать и объяснить свои взгляды и намерения, рассказать историю или изложить сюжет книги или фильма и выразить к этому свое отношение.	
Письмо	Письмо	Умение писать простые связные тексты на изученные темы, письма личного характера.	

С целью формирования навыков аудирования на иностранном языке согласно приведённой выше шкале уровней для самооценки, опубликованной в официальной брошюре Совета Европы, рекомендуется выполнить следующие упражнения:

Прослушайте текст, постарайтесь понять его содержание, разделите на смысловые части и дайте заголовок к каждой части.

Прослушайте текст, составьте план.

Прослушайте начало текста, дайте свой вариант того, как могут развиваться события в тексте дальше и т. д.

Прослушайте предложение и определите значение нового слова по контексту (словообразовательным элементам, на основе знания одного из значений, по этимологии, звукоподражательным элементам).

Установите на слух тождество в парах слов.

Прослушайте предложения и постарайтесь понять их смысл, не обращая внимания на определения, выраженные незнакомыми словами.

Прослушайте омонимы в предложениях и определите их значения.

Прослушайте синонимы в предложениях и определите их значения.

Прослушайте исходные предложения и различные варианты их лексикограмматического перефразирования, определите выраженную в них мысль.

Прослушайте ряд предложений и обратите внимание на то, что они отличаются друг от друга только одним новым словом в одной и той же позиции. Установите смысл этих предложений.

В списке слов отметьте те, которые вы услышали в предложениях. Назовите их вслух.

В списке русских слов отметьте очерёдность воспринятых на слух иноязычных эквивалентов.

Прослушайте омонимы и найдите в списке соответствующие им слова на родном языке.

Прослушайте предложения на иностранном языке, укажите лексические ошибки, допущенные в процессе их перевода на русский язык. (Текст русских предложений прилагается).

Прослушайте предложения, произнесённые в быстром темпе, и запишите их. Затем проверьте правильность своих записей при более медленном чтении предложений диктором.

Прослушайте предложения, произнесённые диктором в быстром темпе, и переведите их на родной язык. При повторном (таком же быстром или более медленном) прослушивании исправьте ошибки в переводе.

Отметьте в списке синонимы или антонимы слов, которые вы услышали в произнесённых диктором предложениях.

С целью формирования навыков диалогической речи на иностранном языке рекомендуется выполнить следующие упражнения:

Подготовьте набор ключевых слов и словосочетаний, уместных в большинстве типичных ситуаций, которые могут быть при поездке в страну изучаемого языка.

Составьте на основе этого материала свои реплики разных типов (побуждения, реагирования) и организуйте их в микродиалоги, реализующие различные языковые намерения.

Составьте диалог по одной теме, но для разных ситуаций общения.

Составьте тематический диалог из микродиалогов с добавлением необходимых объединяющих реплик.

Подберите картинки/фотографии к интересующей вас ситуации общения и составьте к ним микродиалоги.

Составьте диалог по прочитанному тексту.

Подумайте, с какими сложностями вы можете столкнуться в различных ситуациях, которые могут быть при поездке в страну изучаемого языка, и составьте микродиалоги, позволяющие их решить.

С целью формирования навыков монологического высказывания на иностранном языке рекомендуется выполнить следующие упражнения:

Подготовьте или воспользуйтесь готовыми списками выражений отношения (нравиться, разочарование, предпочтение, волнения и т.п.), интереса.

Определите ряд событий в тексте или фильме, которые оказались для вас эмоционально значимыми. Выразите свое отношение к ним, используя соответствующие фразы-клише.

Практикуйте использование этих фраз, до тех пор, пока подбор соответствующего слова для выражения ваших эмоций не перестанет вызывать затруднения.

Подготовьте список союзов и выражений, объясняющих вашу точку зрения.

Подготовьте простые предложения, выражающие ваш интерес к некоторому явлению и простые предложения, объясняющие этот интерес. Объедините их в одно сложное предложение.

С целью формирования навыков чтения на иностранном языке рекомендуется выполнить следующие упражнения:

Прочтите текст, разделите его на смысловые части, подберите названия к каждой из них.

Повторно прочтите текст и перечислите вопросы, освещаемые в нем.

Соедините простые предложения с помощью подчинительных союзов.

Определите и изучите новые грамматические явления в тексте.

Прочтите предложения и найдите в них многозначные слова. Укажите новые для вас значения этих слов.

Переведите авторскую прямую речь в косвенную.

Составьте предложения из самостоятельно выбранных ключевых фраз.

С целью формирования навыков письма на иностранном языке рекомендуется выполнить следующие упражнения:

Подготовьте набор ключевых слов и словосочетаний, уместных в большинстве типичных писем личного характера.

Подготовьте список союзов и выражений, объясняющих вашу точку зрения.

Подготовьте простые предложения, выражающие ваш интерес к некоторому явлению и простые предложения, объясняющие этот интерес. Объедините их в одно сложное предложение.

Составьте план простого письма-благодарности, запроса.

Подберите фразы для формального и неформального начала и завершения письма.

#### 1.2. МЕТОДИЧЕСКИЕ РЕКОМЕНДАЦИИ ПО ОРГАНИЗАЦИИ САМОСТОЯТЕЛЬНОЙ РАБОТЫ СТУДЕНТОВ

Студент в процессе обучения должен не только освоить учебную программу, но и приобрести навыки самостоятельной работы, которая способствует развитию ответственности и организованности, творческого подхода к решению проблем учебного и профессионального уровня, поскольку студент должен уметь планировать и выполнять свою работу.

Самостоятельная работа студентов является одной из основных форм аудиторной и внеаудиторной работы при реализации учебных планов и программ. Самостоятельная работа определяется как индивидуальная или коллективная учебная деятельность, осуществляемая без непосредственного участия педагога, но по его заданиям и под его контролем.

При определении содержания самостоятельной работы студентов учитывается уровень самостоятельности абитуриентов и требования к уровню самостоятельности выпускников для того, чтобы за период обучения искомый

уровень был достигнут.

Для организации самостоятельной работы необходимы следующие условия:

- готовность студентов к самостоятельному труду;
- наличие и доступность необходимого учебно-методического и справочного материала;
  - консультационная помощь.

Формы самостоятельной работы студентов определяются при разработке рабочих программ учебных дисциплин содержанием учебной дисциплины, учитывая степень подготовленности студентов.

Видами заданий для внеаудиторной самостоятельной работы являются:

Для овладения знаниями:

– чтение текста (учебника, дополнительной литературы), составление плана текста, графическое изображение структуры текста, конспектирование текста, выписки из текста, работа со словарями и справочниками, ознакомление с нормативными документами, учебно-исследовательская работа, использование аудио- и видеозаписей, компьютерной техники и Интернета и др.

Для закрепления и систематизации знаний:

– работа с конспектом лекции, обработка текста, повторная работа над учебным материалом (учебника, дополнительной литературы, аудио и видеозаписей, составление плана, составление таблиц для систематизации учебною материала, ответ на контрольные вопросы, заполнение рабочей тетради, аналитическая обработка текста (аннотирование, рецензирование, реферирование, конспект-анализ и др), подготовка мультимедиа сообщений/докладов к выступлению на семинаре (конференции), подготовка реферата, составление библиографии, тематических кроссвордов, тестирование и др.

Для формирования навыков и развития умений:

– решение задач и упражнений по образцу, решение вариативных задач, решение ситуационных (профессиональных) задач, подготовка к деловым играм, проектирование и моделирование разных видов и компонентов профессиональной деятельности, рефлексивный анализ профессиональных умений с использованием аудио- и видеотехники и др.

Таким образом, самостоятельная работа всегда завершается какими-либо результатами. Это выполненные задания, упражнения, решённые задачи, написанные сочинения, заполненные таблицы, построенные графики, подготовленные ответы на вопросы.

Цели и задачи.

Целью самостоятельной работы студентов является овладение фундаментальными знаниями, профессиональными умениями и навыками деятельности по профилю, опытом творческой, исследовательской деятельности. Данный учебно-методический материал ориентирован на достижение главной цели: повышение результативности самостоятельной работы студентов, развитие способности к самостоятельному получению знаний, освоению коммуникативных компетенций по учебной дисциплине «Иностранный язык».

В ходе выполнения самостоятельной работы студент научится активно, целенаправленно приобретать новые знания и развивать коммуникативные умения без прямого участия в этом процессе преподавателей; самостоятельно анализировать современные учебно-методические материалы; закреплять

пройденный материал посредством анализа, сравнения, обсуждения и описания реалий согласно тематике.

Указанная цель требует реализации ряда задач, таких как:

приобретение конкретных знаний, формирование навыков и развитие речевых умений по иностранному языку, в соответствии с темами, заявленными в учебной программе дисциплины;

систематизация и закрепление полученных теоретических знаний и практических умений обучающихся;

развитие познавательных способностей и активности студентов: творческой инициативы, самостоятельности, ответственности и организованности;

формирование самостоятельности мышления, способностей к саморазвитию, самосовершенствование и самореализация;

развитие исследовательских умений;

реализация универсальных учебных действий с использованием информационно-коммуникационных технологий.

Информация, полученная в результате самостоятельного изучения обозначенного материала, будет необходима для написания реферата, сочинения, подготовки презентации, более продуктивной работы на практических занятиях, а также успешного прохождения всех этапов контроля знаний. Помимо анализа библиографического списка литературы, поощряется самостоятельное нахождение и изучение дополнительной литературы и электронных источников.

При этом целями и задачами самостоятельной аудиторной работы по дисциплине «Иностранный язык» являются:

методическая помощь студентам при изучении дисциплины «Иностранный язык» по темам, выносимым на самостоятельное изучение;

активизация употребления профессиональной лексики в речи студентов, связанной с конкретными специальностями;

обучение логичному и последовательному изложению своих мыслей в соответствии с предложенной ситуацией, максимально приближенной к реальной жизни, и в пределах освоенного лексико-грамматического материала;

применение сформированных навыков при работе с аутентичными материалами;

развитие творческих способностей студентов, активизация мыслительной деятельности, повышение положительной мотивации к изучению иностранного языка;

отработка навыков работы со специальными тематическими словарями, с научными справочными пособиями, а также навыков реферирования;

оказание методической помощи при написании рефератов, сочинений.

Цели и задачи внеаудиторной самостоятельной работы студентов:

закрепление, углубление, расширение и систематизация знаний, полученных во время занятий;

самостоятельность овладения новым учебным материалом;

формирование навыков самостоятельного умственного труда;

овладение различными формами самоконтроля;

развитие самостоятельности мышления;

развитие коммуникативных умений в сфере профессионального общения; воспитание способности к самоорганизации, творчеству.

Самостоятельная работа может осуществляться индивидуально или

группами студентов в зависимости от цели, объёма, конкретной тематики самостоятельной работы, уровня сложности, степени развития умений студентов.

Контроль результатов внеаудиторной самостоятельной работы студентов может осуществляться в пределах времени, отведённого на обязательные учебные занятия по дисциплине и внеаудиторную самостоятельную работу студентов по дисциплине. Используется устная, письменная и смешанная формы контроля.

По дисциплине «Иностранный язык» практикуются следующие виды и формы самостоятельной работы студентов:

подготовка к практическим занятиям;

подготовка к контрольным работам, зачётам и экзаменам;

отработка изучаемого материала по печатным и электронным источникам;

Выполнение контрольных, самостоятельных работ;

тестирование в учебных компьютерных классах по материалам, разработанным преподавателем;

индивидуальные исследовательские задания (подготовка кратких сообщений, докладов, рефератов и др.);

подготовка к участию в научно-практических конференциях;

подготовка и оформление мультимедийных презентаций в соответствии с учебными разделами и темами, а также слайдового оформления и видеосопровождения докладов;

написание сочинений;

самостоятельное составление заданий (кроссвордов, викторин, контрольных упражнений) по изучаемой теме;

работа над выполнением наглядных пособий (схем, таблиц, коллажей и др.); проектная работа (подготовка деловой игры; портфолио).

Рекомендации по выполнению самостоятельной работы:

Изучение теоретического материала.

Изучение тематических текстов на иностранном языке, лексических и грамматических комментариев к ним, а также указанной в библиографии литературы и интернет-ресурсов с целью расширения знаний по той или иной теме необходимо осуществлять с учётом следующих пунктов:

прежде чем приступить к работе, требуется чётко определить цели задания, что поможет осуществить самоконтроль в конце работы;

ход работы проводить «пошагово» и не приступать к следующему пункту, не пройдя предыдущий;

при работе с литературными источниками выделять главное, обращая особое внимание на классический иностранный язык;

- в конце работы проверить достигнута ли цель и сколько времени потребовалось для её достижения.
- В зависимости от цели просмотрового чтения и степени полноты извлечения информации выделяют четыре подвида просмотрового чтения:
- 1. Конспективное для выделения основных мыслей. Оно заключается в восприятии только наиболее значимых смысловых единиц текста, составляющих логико-фактологическую цепочку.
- 2. Реферативное для выделения основных мыслей. При этом читающего интересует только самое основное в содержании материала, все подробности

опускаются как несущественные для понимания главного.

- 3. Обзорное для определения существа сообщаемого. Оно направлено на выделение главной мысли текста, причём задачи сводятся в основном к ее обнаружению на основе структурно-смысловой организации текста. Понимание главной мысли, выраженной имплицитно, в данном случае практически невозможно. Интерпретация прочитанного ограничивается вынесением самой общей оценки содержанию и определением соответствия текста интересам студентов.
- 4. Ориентировочное для установления наличия в тексте информации, представляющей для читающего интерес или относящееся к определенной проблеме. Основная задача читающего установить, относится ли данный материал к интересующей его теме.

Грамматический анализ непонятных предложений текста на иностранном языке. Бегло просмотрите текст и постарайтесь понять, о чем идёт речь.

При вторичном прочтении определите тип непонятного предложения и функции всех его составляющих по внешним признакам.

При наличии сложносочинённого или сложноподчинённого предложения разделяйте его по формальным признакам на самостоятельные и придаточные, выделяйте инфинитивные, причастные и деепричастные обороты.

Если в предложении есть служебные слова, используйте их для членения предложения на смысловые группы.

В каждом отдельном предложении сначала находите сказуемое или группу сказуемого, затем подлежащее или группу подлежащего. Если значение этих слов неизвестно, обращайтесь к словарю.

Глагол-сказуемое обычно стоит на втором месте. Сказуемое можно найти по:

- по личным местоимениям;
- по вспомогательным и модальным глаголам в личной форме;
- по неправильным глаголам;
- по суффиксам.

Помните, что существительные употребляются в функции подлежащих только без предлогов.

Найдя подлежащее и сказуемое, проверьте, согласуются ли они в лице и числе. Поняв значение главных членов, выявляйте последовательно второстепенные члены предложения, сначала в группе сказуемого, а затем в группе подлежащего.

Если предложение длинное, определите слова и группы слов, которые можно временно опустить для выяснения основного содержания предложения. Не ищите сразу в словаре все незнакомые слова, а заменяйте их вначале неопределёнными местоимениями и наречиями (кто-то, какой-то, как-то, где-то и др.).

Внимательно присмотритесь к словам, имеющим знакомые вам корни, суффиксы, приставки. Попытайтесь установить значение этих слов. При этом обратите внимание на то, какой частью речи являются такие слова, а затем подбирайте соответствующий русский эквивалент.

Слова, оставшиеся непонятными, ищите в словаре, соотнося их значение с контекстом.

Подготовка доклада.

Требование к студентам по подготовке и презентации доклада.

Доклад — это сообщение с целью обобщить знания по заданной теме, систематизировать материал, проиллюстрировать примерами, сформировать навыки самостоятельной работы с научной литературой и прессой, познавательный интерес к научному познанию.

Студент в ходе презентации доклада отрабатывает умение самостоятельно обобщить материал и сделать выводы в заключении, свободно ориентироваться в материале и отвечать на дополнительные вопросы слушателей. Работа студента над докладом-презентацией включает отработку у него навыков ораторского искусства и развитие умений организовывать и проводить диспут.

Тема доклада должна быть согласована с преподавателем и соответствовать теме занятия. Докладом также может стать презентация реферата студента, соответствующая теме занятия. Материалы при его подготовке должны соответствовать научно-методическим требованиям ВУЗа и быть указаны в докладе. Иллюстрации должны быть достаточными, но не чрезмерными.

Студент обязан подготовить сообщение и выступить с докладом в строго отведённое преподавателем время, и в указанный им срок. Необходимо соблюдать регламент, оговоренный при получении задания.

Инструкция докладчикам и содокладчикам.

Докладчики и содокладчики – основные действующие лица. Они во многом определяют содержание, стиль и динамичность данного занятия. Действующие лица должны:

уметь сообщать новую информацию;

Использовать технические средства;

знать и хорошо ориентироваться в теме всей презентации (семинара);

уметь дискутировать и быстро отвечать на вопросы;

четко выполнять установленный регламент: докладчик — от 10 мин.; содокладчик — 5 мин.; дискуссия — 10 мин;

иметь представление о композиционной структуре доклада.

Необходимо помнить, что выступление состоит из трех частей: вступление, основная часть и заключение.

Рекомендуется составить тезисы для беседы или устного сообщения в заданной ситуации общения. Эффективно также составить список вопросов для обсуждения с воображаемым или реальным собеседником.

Написание реферата.

Тема реферата предлагается преподавателем в соответствии с изучаемым материалом.

Объем текстовой части реферата (не считая титульного листа, содержания, списка литературы) должен составлять 5-8 листов формата A4 (шрифт: TimesNewRoman, кегль 14, междустрочный интервал полуторный, поля стандартные: верхнее -2 см, нижнее -2 см, левое -3 см, правое -1,5 см).

Обязательные части реферата: титульный лист, текстовая часть и список литературы (не менее 4 наименований). Вступление, основная часть и заключение также являются необходимыми блоками реферата.

Написание сочинений.

Тема сочинения предлагается преподавателем в соответствии с изучаемым разделом; также допускается написание сочинения по теме, сформулированной самостоятельно, но в таком случае необходимо её согласование с преподавателем. Объем сочинения должен составлять 240–280 слов. Сочинение сдаётся в указанный в графике срок.

Требования к оформлению.

Сочинение сдаётся на листе бумаги или в специально заведённой для этой цели тонкой тетради (не толще 48 листов), в рукописном или распечатанном виде. Сочинение оформляется произвольно; обязательно только указание темы сочинения.

Инструкция по подготовке сочинения.

Разделите текст на смысловые абзацы в соответствии с предложенным в задании планом.

В первом абзаце сформулируйте проблему, которую вы будете обсуждать, однако не повторяйте тему сочинения слово в слово. Представьте, что ваш читатель не знает, о чем пойдёт речь, и попытайтесь объяснить ему проблему другими словами.

Выделите положительные и отрицательные стороны проблемы, подумайте о разумных аргументах, в поддержку обеих точек зрения. Помните, что вы должны выразить не только свою точку зрения, но и противоположную. Также не забудьте объяснить, почему вы не согласны с другой точкой зрения.

Старайтесь соблюдать баланс между абзацами. Используйте слова-связки, чтобы помочь читателю проследить за логикой ваших рассуждений.

В последнем абзаце сделайте обобщающий вывод по данной проблеме. Вы можете также окончательно сформулировать своё мнение или предложить пути решения данной проблемы.

Написание письма.

В процессе профессионального общения написание писем является одной из наиболее часто встречающихся задач. Темы для деловых писем предлагаются допускается преподавателем, также написание ПО теме, письма сформулированной самостоятельно, НО В таком случае необходимо согласование с преподавателем.

Перед написанием письма проводится подготовительная работа. Студент анализирует тексты писем, определяет характер каждого письма (личное, семейное, деловое, проблемное; письмо с выражением благодарности; поздравление, приглашение и т.д).

На подготовительном этапе просматриваются приведённые речевые формулы, используемые в письме, и отмечаются различные способы выражения благодарности и признательности. Кроме того, составляются различные тематические письма для заданных ситуаций письменного общения.

Непосредственно при написании письма используйте следующий алгоритм действий:

Определите, кому могут быть адресованы названные формы письменного обращения.

Определите характер письма по его структуре (описание, сообщение, повествование, уведомление, выражение благодарности за что-либо, приглашение).

Составьте письмо по предложенному плану, ориентируясь на конкретный тип адресата, коммуникативную задачу и ситуацию написания письма.

Подготовка презентации.

Демонстрационная презентация (длительностью от 10 до 20 мин.) выполняется в программах MicrosoftPowerPoint, Prezi и других.

Возможно (но необязательно) использование дополнительных фото-, видеоили аудиоматериалов. Выполнение презентации осуществляется в устной форме (сдача текстовой части доклада не требуется).

Виды презентаций и их структура.

Можно выделить 3 вида презентаций:

- 1. информационная презентация;
- 2. презентация-идея;
- 3. презентация-ревью.

Для определения вида будущей презентации сформулируйте цель своего выступления, ответив себе на вопросы: зачем я выступаю, что я хочу получить в результате, что должны продумать или сделать слушатели после моей речи? Это главный вопрос. Правильный ответ на него -50% успешной презентации.

Для информационной презентации достаточно того, что аудитория просто получит новые данные. Информационная презентация самая простая по своей сути, и требования к ней минимальны: она должна содержать в себе вступление, основную часть и завершение.

Во вступлении должно быть приветствие, тема и, возможно, цель выступления, имя выступающего, название организации, которую он представляет. Часто визуальные компоненты сопровождают или даже заменяют эту часть выступления.

В основной части информационной презентации главное — это соблюдение логики речи, а, следовательно, структурирование доклада, в частности разделение его на части.

Завершение также может быть предельно кратким: резюме вышесказанного и благодарность за внимание.

Цель презентации-идеи: изменить отношение слушателей и убедить их предпринять конкретные действия, связанные с темой. Алгоритм формирования убедительной презентации – « $4\Pi$ ». Алгоритм включает в себя 4 блока:

- 1. Положение. В первой части докладчик рассказывает о ситуации, связанной с его предложением. Ситуация должна быть близка и понятна аудитории. Этот раздел должен быть относительно коротким 5-10% всего выступления.
- 2. Проблема. Этот отрезок презентации должен показать проблематику. Очень важно, чтобы поднятые оратором проблемы действительно были важны для слушателей. Задача презентации только актуализировать потребности слушателей и вывести на первый план среди множества других наших ежедневных потребностей.
  - 3. Перспектива. В этом разделе докладчику нужно показать, как усугубится

описанная проблема, если не принять меры прямо сейчас.

4. Предложение. Следует предложить свой продукт или идею. При этом важно наглядно показать, как именно предлагаемая идея поможет выйти из сложившейся ситуации, ответить на вопрос, чем этот способ решения лучше, чем другие, привести аргументы и доказательства — то есть сделать свою презентацию убедительной.

Заканчиваться презентация-идея должна призывом к конкретным действиям, которые можно легко реализовать. Выступление будет особенно убедительным, если сделать презентацию с использованием качественных слайдов. Для убеждения стоит использовать яркие иллюстрации и графики, подтверждающие слова выступающего, так как 80% информации мы получаем через зрительный канал.

Презентация-ревью — это отчёт о проделанной работе. Фактически, целью таких презентаций является убеждение слушателей в том, что Вы грамотный специалист в своей области, максимально качественно выполнивший свой объем работы и достойны высокой оценки.

Составление портфолио.

Целесообразно создание и использование портфолио в качестве проекта для самостоятельной работы.

По способу обработки и презентации информации выделяют портфолио в бумажном варианте и электронный вариант портфолио.

Портфолио в бумажном варианте, т.е. портфолио документов — это портфель сертифицированных (документированных) индивидуальных образовательных достижений, личностного развития, карьерного продвижения как рецензии, отзывы, резюме, эссе, рекомендательные письма и прочее).

Электронный вариант портфолио, т.е. портфолио-коллектор, портфолио работ — это собрание различных творческих и проектных работ студента, а также описание основных форм и направлений его учебной и творческой активности: участие в научных конференциях, конкурсах, прохождение различного рода практик, спортивных и художественных достижений и др.

Структура портфолио.

Часть 1. «Введение».

- 1.1. Фото.
- 1.2. Резюме.
- 1.3. Цели и задачи портфолио.
- 1.4. О структуре портфолио.
- 1.5. Специфические характеристики портфолио.

Часть 2. «Мои достижения».

2.1. «Официальные документы»:

документы об окончании школы;

сертификаты официально признанных международных, региональных и городских олимпиад, конкурсов, фестивалей, иных мероприятий;

документы об участии в грантах, окончании музыкальной, художественной, спортивной или иной школы;

сертификаты о прохождении практик, стажировок, тестирования, участии в проектах и программах;

журнальные, газетные и фото документы и иные документы,

свидетельствующие об успехах;

список достижений, который, по тем или иным причинам (забыл, потерял, украли) не может быть задокументирован.

2.2. «Жизненный опыт»:

автобиография;

эссе «Взгляд в прошлое»;

анализ важнейших событий и эпизодов жизни, их оценка, оценка, вес в сегодняшней жизни;

основные этапы становления личности, факторы, события, люди, повлиявшие на это;

газетные, фото, видео и иные кинодокументы, свидетельства очевидцев; характеристики, отзывы, оценки известных (и не только) лиц о вас;

отзывы с тех мест работы, где вы работали и т.п.).

2.3. «Обучение в вузе, предпрофессиональная и профессиональная подготовка»:

ваши оценки на всех этапах обучения в вузе, комментарии к ним;

любимые предметы, преподаватели, мотивы обучения;

основные периоды и этапы учения;

изменения взглядов на свою будущую профессию, вуз;

список курсовых и дипломных работ;

отзывы преподавателей и научных руководителей, руководителей учебных, преддипломных и дипломных практик;

список мест прохождения практик и выполненных работ.

2.4. «Научная деятельность»:

список научных работ;

научная переписка;

аннотации к своим работам;

рецензии чужих научных трудов, монографий, учебников и учебных пособий;

отзывы на ваши работы;

эссе «О науке» и т.п.

2.5. «Курсы по выбору и творческие работы»:

список дополнительны курсов, оценки, сертификаты, комментарии, приобретённые компетенции;

список или структурированное представление в том или ином виде своих творческих работ, отзывы на них, в том числе в СМИ и т.п.

Часть 3. «Я в мире людей».

3.1. «Участие в общественной жизни»:

характер вашей общественной активности;

занимаемые посты;

проекты и программы, в которых участвовали, их результативность.

3.2. «Друзья», «Любимые люди»:

ваши близкие друзья в вузе и вне его, сфера их занятий, привлекательные черты характера, образ жизни, разделяемые ценности и т.п.;

родные и близкие люди, их личные качества, интересы, сфера занятий, привлекательные черты.

3.3. «Мои кумиры»:

Люди (актёры, учёные, писатели, спортсмены и т.п.), являющиеся для вас, в

определённом смысле, эталонами жизни и поведения, их портреты.

3.4. «Хобби, интересы»:

сфера ваших свободных интересов, занятий, хобби, их примеры, иллюстрации;

значение в жизни вообще и в профессиональной жизни, в частности.

Часть 4. «Взгляд на себя и в будущее».

4.1. «Я»:

взгляд на своё «Я», сильные и слабые стороны, мотивацию, интеллект, черты характера, образ жизни.

4.2. «Мои ценности и идеалы»:

то, что вы цените, считаете важным, стремитесь, уважаете.

4.3. «Мир вокруг меня»:

ваша оценка событий происходящих в мире и вокруг вас, тенденций, открывающихся возможностей, возникающих трудностей и опасностей.

4.4. «Мои жизненные планы:

ваше представление о собственной миссии, жизненных и профессиональных целях, стратегии, планах, способах, средствах и времени их достижения и т.п.

#### 4.5. «Мой девиз»:

ваш девиз, кредо на новом этапе жизни.

Часть 5. «Заключение для...».

- 5.1. Важнейшие аспекты личности;
- 5.2. Наиболее важные компетенции;
- 5.3. Важнейшие аспекты опыта;
- 5.4. Направления взаимодействия с работодателем и/или использования.

Материалы для оценивания портфолио делят на 2 части и заносят в таблицу:

Формальная часть	Неформальная часть
1. Средние оценки по общим дисциплинам.	1. Олимпиады.
2. Средние оценки по профессиональным	2. Профессиональные конкурсы.
дисциплинам.	3. Научные публикации.
3. Средние оценки по специальным	4. Методические разработки и
дисциплинам.	публикации (разработка учебного
4. Курсовые работы.	курса, деловой игры, тренинга,
5. Дипломная работа.	конференции, сайта по
6. Практики.	профессиональной теме).
7. Иностранный язык.	5. Участие в научной конференции.
8. Второй иностранный язык.	6. Участие в общественных проектах.
9. Третий иностранный язык.	7. Участие в профессиональных
10. Любые сертификаты об обучении,	проектах.
связанные с профессией.	8. Участие в спортивных
11. Обучение за рубежом по направлению	мероприятиях.
университета.	9. Иные сертификаты, документы.
12. Отзывы преподавателей, руководителей	10. Отзывы, характеристики от
учебных практик.	руководителей предприятий,
	организаций.

Самостоятельная подготовка заданий.

При необходимости самостоятельно составить задание по изучаемой теме следует в первую очередь определиться с типом задания. Это может быть кроссворд, викторина, текст с пробелами, сопоставление, ролевая игра и другие виды заданий, включая контрольные тесты и упражнения. По желанию студентов это может быть даже проект деловой игры.

Одним из интересных и творческих вариантов заданий является викторина.

Викторина — это вид игры, смысл которой заключается в том, чтобы угадывать правильные ответы на устные или письменные вопросы из разных областей знаний. Есть большое количество разных видов викторин. Они могут отличаться друг от друга условиями и правилами, тематикой, типами и сложностью вопросов.

Правила выполнения викторины должны быть просты. Сложные правила приходится долго разъяснять, и в результате теряется интерес. Но и в том случае, когда человек включится в викторину, он будет путаться, сбиваться и тем самым нарушать темп проведения викторины или разрушать её.

Викторина должна охватывать всех. Не должно быть таких ситуаций, когда одни участники вовлечены в процесс викторины, а другие оказываются в положении пассивных наблюдателей.

Еще одним элементом викторин являются награды победителям. Здесь есть несколько психологических моментов, которые следует учитывать:

приз должен соответствовать уровню и сложности викторины;

вариант вручения призов всем участникам игры возможен, но при этом основной приз должен оставаться основным, а остальные носить характер утешительных и отличаться от главного;

приз не обязательно должен быть материальным. Он может быть чисто символическим, в виде венка, торжественно возлагаемого на голову победителя, шуточной медали с соответствующей надписью и т.п.;

само представление приза как цели, к достижению которой будут стремиться соревнующиеся, может нести в себе элемент викторины, если его представить в скрытом виде, как «тёмный приз».

#### 2. ПРАКТИЧЕСКИЙ РАЗДЕЛ

## 2.1. МАТЕРИАЛЫ ДЛЯ ПРАКТИЧЕСКИХ ЗАНЯТИЙ ПО ДИСЦИПЛИНЕ (АНГЛИЙСКИЙ ЯЗЫК)

#### 2.1.1. A NEW PERIOD IN MY LIFE

#### **STUDENTS' LIFE**

#### 1. Read and translate the text.

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 theuniversity! 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? 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 amixture 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 "BrSTUStars" 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 champion- ships 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!

### 2. 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.

# 3. 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.

4. Match the words with similar meanings.

hostel term	
-------------	--

semester	to finish
to introduce	to like
to leave	to present
to prefer	dormitory

5. Match the words with opposite meanings.

to pass	to fail
to like	to hate
easy	difficult
lazy	hard-working
strong	weak

#### 6. Match the English idioms in the left column with their Russian equivalents.

to go into details	начать с азов
to drum something into somebody's head	как дважды два – четыре
a brain twister	куриные мозги
two and two make four	вдаваться в подробности
a stumbling block	головоломка
the key word	легко даваться
the brain of a pigeon	ключевое слово
to come easy	камень преткновения
to start from scratch	вдолбить что-либо в голову

#### 7. Speak in class what you feel when:

you get a bad mark; you fall behind the group; you fail in an examination; you read up for an examination late at night; you miss classes; you come late to classes; you keep up with the rest of the group; you catch up with the rest; you spend sleeplessnights over a load of books; you look up every word in your dictionary when reading an English book.

#### **HOW TO DEAL WITH EXAM STRESS**

## 1. Read the text and share your experience of dealing with exam stress with your groupmates.

How to Deal with Exam Stress

Exam season can bring on levels of stress and burnout that can hinder your studies. Here are some handy tips on how to manage your anxiety Exam stress affects most students in varying ways. It is important to manage this stress and find little ways of helping to eliminate the risk of burnout.

For some students, exams can be a breeze; revision is second nature to them and they could ace an exam with their eyes closed. But for others, sweaty palms and heart palpitations are just a part of the territory, and it seems that nothing is more impossible than sitting down and revising. Here are some handy tips that can help to dissipate stress and make sure you can get through exam season.

1. Take regular breaks and schedule in fun things to look forward to Even the most intense exam timetables will allow a little time for a study break.

This can include 20-minute breaks during your revision day, and longer activities that you can look forward to. Go out for dinner with friends, go to the cinema, attend a

gig, anything that you like doing in your spare time that will take your mind off exams. Spending a little time away from the books will leave youfeeling more refreshed and relaxed the next time you revise.

#### 2. Exercise and get outdoors

Easily one of the most frustrating things about exam season is that it seems to occur just as the weather brightens up. Use this to your advantage and go out for a walk, or a run, or head to the gym or swimming pool. As well as keeping you healthy, exercise is known to boost your mood and can help to make you more productive while revising.

#### 3. Don't (always) listen to others

As the old saying goes: "comparison is the thief of joy". While it is helpful to discuss topics with fellow students and often to revise together, try not to compare other peoples' revision to your own. Chances are you're doing just fine, and listening to other people talk about what they've learnt will only stress you out and may make you feel like you aren't progressing as well as them. Plus, if they themselves are stressed this can rub off on to you and other people's stress is not what you need right now.

#### 4. Speak to someone

If the stress gets to a point where it is overwhelming, and is affecting your day-to-day life, try and speak to someone about it. Your university or school should have a service where you can speak to people about your concerns, and will be able to offer more advice on how to manage it. If that seems like too big a step, open up to a family member or a friend about the pressure you feel. You'll be amazed to know that you aren't alone in feeling like this.

10 quick ways to help eliminate exam stress.

Watch a film, a TV show or listen to a podcast or comedian that makes you laugh. Drink some herbal tea or a hot chocolate. It's a well known fact that hot drinks are known to soothe the soul (avoid too much caffeine though!).

A shower or a bath can help to relieve stress.

Cook or bake something. Just the thought of having something delicious to eat can bring you joy. As a bonus side note, try and cook something healthy too. You can't feed your mind well, if you don't feed your body well.

Get some sleep. The virtues of a good night's sleep during exam season should not be underestimated.

Keep things in perspective. Yes, exams are important. But you are so much more than your exam results.

Avoid other stressed people. You know the ones I mean. The ones with cue cards outside of the exam hall, frantically trying to remember key dates and equations.

They will do nothing for your stress levels.

Avoid the exam "post-mortem". You don't need to know how other people fared in the exam. You've done your best, you can't go back and change your answers so the second you step out of the exam hall, focus on your next exam.

Be flexible. While having a revision time table is one of the best tools in your arsenal for exam success, don't be too hard on yourself if you don't stick to it. If you accidentally oversleep, don't write the day off.

Write down everything you feel like you need to do and try and tick one thing off. Just the act of feeling like you are in control of your revision can help.

#### 2. Translate into English.

- 1. Она поступила в университет прошлым летом и закончит его только через четыре года.
  - 2. Лучше не пропускать занятия, а то можно быстро отстать от группы.
  - 3. Мой любимый предмет, конечно же, английский.
  - 4. Староста нашей группы получает стипендию.
  - 5. Больше всего я боюсь провалить экзамен по математике.
- 6.В штатепреподавателейу нас три профессора, четыре доцента, пять старших преподавателей и семь ассистентов.
  - 7. В эту сессию будет пять зачётов и четыре экзамена.

## 3. Read and translate the story. Answer and discuss in class the questions below. Continue the story.

It took a couple of weeks for classes to get settled, and then we got down to the nitty-gritty. As homework began pouring in, and tests loomed on the horizon, I realized that my study skills were very poor and that it was going to be a challenge in itself to teach myself to study. I experimented with several tactics, trying to find out what would work for me. I started out in the bedroom with the door closed, but it seemed the phone was always ringing. I managed to get my work done, but I was not pleased with this frustrating situation. Later I tried going outside andpreparing somewhere in the yard. I ended up chatting with a neighbour, petting her dog. Clearly, something had to be changed. As my workload increased, so did my frustration.

Quite by accident, however, I found the solution to my problem...

#### Find the English equivalents to the Russian words and phases.

На это ушла пара недель, прийти в норму, засесть за что-либо, повседневная работа, наваливаться, маячить, слабые навыки, вызов, экспериментировать с чемлибо, обнаружить, начинать (разг.), удаваться, оканчиваться, удручающая ситуация, выходить из дома, болтать, работа накапливалась, разочарование, совершенно случайно, решение проблемы.

#### Answer the questions and express your opinion on the following.

- 1. What advice would you give to a friend of yours if he or she had to deal with the problem of distraction?
- 2. What tactics do you personally choose to get yourself organised and sit down to work?
- 3. Discuss in class the problem of getting oneself organised and concentrated when doing one's homework.
- 6. BrSTU offers a choice of 14 sport societies for the students to enjoy exercise in their free time. Which of them are you going to visit and why? Write a short essay (10-12 sentences).

Sport Societies and Clubs:

- arm wrestling
- basketball
- table tennis
- indoor soccer
- handball
- volleyball

- judo
- karate
- aerobics
- kick-boxing
- tourism
- chess
- swimming
- Citadel Alpinist Club.
- 7. The Students' Club is the centre where our students can spend their time to the best advantage and make new acquaintances.? What its line is the most interesting for you? Write a short essay (10-12 sentences).

BrSTU amateur societies and groups

Vocal line:

- pop-group
- · vocal school
- vocal group «Kaliada»
- vocal group «Ramonki»
- vocal group «Vivat»
- vocal group «Krasuni»
- folk music group

Dance line:

- sport dance group «Tim-Wei»
- folk dance group
- school of variety show dancing
- club of historical dance «The Medieval meadow»

Instrumental music line:

- group of violinists
- instrumental music group

Clubs

- Theatre group "The Word"
- "What? Where? When?" Club (brain ring games)
- KVN club (a comedy club)
- Journalistic club "The Feather."

#### **COLLEDGE LIFE**

1. Read the text, consult a dictionary to find the meaning of the words in bold type, learn them by heart.

The merry-go-round of **college life** is something that one never forgets. It's a fascinating, fantastic, fabulous experience, irrespective of the fact whether one is a **full-time** or a **part-time student**.

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: the rector, vice-rectors, deans, subdeans, heads of departments and senior lecturers. Some of them must be professors, some – associate or assistant professors, lecturers and tutors, but, of course, all of them have

high academic degrees.

The monitors hand out student membership cards, student record books and library cards — one feels like a real person. First celebrations and then days of hard work. So many classes, so many new subjects to put on the timetable! The curriculum seems to be developed especially for geniuses. Lectures, seminars and tutorials. Home preparations; a real avalanche of homeworks.

If one can not **cope with the work load of college** he or she immediately starts **lagging behind**. It is easier to **keep pace** with the programme than to **catch up with it** later. Everyone tries hard to be, or at least to look, **diligent**. First **tests and examination sessions**. The first **successes** and first **failures**: "I have passed!" or "He has not given me a pass!"Tears and smiles. And a long-awaited vacation.

The merry-go-round runs faster. **Assignments**, written reproductions, compositions, synopses, papers. Translations checked up and marked."Professor, I have never played truant, I had a good excusefor missing classes". Works handed in and handed out. Reading up for exams. "No, professor, I have never cheated — no cribs. I just crammed".

Junior students become senior. Still all of them are one family – undergraduates. Students' parties in the students' club. Meeting people and parting with people. You know, Nora is going to be expelled and Dora is going to graduate with honours. Yearly essays, graduation dissertations, finals...

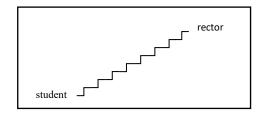
What? A **specialist's certificate?** You mean, I've got a **degree in Economics?** I am happy! It is over! It is over... Is it over? Oh, no...

A postgraduate course, a thesis, an oral, and a degree in Economics. The first of September. Where are the students of the faculty of economics? Is it the economics department? Oh, how nice...

#### 2. Do the following tasks.

- 1. Say a few words about your university: say what it is called, speak about its faculties and their specializations.
  - 2. Would you compare college life with a merry-go-round or with something else?
  - 3. What do you think of the first months at the university?
- 4. 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.



#### A NEW PERIOD IN MY LIFE

#### 1. Pronounce the words correctly and learn their meaning.

- 1. housing [hauziŋ] –жильё
- 2. opportunity [эрә'tju:nıtı] возможность
- 3. dormitory, students hostel ['domitri] [hostl] –студенческое общежитие

- 4. to rent a flat (an apartment) [ə'pa:tmənt] снимать квартиру
- 5. usually ['ju:Зuəlɪ] –обычно
- 6. rather ['ra:ðə] довольно
- 7. enough [ın∧f] –достаточно
- 8. completely [kɔm'pli:tlɪ] полностью, совершенно
- 9. toserve [sə:v] обслуживать
- 10. while [wail] –пока, в то время как
- 11. to prefer [pri'fə:] –предпочитать
- 12. to miss [mis] –пропускать
- 13. successfully [sək'sesfuli] –успешно
- 14. canteen [kæ:n'ti:n] –столовая
- 15. back [bæk] обратно
- 16. break [breik] –перерыв
- 17. report [rɪ'pɔ:t] –доклад
- 18. tired [taiəd] –усталый
- 19. admit [əd'mɪt] –соглашаться
- 20. disposal [dis'pəuzl] –возможность распорядиться
- 21. recreation [rekri'eɪʃn] –отдых
- 22. facilities [fə'sılıtız] –возможности, условия
- 23. tokeepfit[ki:pfit]-быть бодрым, здоровым
- 24. advantage [əd'va:ntɪdʒ] –польза

#### 2. Read the text.

#### A New Period in My Life.

My name is Dima Ivanov. On leaving school I entered Brest State Technical University.

Brest State Technical University is one of the largest scientific and educational centers in the western part of Belarus. It enables training of highly qualified specialists and conducts fundamental scientific research in the areas of construction, architecture, electronics, mechanical engineering, economy and ecology. Now I am a first-year student of Civil Engineering DepartmentI think Civil Engineering is a very important branch of national economy. The purpose of Civil Engineering is to construct and reconstruct residential and industrial buildings, bridges, schools, palaces and hospitals. This requires the use of new building methods and new building materials. That is why we must know all the latest achievements of science and engineering. I entered the university to be provided with a high standard of theoretical and practical knowledge.

I am a student of Technical University. My parents live in Grodno and I study in Brest so I need some housing. There are two opportunities for me: I can live in a dormitoryor rent a flat . I decided to live in a dormitory.

A compact university campus is set in beautiful surroundings, with plenty of green space to relax. The campus offers a range of facilities to satisfy students' day-to-day needs:

Recreation and Wellness Center four student dormitories a bank a chemist's shop a laundry a store 3 gyms

Located on the campus, the café "Zodchie" provides freshly made hot and cold food.

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. There is a good library in our University. It is on the ground floor. The library is open from 9 a.m. till 6 p.m. It is accessible to all the students and teachers free of charge. Subscription to the library is conducted according to a student's identity card. I have got a membership card and I can borrow books from the library. I can use books in the reading-room or take them on a loan. I can take books home for a certain number of days. The entire stock is represented in the author and classified catalogues. The newly acquired books are always displayed on the stands.

The library possesses more than 700,000 books, magazines and other printed works. Foreign literature is in English, French, German, Polish, Spanish, and other languages. There is a good selection of books for professional training. A special place among the library holding belongs to the reference collection.

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. The Students' Club is the center 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 showtheir creativity. They can join university amateur societies and groups or try out themselves as script writers, producers and actors at University shows and festivals.

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 conduct more than 50 athletic events. The Citadel Alpinist Club is one of the most attractive centres 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.

#### 3. Complete the sentences:

1. On leaving school I entered...

Brest State Technical University is one of the largest...

2. I think Civil Engineering is...

3. The purpose of Civil Engineering is...

- 4. A compact university campus is set... 5. The campus offers... 6. The University Sports Club offers... 4. Find one synonym to the first word in each row: 1. Opportunity – share – shower – chance 2. Usually – nearest – as a rule – latest 3. Rather – enough – ready – quarter 4. Turn on – serve – switch – prefer 5. Completely – usually – finally – entirely 6. Prefer – tired – like – different 7. Healthy – sound – hard – successful 5. Find the suitable meaning to each word:
- 1. Need a) clean, polish, make tidy or smooth
- b) go away from 2. Rent –
- 3. Brush c) want, require
- d) interval (in space or time) 4. Leave –
- 5. Miss e) occupy or use (land, buildings, etc.) for rent
- f) fail to hit, hold, catch, reach, see 6. Success – g) person or thing that succeeds 7. Break –
- 6. Use sentences in the Past and Future Simple, Continuous or Perfect tense

#### Example:

forms.

- 1. Being happy <u>is</u> one way of being wise.
- 2. Being happy was one way of being wise.
- 3. Being happy will be one way of being wise.

Example: 1. Things are not going my way.

- 2. Things were not going my way.
- 3. Things will not be going my way.

1. She has just done some work about the house. Example:

- 2. She had done some work about the house by 8.
- 3. She will have done some work about the house before 6.
- 1. My classes begin at 8:10.
- 2. We leave the house at ten minutes past eight and walk to the nearest bus-stop.

	<ul><li>3. That is the time to share the latest news.</li><li>4. We are watching TV now.</li><li>5. It has made people better.</li></ul>		
	6. I have m	nanaged to do everything very well.	
Passi	7. Use serve tense for	ntences in the Past and Future Simple, Continuous or Perfect	
1 46551		1. I <u>am woken up</u> by my roommate.	
		2. I <u>was woken up</u> by my roommate.	
	г 1	3. I shall be woken up by my roommate.	
	Example:	<u> </u>	
	Example:	<ul><li>2. Breakfast was being served at that time.</li><li>1. The Flat has been rented by him.</li></ul>	
	<u> </u>	2. The flat had been rented by him by August.	
		3. The flat will have been rented by him before September.	
	1. The late	st news is listened to on the radio.	
	2. The latest news is shared by us.		
	3. The lect	ure is being presented now.	
	4. The repo	ort is being writtenby him now.	
5. She has just left the house.		just left the house.	
	6. The classes have already begun.  7. They have had a lecture in physics.		
	8. Answer	the following questions:	
	1. Where d	lo you live and study?	

- 2. Do you live in a dormitory or in a flat?
- 3. Who is your best friend at the University?
- 4. Do you get on well with your group mates?
- 5. How many classes do you have every day?
- 6. What subjects are you good at?
- 7. Where do you have lunch?
- 8. You don't have much free time on week-days, do you?
- 9. How often do you go to the library?
- 10. Do you use any modern means of education?
- 9. Discuss the following points of the text in the form of a dialogue. Use all

#### types of questions.

Example:

- 1. Do hisparents live in Minsk?
- 2. Where does hestudy?
- 3. Can he live in a dormitory or in a flat?
- 4. Who shares the flat with the young man?
- 5. He studies at the University, doesn't he?
- 1. Renting a flat.
- 2. Morning routine.
- 3. At the University.
- 4. Having meals.
- 5. Leisure time.
- 6. In the evening.

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

- 1. Only the educated are free (Epictetus, Phrygian Stoic, philosopher, c AD 50-135).
- 2. The educated differ from the uneducated as much as the living from the dead (Aristotle, one of the most celebrated Greek philosophers, 384-322 BC).
  - 3. Knowledge is power (Francis Bacon, British painter, 1909-1992).

## 11. Speak about your working day with your groupmate in the form of a dialogue.

#### **NICK'S USUAL WORKING DAY**

#### 1. Read and translate the text.

Hi, nice to meet you all!

My name is Nick Price. I am a freshman at MIT – Massachusetts Institute of Technology. I am not from Boston myself. I was born in Vermilion, Ohio, not far from Cleveland.

My family is not very rich, that is why I can't afford to live on a campus. But it is a rule, that every student must reside during his or her freshman year on the campus. To cover some of the expenses I've got to work part-time on the campus. I work in cafeteria.

Now let me tell you about my usual working day. I wake up at seven in the morning. My alarm-clock radio is tuned to my favourite radio station. My roommate Todd Hall is a football player. He jogs every morning at 6:30. He is still out jogging when I get up. First I take a cold shower and brush my teeth. Then I dress myself up and rush to work – to the University cafeteria. I wash dishes and clean the tables. It is not a very interesting job, I know that, but soon I'll be a cook and will earn more. My boss Suzie is very strict but very nice when you do your job properly.

My first class starts at 11:15. The professor is never late for his classes. The lecture hall we sit in has about 100 seats. MIT is a very big school. I think that it is the best school of science and technology in the US.

At 2:00 p.m. I eat lunch at school cafeteria. The food is free for me because I work there. I am a vegetarian and I don't like drinks with caffeine. I prefer cool filtered water or juice.

Then I have two more classes. I need to go to the library right after the classes to

do my homework. There I meet my friends and we talk a lot. Twice a week I play basketball with my friends. I swim once a week. Usually after library we go out to the cafe or just sit outside and talk.

I have dinner at 6:00 p.m. at the little Chinese restaurant not too far from the dormitory or I cook myself in the kitchen in my dorm. My favourite food is salami pizza and potato salad.

After dinner I watch TV or play ping-pong with my friends. When it is Friday, we go to the football game.

I usually read before I go to bed. It calms me down after the long day. I guess, that's pretty much it for now. See you later!

#### 2. Answer the questions.

- 1. Where does Nick Price study?
- 2. What year of study is he in?
- 3. Is Nick from Boston?
- 4. Is Nick's family a rich one?
- 5. What is Nick's job? Do you think he enjoys it?
- 6. Is Massachusetts Institute of Technology a good school?
- 7. Where does Nick spend his evenings?
- 8. What does Nick usually do on Friday nights?

Грамматический материал представлен в учебном пособии: Хведченя, Л. В. Грамматика английского языка = Comprehensive English Grammar : учеб. пособие / Л. В. Хведченя. — Минск : Изд-во Гревцова, 2011.-480 с.

- имя существительное,
- артикли,
- имя прилагательное,
- числительные,
- глагол (действительный залог).

## 2.1.2. BREST STATE TECHNICAL UNIVERSITY IN THE SYSTEM OF HIGHER EDUCATION OF THE REPUBLIC OF BELARUS

#### **EDUCATION IN BELARUS**

#### 1. Before you read the text, talk about these questions.

What institutions does the system of education in the Republic of Belarus include? What are the most famous educational establishments in our country?

#### 2. Read the following words and learn their meaning.

1)	trend	тенденция, направление
2)	unification	объединение

3) continuity непрерывность, преемственность

4) to embrace включать

5)vocationalпрофессиональный6)retrainingпереподготовка7)compulsoryобязательный

8)	to reveal	раскрывать, показывать
9)	to acquaint	знакомить

10)electiveфакультатив11)simultaneouslyодновременно12)post-graduateпослевузовский

13) entity организация, объект

14)grantгрант15)scholarshipстипендия16)defenseзащита

17) thesis научная работа, диссертация

#### 3. Match the words in the box with definitions 1-12.

simultaneously	compulsory	timetable	scholarship
to reveal	trend	continuity	elective
requirement	certificate	unification	establishment

- 1) an official document that states that the information on it is true
- 2) an <u>amount of money given by a collegeor other organization</u> to <u>pay</u> for the <u>studies</u> of a <u>person</u> with <u>greatability</u>
  - 3) something that must be done; necessary by law or a rule
  - 4) happening or being done at exactly the same time
  - 5) the <u>place</u> where an <u>organization</u> operates
  - 6) a subject that someone can choose to study as part of a course
  - 7) the generaldirection of changes or developments
  - 8) the state of something without change or interruption
  - 9) something <u>needed</u> or necessary
  - 10) a detailedplanshowing when events or activities will happen
  - 11) to make known or show something that was previously secret
  - 12) the <u>forming</u> of a <u>single</u> thing by <u>bringing</u> together separate parts

## 4. Read the text and decide whether it is worth studying English. Use the dictionary to look up unfamiliar words.

The system of education in the Republic of Belarus is based on national traditions and global trends in world education. These guarantee equal access to all educational stages, unification of the requirements, continuity of all training stages and state financial support. The system of education in Belarus embraces a great number of educational establishments.

Today Belarusian educational system includes preschool education, secondary education (primary, basic and general secondary school), vocational education and secondary special education, higher education, postgraduate research education, adult education and retraining.

The system of education in Belarus starts with the preschool education. It is not compulsory in Belarus but around 70% of children attend nursery or kindergarten before they go to school. These institutions are for children under six years. Kindergartens develop physical growth, the ability to communicate, reveal personal qualities and talents. Children who attend kindergarten learn social skills when they play with other children. Such children are better prepared for primary school. Children are taught pre-reading and pre-writing as well as basic mathematics. The children learn to follow a timetable, respect their classmates and teacher. The public nurseries and

kindergartens are free of charge but parents should pay for meals.

General secondary education in Belarus starts at the age of 6 and includes three levels: primary, general basic and general secondary. Secondary school starts with primary school where children are taught to read, count, draw, they are given knowledge in maths, nature studies and music. The primary and basic secondary school course is compulsory. It lasts for nine years. Secondary basic school itself acquaints pupils with culture, science, technology. Pupils study obligatory subjects like maths, biology, physics, chemistry, history and attend different electives to enrich their knowledge in favourite subjects as well as define their future profession. On successfully graduating from basic school, young people have the opportunity to continue their education at high school, college or vocational school. Those interested can simultaneously receive secondary education and professional training. The certificate of general secondary or secondary special education is the document which enables young people to continue their education at the university level.

The Belarusian system of higher education consists of universities, academies, and institutes. Universities and academies offer graduate and post-graduate programs and are engaged in fundamental research. Whereas universities offer education in a wide variety of areas, academies have a narrower specialization. Institutes are also highly specialized and usually have no post-graduate programs. They can function as separate entities or as part of a university.

Most courses run for 4 or 5 years. Higher educational institutions offer full-time (day) and part-time programs. The most common and popular is full-time education. Two-thirds of all students choose this form of education. Grants are available for full-time students and scholarships are awarded to very gifted students. Students who graduate with honors are awarded a "red certificate."

The degree that has been traditionally conferred by Belarusian higher educational institutions is Certified Specialist. It usually requires four or five years of training, success in final state examinations, and defense of a thesis. Graduates of higher education institutions have the possibility of receiving postgraduate education.

The Belarusian state policy for higher education is mainly based on the Constitution of the Republic of Belarus, the Code of the Republic of Belarus on Education, as well as other state decrees and regulations. All types of educational establishments stimulate effectiveness of education according to one's abilities and inclinations and correspond to the state educational standards.

#### 5. Find equivalents to the following Russian word combinations in the text.

- 1) мировые тенденции
- 2) доступ ко всем ступеням образования
- 3) раскрывать личностные качества
- 4) посещать различные факультативы
- 5) фундаментальные исследования
- 6) широкий выбор направлений
- 7) более узкая специализация
- 8) функционировать как отдельные объекты
- 9) выпускные государственные экзамены
- 10) по способностям и склонностям

#### 6. Match the words to form word combinations. Make affirmative or

negative sentences with each word combination.

2 1 0 2 0 1 1 0 1 1 0 1 1 1 1 1 1 1 1 1	'' 01 01 0 0 011101110110110
national	research
equal	program
financial	knowledge
educational	a timetable
reveal	of a thesis
follow	establishment
to enrich	traditions
fundamental	support
defense	talents
part-time	access

	7. Complete t	he sentences witl	n appropriate wor	ds or phrases from the box.
	social skills	obligatory	a "red certificate	basic mathematics scholarships future profession
	general	free of charge	pre-school	scholarships
	stimulate	full-time	higher education	future profession
	1) The system	of education in B	elarus starts with th	ne education.
	2) Children wl	no attend kinderg	arten learn	when they play with
other	children.			
	3) Children	are taught p	re-reading and	pre-writing as well as
	4) The public 1	— nurseries and kind	lergartens are	·
				starts at the age of 6.
	6) Pupils study	7	subjects like maths	s, biology, physics.
	7) Secondary b	pasic school helps	pupils define their	
	8)	are award	ed to very gifted st	idents.
	9) The system	n of	consists of	universities, academies, and
institu	ites.			
	10) Students w	ho graduate with	honors are awarde	d education. effectiveness of
	11) Two-thirds	s of all students cl	noose	education.
	12) All types	of educational	establishments	effectiveness of
educa				
	-		ı correct prepositi	
	1) General secondary education in Belarus starts the age of 6.			
	2) The system	of education in B	elarus starts	the preschool education.
				re studies and music.
	4) Around 70%	% of children att	end nursery or kir	dergarten they go to
schoo				
	5) The Belarus	sian policy for hig	her education is ma	ainly based state laws.
	6) The certific	ate of secondary	education enables	young people to continue their
educa	tion the un	•		
			n six yea	
	8) The educati	onal policy in the	Republic of Belar	us guarantees equal access
all ed	ucational stages	S.		
			e school, young p	eople have the opportunity to
contir	nue their educat			
	10) Universitie	es and academies	are engaged f	undamental research.

### 9. Read the text again and answer the following questions.

- 1) What stages does Belarusian educational system include?
- 2) Is preschool education compulsory in our republic?
- 3) What advantages do kindergartens give to children?
- 4) Do parents have to pay for public nurseries and kindergartens?
- 5) How many levels does general secondary education include? What are they? Which of them are compulsory?
  - 6) What is the role of primary school in children's life?
  - 7) What opportunities do pupils have after graduating from basic school?
  - 8) What is the difference between universities and academies?
  - 9) Who can be awarded a "red certificate"?
  - 10) What are the requirement for getting a Diploma of Certified Specialist?

### 10. Fill in the table with the words given below.

higher education secondary special education primary secondary school general secondary school vocational education preschool education basic secondary school

4-5 years 1-4 years

10-16 years old 6-10 years old 3-6 years old

### **EDUCATION IN MY LIFE. WHY DO WE LEARN ENGLISH?**

# 1. Before you read the text, talk about these questions.

Why do you think English is the world's most widely used language? What are the advantages of studying English? Is it important for your future profession to have skills in English?

# 2. Read the following words and learn their meaning.

1) to communicate общаться 2) обычный average 3) access доступ

4) стараться, стремиться to strive 5) widespread широко распространённый to conduct проводить, осуществлять 6)

7) to consider считать, полагать

8) majority большинство

9) option выбор, возможность 10) content содержание, контент

11) article статья

12) to share делиться, обмениваться

13) competitive конкурентный 14) to attendпосещать15) successуспех

#### 3. Match the words in the box with definitions 1-12.

widespread	content	to share	employability
to strive	to conduct	access	edge
to cover	mobility	to attend	outnumber

- 1) existing in many places or among many people
- 2) to go officially and usually regularly to a place
- 3) to organize and perform
- 4) the opportunity to use something
- 5) the skills and abilities that allow you to be employed
- 6) to report the news about a particular important event
- 7) an advantage over other people
- 8) the ability to move freely
- 9) everything that is contained within something
- 10) to be greater in number than someone or something
- 11) to put something on a social media website so that other people can see it
- 12) to try very hard to do something

# 4. Read the text and decide whether it is worth studying English. Use the dictionary to look up unfamiliar words.

Nowadays English seems to be the only language that everyone feels the need to study. The reason is that it is the international language of the world which can be used cross-culturally to **communicate** with each other. Obviously, English opens so many doors for the **average** person, allowing **access** to people, places, jobs. It is not only one of the most popular mother tongues in the world but the main foreign language too. This means that two people who come from different countries usually use English as a common language to communicate. That's why everyone **strives** to learn the language in order to get in touch on an international level. Speaking it will help you communicate with people from different countries all over the world, not just English-speaking ones. English is the language which is spoken by perhaps 400 million people. It is a geographically **widespread** languageand it is the official language of more than 60 sovereign states.

The knowledge of English is often important in fields like computing, business and medicine. Up to half of all business deals throughout the world **are conducted** in this language. English is the universal languageof international politics and science. It opens doors to the academic world. Many European universities are becoming highly international: the common working language of visiting scholars, students and professors from all around the world is English. It is generally **considered** that English is the languageof the scientific community. Most of the research and studies you find in any given scientific field will be written in it. For example, roughly 80% of all the journals are published in English, two-thirds of all scientific papers are published in English, and it is reported that only half of scientific **articles** written in English come from English-speaking authors.

On the Internet the **majority** of websites are written and created in English. Even sites in other languages often give you the **option** to translate the site. Learning English can help you communicate more effectively online while also giving you **access** to a

much wider choice of **content**. When someone wants **to share** something with as large an audience as possible, English is the most likely language to choose. About 75% of the world mail correspondence is in English. At least 35% of Internet users are English speakers, and about 70% of the Internet **content** is in English although reliable figures on this are hard to establish.

It's the primary language of the press: more newspapers and books are written in English than in any other language. Half of the world newspapers are in English. Journalists and writers around the world think that a good command of Englishis an increasingly useful skill. Even if you are writing your articles and doing interviews in your own language, with good English you can get background material from international wire services, papers, and magazines from around the world. You can interview foreign diplomats, businessmen, and even get sent **to cover** overseas stories.

English opens doors to employment, education and **mobility**. The knowledge of the English language is vitalin many professions. The ability to speak English increases an individual's **employability** — which is a big plus in today's **competitive** times. Publishing in foreign journals and **attending** international conferencesare some of the key steps to **success** in career. Multinational corporations employ English speakers in offices around the world. All these facts prove the importance of knowing English for professional career. Whether you are aiming to be an engineer or a philosopher knowing English can giveyou a vital **edge** over others. Besides, learning languages broadens the mindand enrichesall of us culturally.

Undoubtedly English has become a constructed international language developing professional and personal relationships. Non-native speakers now **outnumber** native speakers and as a result English belongs to the world rather than to any country. Do you agree with this and accept the fact that if you don't want to get left behind you should learn English?

# 5. Find the equivalents to the following Russian word combinations in the text.

- 1) распространённый язык
- 2) универсальный язык международной политики
- 3) достоверные данные
- 4) научное сообщество
- 5) посещение международных конференций
- 6) хорошее владение английским языком
- 7) расширять кругозор
- 8) обогащать в культурном отношении
- 9) давать важное преимущество над другими
- 10) остаться позади

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

mother	community
international	corporation
academic	skill
visiting	scholar
scientific	figures
reliable	career

useful	world
background	material
professional	tongue
multinational	politics

7. Complete the sentences with appropriate words from the box.

scientific	the mind	English-speaking	access
command	professors	cross-culturally	widespread
effectively	material	the ability	content

1) English as the international language can be used	to
communicate with each other.	
2) English allows to people, places and jobs.	
3) English is a geographically language.	
4) The common working language of visiting scholars, students and	
from all around the world is English.	
5) Two-thirds of all papers are published in English.	
6) Only half of scientific articles written in English come from	
authors.	
7) Learning English can help you communicate more online.	
8) About 70 % of the Internet is in English.	
9) A good of Englishis an increasingly useful skill.	
10) With good English you can get background from internation	ıal
wire services, papers, and magazines.	
to speak English increases an individual's employability.	
12) Learning languages broadens and enrichesall of us culturally	
· · · · · · · · · · · · · · · · · · ·	

# 8. Read the sentences 1)-8). Match the phrases in bold with suitable definitions a)-h). Paraphrase the sentences.

- 1) Nowadays everyone **feels the need** to study English.
- 2) Everyone strives to learn the language in order to get in touch on an international level.
  - 3) English **opens so many doors for** the average person.
  - 4) Most of all scientific papers are published in English.
  - 5) Even sites in other languages often give you the option to translate the site.
- 6) Journalists can get background material from international wire services, papers, and magazines.
  - 7) One of the key steps to success in careeris attending international conferences.
- 8) Multinational corporations **employ** English speakers in offices around the world.
  - a) hire
  - b) outside sources
  - c) participating in
  - d) finds it necessary
  - e) to communicate
  - f) gives a lot of opportunities to
  - g) are released
  - h) allow

### 9. Answer the following questions. Use the sentences from the text.

- 1) Is the English language one of the most popular mother tongues in the world?
- 2) How many people in the world speak the English language today?
- 3) Why is it said that English opens doors to the academic world?
- 4) How many articles written in English come from English-speaking authors?
- 5) What language option do websites often give you?
- 6) Why is English called the primary language of the press?
- 7) Why is a good command of English considered a useful skill for journalists?
- 8) What are some of the key steps to success in career according to the text?
- 9) How can you prove that knowledge of English increases an individual's employability?
- 10) Why is it possible to say that English belongs to the world rather than to any country?

# 10. Prove that English is important in the modern world. Enumerate at least five advantages of knowing English. Try to use the following words and word combinations:

To begin with

It is true that

First of all

What is more

**Besides** 

Moreover

In addition to this

I can't but agree that

In conclusion I can say that

# **ANN'S ACADEMY**

#### 1. Read and translate the text.

Hello again! Now let me tell you about my Polytechnical Academy. I am really glad that I study here. It is one of the finest country's higher educational institutions. Many famous people have graduated from my Academy, and not only engineers or scientists, but many outstanding writers, actors, showmen and politicians. Studying at our Academy gives a solid background in all spheres of knowledge and prepares for practical work.

Our Academy is quite large and old. It was founded in the 19th century by the famous Russian inventor Vladimir Komarov. First, it was a small department of a large University, but later it was rearranged into an independent institution. Nowadays it is a large school where more than 5,000 students are currently enrolled. About 3,000 are full-time students, like me, and the rest are part time-students. There are also about 150 graduate students. They conduct independent research work and have pedagogical practice.

The course of study at my academy lasts five years. There are many faculties in my academy. Here are some of them: the faculty of industrial automation and robotics, the faculty of plastics, the faculty of machine tools and the faculty of metalworking.

Our academy is large and we have several buildings. One of the buildings is for lectures and seminars only. There are many large halls there so that students of 3-4

groups together can fit in there. And that is more than 100 people. The acoustics [5'ku:stiks] in such large halls is very good but sometimes it is very noisy when students chat during the lecture.

We have two laboratory buildings which are equipped with up-to-date equipment and there students can carry on lab works and conduct various experiments. Many students from my group do their own research work.

There are several cafes at the academy. My favourite one is situated in a separate one-storeyed building and people say that this is the oldest canteen or student's cafe. The food there is tasty and very affordable.

There are also several dormitories or hostel buildings where students from other cities live. But you know already that I don't live in a dormitory – I rent an apartment.

### Vocabulary:

кафедрой

currently – в настоящее время to be enrolled – числиться в списках студентов full-time students – студенты дневного отделения part time-students – студенты вечернего отделения to conduct – проводить course of study – курс обучения industrial automation – промышленная автоматика robotics – робототехника plastics – пластмассы machine-tools - станки metalworking – металлообработка figure ['figə] – фигура, цифра noisy – шумный to chat – беседовать, болтать to be equipped with – быть оборудованным up-to-date equipment – современное оборудование carry on – проводить research work – исследовательская работа one-storeyed – одноэтажное tasty ['teisti] – вкусный affordable – доступная (to afford – позволять) classroom – класс, аудитория lecture hall – лекционный зал laboratory – лаборатория gym (gymnasium) – спортзал semester (term) – семестр school year – учебный год course of studies – курс обучения academy – академия university – университет institute – институт faculty, college, department – факультет department, chair of... – кафедра head of the department, chief of the department, chair (man, woman) - 3aB. substitute – заместитель teaching instructor (TI) – преподаватель professor – профессор dean – декан Rector – ректор teaching staff, faculty members – преподавательский состав full-time student – студент(ка) дневного отделения part-time student – студент(ка) «вечерник» student of distant education – студент(ка) «заочник» student of preparatory courses – слушатель подготовительных курсов undergraduate student – студент 1-4(5) курсов graduate student – студент 5-6 курсов (магистрант, аспирант)

#### 2. Tell about:

- a) your secondary school (college)
- b) the faculty of your university
- c) your favourite teacher at school.

### 3. Do you know?

1)

- 1) When was your University or Academy established?
- 2) Who was the first Rector?
- 3) Were there any famous a) scientists, engineers b) politicians c) artists among the graduates of your Institute?
  - 4) How many people are currently enrolled?
  - 5) What is the most popular faculty in your Academy?

# 4. Do you agree or disagree with the following statements:

- a) Larger schools are better than smaller ones.
- b) It is impossible to enter the university if you haven't attended preparatory courses.
  - c) The best professors are the oldest ones.
  - d) It is better to live in a dormitory or student hostel than to rent an apartment.
  - e) Professors always know more than students and teaching instructors.

### **MY UNIVERSITY**

### 1. Read the following words and word combinations. Learn their meaning. training

полготовка

1)	uaning	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)	Ltd	000
10)	extra-mural	заочный
11)	degree	степень

# 2. Read the text Brest State Technical University and decide whether it is 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, Economics and Electronics Faculties 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 5 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:Ltd. "Epol Soft",EPAM systems inc., Ltd. "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

The Department of Pre-University Training

At the Departmebt 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' Cluband 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 Institute Higher Technical Professional Polytechnic (Poland), Biberach(Germany) and Higher Technical Ravensburg-Weingarten School in (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.

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

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

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

### 5. 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

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.

Clay P. Bedford

# 6. Read the text about METU. Compare its structure and facilities with BrSTU.

Middle East Technical University (commonly referred to as METU) is a public technical university located in Ankara, Turkey. The university puts special emphasis on research and education in engineering and natural sciences, offering about 40 undergraduate programs within 5 faculties, and 97 masters and 62 doctorate programs. The main campus of METU spans an area of 11,100 acres (4,500 ha), comprising, in addition to academic and auxiliary facilities, a forest area of 7,500 acres (3,000 ha), and the natural lake Eymir. METU has more than 120,000 alumni worldwide. The official language of instruction at METU is English. Middle East Technical University was founded under the name "Orta Doğu Teknoloji Enstitüsü" (Middle East Institute of Technology) on November 15, 1956, to contribute to the development of Turkey and the surrounding countries of the Middle East, Balkans, and Caucasus, by creating a skilled workforce in the natural and social sciences.

In 1956, the Department of Architecture initiated the first academic program at METU, followed by the Department of Mechanical Engineering in the spring of 1957. At the start of the 1957–1958 academic year, the Faculty of Architecture, the Faculty of Engineering, and the Faculty of Administrative Sciences were established. In 1959, the establishment of the Faculty of Arts and Sciences was completed. The Faculty of Education launched its academic program in 1982.

As of 2010, METU has approximately 23,000 students, of which 15,800 are enrolled in undergraduate programs, 4,500 in masters, and 2,700 in doctorate programs.

METU has 42 academic departments, most of which are organized into 5 faculties:

Faculty of Architecture: Architecture, City and Regional Planning, Industrial Design

Faculty of Arts and Sciences: Biology, Chemistry, History, Mathematics, Molecular Biology and Genetics, Philosophy, Physics, Psychology, Sociology, Statistics

Faculty of Economic and Administrative Sciences: Business Administration, Economics, International Relations, Political Science and Public Administration

Faculty of Education: Computer Education and Instructional Technology, Educational Sciences, Elementary Education, Foreign Language Education, Physical Education and Sports, Secondary Science and Mathematics Education

Faculty of Engineering: Aerospace Engineering, Chemical Engineering, Civil Engineering, Computer Engineering, Electrical and Electronics Engineering,

Engineering Sciences, Environmental Engineering, Food Engineering, Geological Engineering, Industrial Engineering, Mechanical Engineering, Metallurgical and Materials Engineering, Mining Engineering, Petroleum and Natural Gas Engineering

In addition to these, there are the Department of Basic English and the Department of Modern Languages in the School of Foreign Languages; the Technical Vocational School of Higher Education; and, bound directly to the President's Office, the Department of Turkish Language and the Department of Music and Fine Arts.

The University develops close contacts with BrSTU. A number of our students have studied for 1 term in METU due to Erasmus academic mobility programs. In 2017, within Erasmus program, the head of Foreign language department of BrSTU Mr. V.I. Rahuba delivered lectures in Business English at METU.

### WELCOME TO BREST STATE TECHNICAL UNIVERSITY

### 1. Pronounce the following words correctly and learn their meaning.

- 1. graduate ['grædjuət] –выпускник
- 2. contribute [kən'tribjut] –делать вклад
- 3. extra-mural ['ekstrə'mjuərəl] –заочный
- 4. priority [prai'>rıtı] –приоритет
- 5. available [ə'veiləbl] –доступный
- 6. access ['æksəs] доступ
- 7. compliance [k⊃m'plaiэns] –соответствие
- 8. application [əplı'keı√ən] –применение
- 9. enable [ı'neıbl] –дать возможность
- 10. award [əˈwɔːd] –присуждать, награждать
- 11. evident ['evidənt] очевидный
- 12. creation [krı'eı∫n] –создание
- 13. determine [dɪ'tə:mɪn] –определять
- 14. advantage [əd'va:ntɪdЗ] –преимущество
- 15. responsibility [ris,pɔnsi'biliti] –ответственность
- 16. possess [pə'zes] –обладать, владеть
- 17. require [rı'kwaıə] –требовать
- 18. facilities [fəˈsılıtız] –оборудование
- 19. fit [fit] -соответствовать
- 20. rank [ræηk] –занимать какое-либо место
- 21. invention [in'ven√n] –изобретение
- 22. trial ['traɪəl] –пробный
- 23. amenities [ә'mi:nɪtɪz] –всё, что соответствует хорошему настроению
- 24. recreation [rəkrı'e∫n] –развлечение, отдых
- 25. participate [pa:tisipeit] участвовать

#### 2. Read and translate the text.

The state policy of the Republic of Belarus in the field of higher education is based on three priorities: available education, its quality and the financial efficiency of the activities of higher education institutions (HEI). Ever since it declared its sovereignty, higher education in Belarus has experienced considerable growth. The number of undergraduates has increased from 180 to 475 people per ten thousand citizens. The Belarusian state policy for higher education is mainly based on the

Constitution of Belarus, the Code of the Republic of Belarus on Education, as well as other decrees and regulations of the President and the Council of Ministers of the Republic of Belarus. The state programdefined the order and terms of transition in the various stages of professional training at undergraduate level (4, 4.5 and 5 years). The Code of the Republic of Belarus on Education regulates the professional training of Belarusian citizens and sets out the legal, organizational and financial basis for the national higher education system. The process of receiving higher education includes two stages: The first stage is realized by higher education providing training in areas ofspecialization, confirmed by the corresponding qualification and specialist's diploma (4, 4.5 or 5-year curriculum). The second stage is realized by research and professionally oriented Master's Degree programs, confirmed by a Master's Degree diploma (1 or 2-year curriculum). Graduates of higher education institutions also have the possibility of receiving postgraduate education. On May 14th, 2015, Belarus joined the Bologna Process and the European Higher Education Area (EHEA). The decision was made at the Yerevan Conference of Education Ministers of the EHEA and the Bologna Policy Forum.

Brest State Technical University began as Civil Engineering Institute in 1966 and later was changed into Brest Polytechnical Institute. 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.

Brest State Technical University is one of the largest educational and scientific centres in the western part of Belarus having a broad and constantly developing infrastructure. The University is divided into 8 faculties: Civil Engineering, Engineering Systems and Ecology, Mechanical Engineering, Electronic and Information Systems, Economics, Preparatory Faculty, Faculty of Extra-Mural Studies and Faculty of Innovation, Management and Finance. The students gethigher education in 27 specialties. The teaching staff numbers more than 600 members including Doctors of Science and Candidates of Science. Some of them are scientists known all over the world.

One of the main priorities in the University development is the further supply of the teaching process with the necessary computing equipment and software in addition to the available ones. The university has already gota local computer network of more than 500 computers at all the faculties, departments, scientific centres and specially equipped classrooms. So the students and the University stuff are provided with the 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 Further Education and Retraining 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 specialties.

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 astandard of professional training. BSTU is a fifty-year-old educational establishment with itsown 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 forsuccessful creation of the country's future. High-quality technology and successful

studying aremade 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 700,000 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 including the University academic staff 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 rangehigh at international competitions and research works are awarded with the first- and second-degree Diplomas at republican competitions of research works. Our students take out patents on their inventions and participate in arranging trial production. The University has well-developed social services available on the campus. Excellent athletic and recreational facilities are also available on the campus. Students can participate in sports activities to keep themselves fit and enjoy their free time. Students' festivals and performances as well as various societies run by the Students' Club help students to spend their free time to the best advantage and display their creative abilities.

The University develops international contacts in the sphere of science and education with institutes of higher learning in Russia, Ukraine, Poland, Germany, Great Britain, Italy, Spain andPortugal. Our University graduates 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. On graduating the University, a number of students become promising scientists, some of them continue their scientific activity at our University delivering lectures and supervising new lines of scientific research. We are proud of our University and of the fact that it constantly develops turning into one of leading educational and scientific centres in the Western part of Belarus.

# 3. Complete the sentences:

3. possess – advantage – possible – own

	1.	The	state	policy	of the	Republic	of Belarus	s in th	ne field	of higher	· education	is
based												

····
2. The Belarusian state policy for higher education is mainly based on
3. Brest State Technical University began
4. At present Brest State Technical University is
5. The University is divided into 8 faculties:
6. The University develops international contacts
<b>4. Find the synonym to the first word in each row:</b> 1. award – give – access – enable
2. determine – extra-mural – decide – compliance

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4. require – depend – need – combine
5. recreation – invention – staff – refreshment
6. stock – supply – trial – research
7. state – express – carry – deliver

### 5. Find the suitable meaning to each of the words:

1.graduate – a) high place among competing claims
2.contribute – b) plain or clear to the eyes or mind
3.priority – c) person who holds a university degree
4.available – d) production of the human intelligence
5.application – e) that may be used or obtained

6.evident – f) join with others in giving help, money, etc.

7.creation – g) putting to a special or practical use

### 6. Translate the following sentences. Pay attention to the Gerund.

Example: The Institute of Further Education and Retraining gives the University students an opportunity to get a second Diploma.

Институт повышения квалификации и переподготовки даёт студентам университета возможность получить второй диплом.

- 1. It is evident that our future progress depends on creating new high technologies.
- 2. Everything will be determined by engineering and a standard of professional training.
- 3. BSTU is fifty- year old education 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.
- 4. Correspondence and evening forms of learning are a good opportunity for persons with financial, age, physical and other limitations.
- 5. Every establishment occupies its particular niche in training of highly qualified staff for various branches of national economy.
- 6. 3 forms of learning available at Belarusian higher educational establishments: full-time, evening and by correspondence.
  - 7. Full-time learning is the most widespread.

# 7. Answer the following questions:

- 1. Did Brest Technical University begin as a Civil Engineering Institute?
- 2. What educational establishment is it now?

- 3. What has a broad and constantly developing infrastructure?
- 4. How many faculties is it divided into?
- 5. The students get education in 21 specialties, don't they?
- 6. What is the total student population?
- 7. What can you say about the teaching staff?
- 8. Can you name one of the main priorities of the University?
- 9. What kind of opportunities do the students have?
- 10. High quality teaching and successful studying are made possible by the educational facilities, aren't they?
- 11. What was set up to carry out research work on the problems in the construction industry of the country?
  - 12. Who takes an active part in the reconstruction of Brest?
  - 13. Do the students take out patents?
  - 14. Are there any recreational facilities at the University?
  - 15. Why are you proud of the university?

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

Example: 1. Is BSTU one of the largest educational and scientificcentres?

- 2. When was the University founded?
- 3. Who contributes a lot to the development of science andengineering?
  - 4. Is the University divided into 7 or 9 faculties?
  - 5. The students get higher education in many specialities,don't they?
  - 1. The foundation of BSTU.
  - 2. The structure of the University.
  - 3. Great opportunities for students.
  - 4. Educational facilities.
  - 5. The achievements of the students.
  - 6. Recreational facilities.

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

- 1. The educated differ from the uneducated as much as the living from the dead (Aristotle, one of the most celebrated Greek philosophers, 384-322 BC).
- 2.An education isn't how much you have committed to memory, or even how much you know. It's being able to differentiate between what you do know and what you don't (Anatole France, French novelist and critic, 1844-1924).
- 3. Education is a progressive discovery of our ignorance (Will Durant, US teacher, philosopher, and historian, 1885-1982).
- 4. They know enough who know how to learn (Henry Adams, (US historian, essayist, and novelist, 1838-1918).
  - 5. Knowledge is power (Francis Bacon, British painter, 1909-1992).
- 6. The essence of knowledge is, having it, to apply it; not having it, to confess your ignorance (Confucius, Chinese philosopher, administrator, and moralist, 551 BC-479 BC).
- 7. Anyone who stops learning is old, whether at twenty or eighty. Anyone who keeps learning stays young. The greatest thin£ in life is to keep your mind young

(Henry Ford, US industrialist and pioneer in car manufacture, 1863-1947).

8. Learning makes a good man better and an ill man worse (Thomas Fuller, English cleric and historian, 1608-61).

# 10. Speak about the University with your groupmate in the form of a dialogue.

### **BENEFITS OF EDUCATION**

# 1. 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)

# 2. 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

#### 3. 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

### 4. 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 importanteducationis 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 **significantimprovements** 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 goodeducationsystems, 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 knowledgeand **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.

uns cho	nice.
5	. Find the equivalents to the following Russian word combinations in the
text.	1
1	) принимать правильные решения
	) развивать новые технологии
3	) поддерживать экономику
4	) путь для дальнейшего обучения
5	) черта бедности
	) будущие поколения
7	) нехватка образованных людей
8	) удовлетворённость жизнью
9	) политически стабильный
1	0) выигрывать стипендию
	1) пользоваться уважением среди коллег
1	2) приобретать новые навыки
6	. Complete the sentences with correct prepositions.
	Education helps us build opinions different things in life.
	Education is an important aspect that plays a huge role the modern
industri	alized world.
c	Each of us devotes a big part of our lifeeducation.  The whole education can be divided three divisions.
d	The whole education can be divided three divisions.
e	) Higher education prepares the ultimate path the future.
$\mathbf{f}$	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
	their kids to school.
i)	Education contributes individual and social benefits.
j)	The governments of the majority of countries realize the importance
education	on.
k	) Governments all around the world pay serious attention education
	nd money goodeducationsystems.
1)	Education is becoming one of the main factors for a person's success
-	society.
n	n) Well-educated people enjoy respect their colleagues.

7. Match the words to form word combinations. Give Russian equivalents to

stable

them.

life

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

8	3. (	Co	mp	lete	the	senten	ces	using	the	words	in	bold	from	the	text	

l) Education offers people the opportur	nity 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 fun	ctioning
6) Education is important for future	·
7) all around the world sp	pend money on goodeducationsystems.
8) Education produces significant	in life expectancy.
9) Well-educated people have more hop	pes for
10) To improve your career you've got	new skills.

### 9. 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?

# 10. 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.

### **BREST STATE TECHNICAL UNIVERSITY**

#### Read and translate the text.

Brest State Technical University (BrSTU) is a large scientific and educational center in the western region of the Republic of Belarus. Here specialists are trained and a large volume of scientific research is carried out in the spheres of civil engineering, architecture, electronics, mechanical engineering, economics and ecology.

Since 2011, the university has a quality management system. The development of the university is taking into account the changing needs of the republic and the region in the specialists: conditions are created for the training of highly qualified specialists; the expansion of the list of specialties is systematically planned.

BrSTU is a member of the Association of European Faculties of Civil Engineering with the participation of faculties of civil construction of non-European countries (AECEF), and is also a member of the Association of the Baltic Sea Academy. The university constantly takes part in international innovation exhibitions in Hannover and St. Petersburg, conducts research in the field of information technology, architecture, construction, ecology, water resources use.

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 Civil Engineering Faculty, as a part of the European Association of similar faculties, is developing and is preparing to give diplomas recognized in the EU countries in the near future to its graduates; the quality of the practical training of specialists is enhanced by combining theoretical training with the industrial practice of students of civil engineering specialties; a transition to a two-level training of specialists - specialists and masters.

Brest State Technical University is a member of the Association of Technical Universities and the Association of Network Cooperation, is a part of a consortium working on 6 projects of Erasmus + program. The University has signed over 130 cooperation agreements with leading foreign universities.

The University has scientific-research laboratories: "Self-stressed constructions", "Artificial neural networks", "Pulsar".

The University participates in international innovation exhibitions and hosts international conferences and seminars in the areas of electronics, information technologies, architecture and construction, ecology, economy, and social sciences.

The active participation of students in the creative life of the university, amateur groups and cultural events contributes to the formation of a comprehensively developed, spiritually moral, creative and socially active personality. It is facilitated by the activities of the department of student initiatives and cultural and leisure activities at the university. Traditional cultural events, holiday concerts, competitions and festivals are organized and held during the academic year.

Amateur groups are created and conduct creative activities in various art genres.

Numerous high awards, diplomas of winners and gratitude for participation in the republican festivals of creativity of students testify to the high performing level, the creative successes of the university teams and students at different art festivals: "ART-vakatsyi", "F.-ART.by", "We are Together" "The Palette of Creativity" (Belarus), international choir festivals "Provence" and "Averon" (France), the "European Cup" (Belarus), the festival of university choirs "Universitas cantat" (Poland) and "Paparats Kvetka" (Belarus), festivals of spiritual music "Hajnowka" (Poland), "Derzhavnyi glas", "Harmony of the times" (Belarus), festivals of art song "Univision" (Azerbaijan), "Russian Song" (Russia) and others.

International relations and main international actions

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).

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, TEMPUS, INTAS, etc.

We are interested in establishing effective mutually beneficial partnership relations with universities all over the world in the following areas of cooperation:

- exchange of faculty members and students;
- joint research activities;
- participation in seminars and other academic events;
- collaboration in technopark areas.

#### **ENGLISH UNIVERSITIES**

### 1. Read the following words and learn their meaning.

1) excellenceпревосходство2) availableдоступный

3) destination пункт назначения, цель

4)devotionпреданность6)maintainподдерживать7)supervisionруководство8)mentoring (syn. coaching)наставничество

9) curator куратор 10) expertise [eksp3: 'ti:z] экспертный

11) establishmentучреждение12) enrollзачислять13) achievementдостижение14) attractпривлекать

15) high-tech высокотехнологичный

16) pursuit [pəˈsjuːt]стремление17) rowingгребля

18) martial arts боевые искусства

19) innovative передовой

20) applicant абитуриент, кандидат

21) community сообщество

22) elective факультативный курс

23) discretion усмотрение

24) administration управление, администрирование

25) diverse разнообразный

#### 2. Match the words in the box with definitions 1-12.

elective	high-tech	mentoring	attract
diverse	devotion	destination	expertise
supervision	innovative	pursuit	applicant

<sup>1)</sup> a person who formally requests something, especially a job, or to study at a

college or university

- 2) using the most advanced equipment and methods
- 3) a subject that someone can choose to study as part of a course
- 4) a place where someone is going
- 5) love or care for someone or something
- 6) varied or different, including many different types of things
- 7) having a high level of skill or knowledge
- 8) a process of helping and giving advice to a less experienced person
- 9) responsibility for the good performance of an activity of a person
- 10)an attempt to achieve something
- 11) to make people want to visit a place or find out more about something
- 12) using new methods or ideas

### 3. Read the text. Use the dictionary to look up unfamiliar words.

The higher education system in the UK has been the basis for higher education standards in other countries for years. English universities are known for their academic **excellence** among numerous other advantages. They have an undisputed reputation for the quality of education with thousands of courses **available** for students. They make up an ideal **destination** for over a million international students from all over the world. Let's have a look at some of them.

Oxford and Cambridge Universities are known throughout the world because of their courses and **devotion** to the quality of education. Oxford is the oldest of these two universities, it is more philosophical, classical, theological.

Oxford University is known as the first university in the English-speaking world. It was opened in 1096. The University of Oxford has **maintained** its status as the leading educational and research centre in Britain. Its specialists conduct research in the field of technology and medicine. A unique feature of the university is the educational system. It is based on **supervision** and **mentoring**, and the maximum attention is paid to the personal preparation of each student. The schedule depends on program and course. It includes academic studies, meetings with **curators**, sports and recreational activities. Intensity and type of educational process are chosen by students themselves.

There are around 24,000 students currently enrolled at the University of Oxford. This university offers around 350 graduate degree programs, and it is constantly ranked on top of the major worldwide ranking lists. A lot of international students from 150 countries are getting their qualifications at this university. Known for its **expertise** and qualified academic staff, University of Oxford is one of the most favored study destinations for students around the world.

This university offers degree programs in the following fields of study: Humanities, Medical Sciences, Social Sciences and Mathematical, Physical and Life Sciences.

<u>Cambridge University</u> is one of the oldest in the English-speaking world and one of the finest universities in the UK. It has been working in Britain since 1209. The university offers a large variety of courses and professional academic staff. Leading experts of the world work with students in various fields. Here high-quality education in the best British traditions is available. The educational **establishment** has over 18,000 students **enrolled** in its degree programs. This university has a reputation for intellectual **achievements** of its students, and has a status of one of the most successful research institutes in Europe and the world. It has a membership in a variety of international

associations.

Cambridge University attracts thousands of international students worldwide as well. In the university curatorship is practiced. Such system allows to achieve high academic results. Studying is as high-tech as possible. Students in the university are given an opportunity to use the most advanced equipment in academic and research activities. The schedule of lessons is individual for each course and group. A typical Cambridge University student day includes academic pursuits, physical activity (sport), creativity and recreation. In addition, circles of theatrical art and music are offered to the attention of students. At the university, students are given an opportunity to play sports. The choice of sports is huge: rugby, horseback riding, rowing, parachuting, yachting, yoga, martial arts, shooting, etc.

This university offers degree programs in the following fields of study: Arts and Humanities, Biological Sciences, Clinical Medicine, Humanities and Social Sciences, Physical Sciences, Technology.

<u>University College London (UCL)</u> is an ideal and **innovative** place to get a degree. It offers some of the best conditions to study in, with modern facilities and equipment. This university gathers ambitious students from all around the world, with more than 13,000 in staff and 42,000 students from 150 different countries. UCL was founded in 1826 and ever since then it has created generations of successful graduates with 29 Nobel Prize laureates among its graduates.

This university was the first educational institution in Britain, which opened the doors for **applicants** of any race and class, religious convictions, s Today UCL is one of the most international universities in the country. More female professors than in other universities in Britain work here. A busy college life is one of the features of the ULC. The university organizes more than 180 **communities** and thematic clubs. The program of extra-curricular activities in the college includes conferences, master classes, trips, entertainment, sports. The schedule for each student group provides theoretical, practical classes, profile **electives**. Students organize leisure activities at their own **discretion**.

This university offers degree programs in the following fields of study: Arts & Humanities, Built Environment, Brain Sciences, Engineering Sciences, Laws, Life Sciences, Mathematical & Physical Sciences, Medical Sciences, Population Health Sciences, Social & Historical Sciences.

London School of Economics and Political Science is the best university for specialists in financial and political science. The school is famous for the high quality of education in public **administration**. It offers applied specialties in finance, economics, social policy. This university employs leading professors from several highly ranked universities. Lectures on political science, government management may read the leaders of many countries. Bill Clinton, David Cameron, Angela Merkel, Tony Blair, Dmitry Medvedev, Nelson Mandela and others were in the conference rooms of the London School.

Today, the London School of Economics and Political Science (LSE) unites 9,000 students from 140 countries. The teaching staff of the university is also multinational. Teachers from 45 countries work here. The LSE has 19 research centres. Scientists and students of the university work in the field of political science, law, economics.

The UK is the perfect example of a **diverse** environment where students get to earn their skills and qualifications It goes without saying that Cambridge and Oxford

universities are the most respected. Nevertheless, the diplomas of other educational centres, such as Imperial College London, The University of Edinburgh, The University of Manchester and others, create a competitive advantage when applying for a job.

### 4. Find equivalents to the following Russian word combinations in the text.

основа стандартов высшего образования среди множества других преимуществ преданность качеству образования в области техники и медицины на вершине крупнейших мировых рейтингов членство в различных международных ассоциациях добиться высоких академических результатов поколения успешных выпускников программа внеклассных мероприятий по собственному усмотрению прикладные специальности в области финансов из нескольких высокорейтинговых университетов Это само собой разумеется конкурентное преимущество

5. Look at the names of some disciplines studied at English universities. Match the Russian equivalents with them.

Humanities	Гуманитарные и социальные науки
Medical Sciences	Клиническая медицина
Social Sciences	Социальные науки
Mathematical, Physical and Life Sciences	Физика
Arts and Humanities	Технология
Biological Sciences	Антропогенная среда
Clinical Medicine	Законодательство
Humanities and Social Sciences	Математика, физика и ест. науки
Physical Sciences	Технические науки
Technology	Социально-исторические науки
Built Environment	Медицина
Engineering Sciences	Естественные науки
Laws	Наука о здоровье населения
Life Sciences	Искусство и гуманитарные науки
Population Health Sciences	Гуманитарные науки
Social and Historical Sciences	Биология

# 6. Complete the sentences with correct prepositions.

1. English universities are known	_ their numerous advantages.
2. Thousands of courses are available	students.
3. The educational system is based	_ supervision and mentoring.
4. The schedule depends program	and course.
5 addition, circles of theatrical and	rt and music are offered.
6. UCL was founded 1826.	
7. Students organize leisure activities	their own discretion.
8. The school is famous the high	quality of education.

- 9. The leaders of many countries may read lectures \_\_\_\_\_ political science and government management.
- 10. It goes \_\_\_\_ saying that Cambridge and Oxford universities are the most respected.

#### 7. Underline the correct alternatives.

- 1. English universities *know / are known* all over the world.
- 2. Cambridge University was working / has been working in Britain since 1209.
- 3. Students give / are given an opportunity to use the most advanced equipment.
- 4. University College London was founded / founded in 1826.
- 5. Over 18,000 students enrolled / are enrolled in the degree programs.
- 6. Students *are chosen / choose* the type of educational process.
- 7. UCL was opened / opened the doors for applicants of any race and class.
- 8. Oxford University was opened / opened in 1096.
- 9. This university is offered /offers a number of graduate degree programs.
- 10. The schedule *provides / is provided* theoretical and practical classes.

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

ora on the righ	· C•					
1) English	universities	are	known	for	their	NUMBER
a	dvantages.					
2) They open	their doors for	over a	million _			NATION
students from a	ll over the world.					
3) The maximu	um attention is pa	aid to th	ne personal		of	PREPARE
each student.						
4) A lot of	students are get	ting the	eir		at this	QUALIFY
university.						
5) The university offers a large of courses.						VARY
6) This educational has a reputation for its quality of						ESTABLISH
education.						
7) Cambridge University is one of the most						SUCCESS
research institutes in Europe.						
8) The intellect	ual	of its	students are	rated l	nighly.	ACHIEVE
9)Circles of	art	are offe	ered to the st	udents		THEATER
10) It offers the	best conditions w	ith mod	lern			EQUIP

### 9. Make a short summery of the text. Do it according to the following plan:

- 1. The title of the text is ....
- 2. The text is devoted to ....
- 3. Oxford University is known as ....
- 4. Cambridge University offers ....
- 5. University College London was the first educational institution ....
- 6. London School of Economics and Political Sciences is the best university for....
- 7. The main idea of the text is ....

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### 2.1.3. THE REPUBLIC OF BELARUS IN THE MODERN WORLD

### THE BELARUSIAN CHARACTER

### 1. Read and translate the text and do the following tasks.

The formation of the modern national character of Belarusians was influenced by various historical and geographical factors and one of them is specific natural and climatic conditions of Belarus, which are characterized by many kilometers of forests, swamps, isolation of settlements, etc.

Geographically Belarus is located in the center of Europe and this feature played a cruel joke with the Belarusians during the Middle Ages. Neighbouring countries often fought with each other, and at that time Belarus was turning into a "staging post" for them. But the Belarusians managed to achieve peace with small sacrifices. After centuries, all this has transformed into a national trait: a Belarusian is able to come to an agreement with anyone and about anything. It is not for nothing that the national anthem begins with the words: "We, Belarusians, are peaceful people".

One of the characteristic features of Belarusians, which is noted by all foreigners, is endless kindness. The Belarusian will lay the table for you (even if he has no money), will always help you for "thank you" (although he will not refuse to help in return) and is ready to "give the last shirt" if you really ask. It doesn't matter what colour your skin is, what god you believe in and where you come from. You will be accepted as you are. Here, in Belarus you can easily find a cheerful company of Belarusian, African American and Asian among the students. Orthodox Church, Catholic Church and Synagogue can peacefully stand on the same square (as, for example, in Grodno).

Belarusians are the most hardworking people in Europe. This is not surprising because since childhood, young Belarusians have been cultivating responsibility and accuracy in their work. Belarusians, in general, are not prone to laziness and the desire to get as much as possible without making any effort.

Despite many difficulties, the majority of Belarusians continue to love and value their country. This is proved by a large - scale study, as a result of which 79% of respondents aged 18 to 70 said they are proud of Belarus and their nationality.

Belarusian cities are European - style clean and well-groomed. And this is typical not only for Minsk or Brest, where there are many tourists, but also for the towns. The secret here is not in the special infrastructure of cities, but in the fact that Belarusians are prone to cleanliness. For example, in many courtyards of blocks of flats, residents are independently engaged in the improvement of the surrounding territory and planting beautiful trees and flowers.

The Belarusians always remain faithful to high moral values and good traditions: Kolyady, Radonitsa, Kupala, Dozhinki and etc.

All these are unique Belarusian holidays that Belarusians carried through the centuries into the 21st century.

As for the language, there is a stereotype that the Belarusians have completely abandoned their native language and you can only hear it in the Belarusian language lessons at school. This is not entirely true: of course, in the region centres Belarusians often use Russian for communication, but in small towns a huge number of people continue to speak either exclusively Belarusian or its dialects.

Let us see what has been influencing the formation of the Belarusian national character. We'll start with the natural and climatic conditions.

The climate in the republic is moderately continental, the breathing of the Baltic sea is constantly felt here. We have no frosts or high temperature jumps in the summertime. Sharp contrasts outside, inside and in the souls are not typical for Belarus.

Our rivers are flat, calm and not very deep. They are homely and dear. Belorussian's natural scenery is wide, lonely plains covered with hills, and many lakes and forests. The Belarusian character has no somberness and tense readiness for unexpected dangers. The nature of Belarus does not know storms. Therefore, the Belarusians are trustful and optimistic.

Belarus is a country of developed industry, agriculture, science and culture. Belarusian industry produces trucks and tractors, dump trucks, refrigerators, TV sets and dairy products. Also Belarusians produce soil, sand or clay that is why they are patient and hardworking. We must be able of doing much. Diligence and universality help us to survive. Moreover, the Belarusians are undemanding and modest. To a certain degree they are accustomed to poverty.

The advantageous geographical position – on the crossroads from east to west and from north to south – more than once turned into disadvantage. Belarus was the arena of many wars, invasions and aggressions. But so much international contacts influenced the most distinctive features of the Belarusian national character – tolerance and hospitality. Belarusians can hardly be named fatalists, but if there is violence used against them, they have no choice than to reach for a weapon to defend themselves. History proves it too well.

# 2. Are the sentences true or false according to the text?

- 1. The formation of the modern national character of Belarusians was influenced by various historical and geographical factors.
- 2. Geographically Belarus is located in the West of Europe and this feature played a cruel joke with the Belarusians during the Middle Ages.
- 3. One of the characteristic features of Belarusians, which is noted by all foreigners, is endless laziness.
- 4. Orthodox Church, Catholic Church and Synagogue can peacefully stand on the same square.
- 5. Belarusians, in general, are prone to laziness and the desire to get as much as possible without making any effort.
- 6. Despite many difficulties, the majority of Belarusians continue to love and value their country.
- 7. The Belarusians always remain faithful to high moral values and good traditions.
- 8. As for the language, there is a stereotype that the Belarusians have completely abandoned their native language and you can only hear it in the Belarusian language lessons at school.

# 3. Read the text and say in 2-5 sentences what it is about.

Belarusian customs and traditions

Belarus has deep historical roots in the past that's why its customs and traditions often have a fascinating history. The most ancient Belarusian traditions and holidays can be classified according to four seasons of the year: spring, summer, autumn and

winter.

In ancient times the arrival of spring reassured mankind. It was a sign that life would return to the land, crops would grow and existence was assured. Belarus has a remarkable range of spring-time celebrations, for example Calling of Spring. This holiday dates back to the pagan times.

One of the greatest Christian holidays in Belarus has always been Easter Sunday. There are two Easter holidays in Belarus: the Roman Catholic and the Russian Orthodox ones with painted eggs and special pies.

The summer festivities start in July beginning with the greatest holiday Kupalle. The essential part of this celebration is the great fire. The oiled wooden wheel is set on fire to symbolize the sun. According to the belief this fire has a purifying power. Young couples hand in hand must jump it over. One of the main traditions of Kupalle is search for the mythic paparats-kvetka (fern flower). Those, who find it, will enjoy good luck for the whole year and their wishes will come true

Autumn has its own holidays. They are traditionally connected with the end of the harvesting time. In ancient times it has always been the wedding season. That's why so many traditions and customs are connected with marriage, for example match-making, bride-show, wedding itself, special songs, games etc.

In late autumn we have Dziady. It is a day for commemoration of the dead relatives. The special ritual food is cooked for Dziady dinner. According to the tradition part of the food and drink is left in a special plate and glass for the dead. At this day families are going to the cemeteries to take care of the graves.

The winter solstice used to be a time for meditation on the year gone by and of hope for the year to come. That's why people asked the sun to come back, they sang songs to honor it. Thus the Kaliady holiday appeared, which later became the integral part of Christmas, the greatest holiday in the year.

New Year is widely celebrated all over the country. Preparations to this holiday start a couple of weeks before. The towns and cities of Belarus put on holiday attire; illumination, New Year trees in the squares and New Year fairs add to the holiday mood. The culmination of the festivity is the December 31— January 1 night, when various concerts and open-air merrymaking take place. January 1 is an official holiday. The Belarusian people are proud of the country's past and its traditional culture.

### 4. Answer the questions:

- •What are the spring-time celebrations?
- What are the greatest Christian holidays in Belarus?
- •What can you say about Kupalle?

# AT THE CROSSROADS OF EUROPE. WELCOME TO BELARUS.

# 1. 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?

# 2. Read the following words and learn their meaning.

sovereign	суверенный
to border on (with)	граничить с
to occupy	занимать
to stretch for	простираться
terrain	местность
coniferous	хвойный
meadow	луг
rare	редкий
reserve	заповедник
peat	торф
potassium	калий
gravel	гравий
clay	глина
competitive	конкурентный
favorable	благоприятный
flax	лён
livestock	домашний скот
conduct	вести (торговлю)
expenditure	расход, потребление
cooperation	сотрудничество
extensive	обширный
highway	автомагистраль, шоссе
	to border on (with) to occupy to stretch for terrain coniferous meadow rare reserve peat potassium gravel clay competitive favorable flax livestock conduct expenditure cooperation extensive

### 3. 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

пошлина

- 1) a city which is the centre of a country or other politicalarea
- 2) to form or make something
- 3) containing extremely smalldrops of water in the air
- 4) having little or no height
- 5) plants and animals.

toll

23)

- 6) relating to the making of laws
- 7) a layer that has formed under the ground, especially over a longperiod
- 8) a country(a person, a company) that provides particular goods
- 9) best, most important, or most successful
- 10) to sendgoods to another country for sale
- 11) a largesystem consisting of many similar parts that are connected together
- 12) a particular way or direction between places

# 4. 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.

#### 5. Fill in the table below.

J. Thi in the table below.	
Official name	The Republic of Belarus
Area	
Administrative centres	
Capital	
Official languages	
Population	
Ethnic groups	

Climate	
Natural resources	
International relationships	
System of government	

### 6. Find equivalents to the following Russian word combinations in the text.

суверенное государство

состоять из шести регионов (областей)

умеренный континентальный климат

редкие виды животных и растений

уникальный туристический центр

судоходный канал

природные ресурсы

месторождения угля

экономический потенциал

производить конкурентоспособные товары

животноводство

промышленное сырьё

платные дороги

достичь политические цели

указы президента

# 7. 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

	8. Complete	the sentences	with	correct	prepositions.	<b>Translate</b>	the s	entences
into	Russian.							

a) The Republic of Belarus borders Russia, Poland, Ukraine, La	tvia and
Lithuania.	
b) Modern Belarus stretches 650 km from east to west and	560 km
from north to south.	
c) The Republic of Belarus consists six regions.	
d) Minsk is located the centre of the country.	
e) About one third of the territory is covered forests.	

f) Belarus is inhabited hundreds of rare species of animals and plants.
g) Peat is the first place among energy resources.
h) Belarusians participate leading international economic forums.
i) There is a positive dynamics in cooperation the traditional partners in
Latin America.
j) The major railroad in Belarus was built 1860s.
k) Navigation routes go the Dnepr-Bug Canal, the rivers Sozh, Berezina,
Dnepr, Pripyat, Neman and others.
l) Participation the international organizations enables Belarus to
contribute the development of the country.
m) The executive branch is represented the Council of Ministers.
9. 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?
10. 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

# 11. 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 Ukraine 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 Reublics, which included the major part of the former Russian Empire. On August 1991 Belarus declared its independence.

### THE REPUBLIC I LIVE IN

### 1. Pronounce the following words correctly and learn their meaning:

- 1. divide [di'vaid] делить
- 2. include [in'klu:d] включать
- 3. promote [prə'məut] продвигать
- 4. humidity [hju'miditi] влажность
- 5. coniferous [kəu'nifərəs] хвойный
- 6. rare [rɛə] редкий
- 7. peat [pi:t] торф
- 8. gravel ['grævəl] гравий
- 9. clay [klei] глина
- 10. survey [sə:vei] обследование
- 11. recent ['ri:snt] недавний
- 12. contribute [kən'tribjut] способствовать
- 13. output ['autput] продукция
- 14. account [ə'kaunt]— составлять
- 15. crop [kr**ɔ**p] c/х культура
- 16. barley ['ba:li] ячмень
- 17. rye [rai] рожь
- 18. flax [flæks] лён
- 19. livestock [ˈlaivstɔk] домашний скот
- 20. expenditure [iks'pendit∫ə] расход
- 21. conduct [kən'd^kt] вести
- 22. connect [kə'nekt] связывать
- 23. serve [sə:v] служить
- 24. create [kri'eit] создавать
- 25. legislature ['led3isleit∫ə] законодательная власть
- 26. judicial [dʒu'di∫əl] судебный

- 27. protect [prə'tekt] защищать
- 28. enormous [i'n**ɔ**:məs] громадный
- 29. devastation [devəs 'tei∫ən] опустошение
- 30. rapid ['ræpid] быстрый
- 31. ancient ['eɪn∫ənt] –старинный, древний

#### 2. Read the text.

### The Republic I live In

The Republic of Belarus is a country in eastern Europe, bordered in the north and east by Russia, in the south by the Ukraine, in the west by Poland, and in the northwest by the Baltic republics of Lithuania and Latvia. The capital and largest city is Minsk, located in the centre of the country.

The total area of Belarus is 207 600 sq km. Belarus is divided administratively into six provinces, or oblasts, which have the same names as their largest cities: Minsk, Brest, Gomel, Grodno, Mogilev, and Vitebsk.

The population of Belarus is over 9.5 mln. Nearly 80 percent of its people are ethnic Belarusians. Russians make up 12 percent. Smaller groups include Poles and Ukrainians. About two-thirds of Belarus people live in urban centres. The official state languages are Belarusian and Russian. In the early 1900's, two Belarusian poets, Yanka Kupala and Yakub Kolas, helped to promote the use of the Belarusian language in literature. Formerly, most literary works were written in Russian or Polish. About 215 daily newspapers are published in Belarus, 130 in Belarusian. Most Belarusians finish secondary school, and many receive higher education. There are a lot of universities in Belarus. The Belarusian State University in Minsk is the largest one.

Belarus has a temperate continental climate, with cool temperatures and high humidity. Belarus has a generally flat terrain with many forests, lakes, and marshes. There are hundreds of rivers and lakes in the country, the largest of which are the river Dnieper and Lake Naroch. About one-third of the country is covered with forests, mostly coniferous and birch. There is a rich variety of wildlife, including such rare animals as the European bison in the primal forest reserve of Byelovezhskaya Pushcha.

Belarus was long thought to be poor in minerals, its natural resources limited to peat, gravel, sands, and clays. Recent surveys, however, have uncovered major deposits of coal, oil, and potassium salts.

Belarus has a well-developed economy. Manufacturing contributes most of the country's industrial output. The most important manufactured products are tractors, transport vehicles, trucks, agricultural machinery, metal-cutting machines, as well as consumer goods such as motorcycles and bicycles, clocks and watches, refrigerators, television sets, and others.

Agriculture accounts for about a fourth of Belarus' economic output. The principal crops are potatoes, barley, rye, flax and sugar beet. Nearly 60 percent of the country's total land area is cultivated. Livestock (cattle, hogs, sheep, and goats) accounts for more than half the value of agricultural output in Belarus.

Belarus exports transport equipment, machinery, chemicals, and foodstuff. The major Belarusian exports include tractors to Australia, Canada, New Zealand, and the United States. Imports include fuel, natural gas, industrial raw materials, textiles, and sugar. Fuel is Belarus' largest import expenditure. Russia, which supplies most of the country's fuel imports, is the most important trading partner. Belarus also conducts trade

with the Ukraine, Germany, Poland, Lithuania and other countries.

Belarus has an extensive transportation system, including railroad and highway networks connecting its cities with other major European cities. The major railroad, which was built in the 1860s'to connect Moscow and Warsaw, runs through Belarus via Minsk and Brest. The best-quality road in Belarus is that which links Moscow with Warsaw. Buses provide most of the transportation within cities.

Belarus has several international airports, the largest of which is located about 50 km east of Minsk: The airport in Minsk serves airlines from Germany, Austria, Poland, Scandinavia, and other countries.

The Dnieper-Bug Canal and other canals improve water transportation by linking many of the rivers with ports on the Baltic and Black seas.

In 1945, Belarus became a founding member of the United Nations. Now Belarus is a member of over 60 international organizations, most notably the United Nations, the United Nations Educational, Scientific, and Cultural Organization (UNESCO), and the World Health Organization. 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 is a presidential republic. Under the constitution the president is the head of the state of Belarus and directs domestic and foreign policy. The president creates the Council of Ministers, whose chairman is the country's prime minister. The legislature is a bicameral National Assembly. The judicial system of Belarus consists of three high courts: the Supreme Court, the Supreme Economic Court, and the Constitutional Court. The latter court is charged with protecting the constitution, and its decisions are not subjected to appeal. It has the power to review the constitutionality of presidential edicts and the regulatory decisions of the other two high courts.

The name Belarus is derived from the words Belaya Rus' (White Russia). The Belarusians trace their history to Kievan Rus, a state founded by East Slavs in the 800's, Belarus made up the northwestern part of Kievan Rus. Belarus became part of Lithuania in the 1300's. It passed to Poland in the 1500's and to Russia in the late 1700's

Belarus as a sovereign state was established in 1919. In 1922 the Belarusian Soviet Socialist Republic became one of the four founding republics of the Union of Soviet Socialist Republics. In August 1991 Belarus declared its independence.

Nazi Germany occupied Belarus from 1941 to 1944, during World War II. By the summer of 1942 the republic became the location of an extensive partisan movement, which played a major role in undermining the Nazi regime. In 1944 the Soviet Red Army drove out Nazi forces.

As a principal theatre of World War II, Belarus suffered enormous devastation and lost one quarter of its population. Minsk was almost entirely destroyed.

Postwar reconstruction was followed by a period of considerable economic development and rapid industrialization. In the postwar years, Belarus became the major center for the production of tractors and automobiles and an important base for chemicals and other products. Concurrently, the postwar years were marked by rapid urbanization. Minsk developed as the major center of economic, cultural, and political life and the largest urban center with a quarter of the republic's urban residents.

## 3. Find one synonym to the first word in each row.

1.Rare - unusual - rapid - total

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2.Connect – promote – state – join
3.Serve – receive – work for – cover
4.Rapid – rely – quick – quality
5.Notably – nearly – remarkably – domestic
4. Complete the following sentences.  • Belarus is a country in  • The total area of Belarus is  • Belarus is divided administratively into  • Belarus has a  • Belarus was long thought to be  • The most important manufacture products are  • Belarus exports  • In 1945, Belarus became  • Belarus is a  Possible answers: eastern Europe; six provinces or oblasts; 207 600 sq. km.; temperate continental climate; poor in minerals; well-developed economy; machinery, foodstuff; machinery, transport equipment; tractors, trucks, agricultural machinery; a founding member of the U.N.; presidential republic.
<ul> <li>5. Insert the missed parts of the sentences</li> <li>Belarus became of the U.N.</li> <li>Under the constitution the president is of the state.</li> <li>Belarus as was established in 1919.</li> <li>Nazi Germany occupied Belarus during World War II</li> <li>By the summer of 1942 the republic became of an extensive</li> </ul>
partisan movement.  In 1944 the Soviet Union Red Army Nazi Forces.  Postwar reconstruction by a period of considerable economic development.  In the postwar years, Belarus became for the production of tractors and automobiles.  The postwar years by rapid urbanization.  Minsk developed as of economic, cultural and political life. Possible answers: the head; a founding member; the location; a sovereign state; from 1941 to 1944; drove out; was followed; the major centre; were marked; the major centre.

# **6. Answer the following questions:**

- Where is the Republic of Belarus situated?
- What is the territory of the Republic?
- How is Belarus divided administratively?

- What is the population of the country?
- What is the climate of Belarus?
- What can you say about the natural resources in the Republic?
- Is the economy of Belarus well-developed?
- What can you say about agriculture?
- Belarus exports various goods, doesn't it?
- Is the transportation system in Belarus extensive?
- What international organizations does Belarus participate in?
- What can you say about the Republic's state system?
- What is the history of our country?
- Did Belarus suffer enormous devastation during World War II?
- Postwar reconstruction was followed by a period of considerable economic development, wasn't it?

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

### Example:

- Is the total area of Belarus 207,600 sq km?
- What countries does Belarus border with?
- Is Belarus divided into six or four provinces?
- Who promoted the use of the Belarusian language in literature?
- About one-third of the country is covered with forests, isn't it?
- The geographical position of Belarus.
- The nature and resources of the republic.
- Agriculture and industry.
- Export and transportation system.
- The postwar period.

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

A man should know something of his own country, too, before he goes abroad (Laurence Terne, Irish-born British writer).

Ask not what your country can do for you - ask what you can do for your country (John Fitzgerald Kennedy, US statesman, thirty-fifth President of the USA).

It is a sweet and seemly thing to die for one's country (Horace, Roman poet).

## 9. Speak about Belarus with your groupmate in the form of a dialogue.

### MY NATIVE CITY BREST. BREST: REGIONAL CENTRE

### 1. Before you read the text, discuss 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.

## 2. 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	пеанизания

implementation 16) реализация advantageous 17) выгодный location 18) расположение

прочный, длительный durable 19)

20) consulate консульство

#### 3. 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

## 4. Read the text. Use the dictionary to look up unfamiliar words.

Brest: Regional Centre

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.

### 5. Find equivalents to the following Russian word combinations in the text.

международная автомагистраль пункт пересечения границы выгодное расположение право автономного управления независимая страна промышленные предприятия качественные экономические преобразования перспективные инвестиционные проекты выгодное географическое положение

хорошая основа для прогресса

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

uve sentences with ea	ive 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					

7. 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.

life.	10) The location of the city is a good	for progress in all spheres of
mc.	11) The Russian Federation, Ukraine and th	ne Republic of Poland have their
	in Brest.	

8. 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	he	of Brest.	FOUND
2) People called their	Berestye from	the word	SETTLE
"beresta".	-		
3) The location of the	city facilitated	economic	<b>FAVOUR</b>
development.			
4) Finally the countries reached an			AGREE
5) Brest is part of the	country of Bel	arus.	DEPEND
6) The "Brest" FEZ is a territory of gr	reat		POSSIBLE
7) There is very little	between the tho	countries.	<b>OPERATE</b>
8) Great changes have	taken place in the	economy of	QUALITY
the country.	_		
9) The company has suffered from ba	.d		MANAGE
10) The best thing about the	of th	e city is its	LOCATE
proximity to the border crossing.			

## 9. 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?

### PLACES TO VISIT IN BREST

## Read the text. Make a short summary.

The Brest Fortress over the Bug has become a symbol of the eternal glory of the Sov1tress. 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, Mikolaj "the Black" Radziwill 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 openair 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.

#### **BELARUSIAN ECONOMY**

### 1. 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 themajor 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.

#### 2. 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.
- 2) A metal or paper medium of exchange that is in current use in a particular country.
  - 3) Something expended, such as time or money.

- 4) Goods or services sold to a foreign country or countries.
- 5) Land used or suitable for farming.
- 6) Goods or services that are bought from foreign countries.
- 7) Organized economic activity concerned with manufacture, extraction and processing of raw materials, or construction.
- 8) 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.
- 9) Cattle, horses, poultry, and similar animals kept for domestic use but not as pets, esp. on a farm or ranch.
  - 10) An area of grassland, often used for hay or for grazing of animals.
  - 11) The act of production or manufacture.
  - 12) An ally or companion.
- 13) Land covered with grass or herbage and grazed by or suitable for grazing by livestock.
- 14) 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.
  - 16) A large self-service store retailing food and household supplies.
  - 17) An area of high or relatively high ground.
- 18) The total number of workers employed by a company on a specific job, project, etc.

## 3. 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

## 4. Group the words that follow into six antonymous groups:

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

# 5. 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 ... .

# 6. 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.

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# 2.1.4. THE SOCIO-POLITICAL PORTRAIT OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

## **GREAT BRITAIN**

# 1. 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.

## 2. Read the following words and learn their meaning.

	cua the following words	and real in their incuming
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)beverageнапиток21)insuranceстрахование

22) stockbroking биржевое маклерство

23)consultancyконсалтинг24)livestockдомашний скот25)poultryдомашняя птица26)to damageнаносить ущерб

#### 3. 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

## 4. Read the text. Use the dictionary to look up unfamiliar words.

The UK

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 northeastern 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.

#### 5. Fill in the table below.

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

### 6. Find equivalents to the following Russian word combinations in the text.

- а) уникальная страна
- b) сухопутная граница

- с) расположение недалеко от океана
- d) с обильными осадками круглый год
- е) чрезвычайно изменчивы
- f) нынешний монарх
- g) выполнять различные официальные и представительские обязанности
- h) законодательный орган
- і) обсуждение текущих вопросов
- ј) товарищи по партии
- k) богатые запасы природного газа, угля и атомной энергии
- 1) электрическое и электронное оборудование
- т) экспорт услуг
- n) высокомеханизированный
- о) экологически чистые методы

# 7. 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

8. 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 extreme	ely	CHANGE
6) The British Constitution is based	both on a parliamentary	DECIDE
legislation and law		
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	UNITE
interests and goals better represented.		
10) In, the Kingdom has res	erves of natural gas and	ADD
coal.	-	

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

### 9. 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?

# 10. 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 ENGLISH CHARACTER**

#### 1. Read and translate the text.

Customs and traditions always reflect the character of the nation. It is a common knowledge that every nation has a reputation of this or that kind. Here are some views on the British character or the character of the people who live on the British Isles.

The British people are said to be very polite and well-mannered. "Please, thank you and Excuse me" are used very often in Britain. They are rather conservative and reserved. They are considered to be the world's tea drinkers.

Newspapers and TV form our opinion about different countries. So, what do you imagine when you think of Britain and its people?

What are the British like?

- friendly and polite
- conservative and well-mannered

#### cold and reserved

People who live in Britain are called British. Many people think that 'English' is the same as 'British'. But England is only one of the four nations in the UK. The Scots, Welsh and Northern Irish are British too. They sometimes get angry when they are called 'English'.

There are also millions of British people whose parents first came to Britain in the 1950s and 1960s from the Caribbean, India, Pakistan, Hong Kong and other places. Their homes are mainly in the big English cities like London, Birmingham and Manchester.

Foreigners have many ideas what the English are like. For example, many people say that they are cold and reserved, friendly and well-mannered. You hardly find a person in England who dislikes tea drinking, home cooking and gardening. Their sense of humour is known all over the world.

As for other characteristics which are associated with the English, they are egoism, self-confidence, intolerance of outsiders, independence, love of comfort and a strong belief in private property. Moderation, the avoidance of extremes, the choice of middle way is among the essential qualities of the English.

The English have a strong sense of individualism which can be explained by the uniqueness of the British which was isolated from the European continent for a long time.

One thing never fail to confuse foreigners when they come to Britain and it is British meals. The English are used to certain food and seem never get tired of it. The legendary English breakfast is a hearty meal and a perfect start to a hard working day. This favourite meal consists of bacon, eggs, tomato, fried bread and a variety of sausages. It is usually finished off with slices of toast spread with orange marmalade and a cup of tea with milk (which is traditionally called English tea) or lemon.

The English are very fond of tea. They drink tea four or five times a day, but afternoon tea (which is usually taken at 4 or 5 p.m.) is a special treat.

Dinner is usually at 7 o'clock. It is the most substantial meal of the day and is a very formal one. Many people even wear special clothes for dinner.

The English are said to be a nation of stay-at-homes. Their famous saying "There is no place like home" is known all over the world. When the Englishman is free, he likes to be at home with the company of his wife and children. There is another saying which is typical for the English — "The Englishman's house is his castle."

Undoubtedly, the English are rather conservative. They are proud of their customs and are reluctant to change them in a way. Examples of the English conservatism, such as eating traditional English food or reading a newspaper in the morning are well-known worldwide. On a large scale their conservatism is expressed through the attitude to the monarchy, for an example. The local conservatism can be easily noticed in private traditions observed at schools and societies. So, Britain is the country of traditions and they make a nation special.

Such are the English as we see them.

Englishmen are also known for their devotion to animals and pets. The English firmly believe themselves to be the only nation on the Earth that is really kind to its animals. Contrary to the English, the Scotts, the Welsh and the Irish are somewhat different.

The Scotts are rather kind, but at first glance not as friendly as the English perhaps. They like extremes. Sometimes, they seem to be gloomy and grey, whereas

quite often they are highly coloured and extravagant. The Scotts are probably best known to the world for their traditional costume, the kilt, the short skirt worn by men. It has been the dress of Highlanders since old-times and has been very suitable for going through the wet, moorland country.

Wales is the place where national spirit and national pride are more intense than in any other part of the UK. The Welsh eagerly wear their national dress on festival occasions. The Welsh language is still preserved and taught in schools side by side with English. The Welsh are known for their highly developed artistic sense, as well as a distinguished record in the realm of poetry, singing and drama.

In the Northern Ireland the pace of life is slightly different from the whole of the country. Everything moves slowly, and people are usually not much in a hurry. Most of the Irish are considered to be hard-headed, business-like, self-conscious and very superstitious. Another national feature is that they are desperately afraid of being laughed at.

It is may seem difficult to tell an Englishman from an Irishman or a Scottish person and in this case a surname may help. If their surnames start with 'Mac' or 'Mc' (for example, McDonald), this person is sure to come from Scotland or Ireland. The surnames that start with 'O' (for example, O'Brien) are always Irish.

# 2. Sometimes GB is called a strange island because some customs and manners differ from those accepted in other countries.

Choose what is usual for Britain.

- to queue in a line waiting for a bus
- to greet a friend as many times as you meet him during a day
- to shake hands each time you meet your friends
- to take off shoes as soon as you enter someone's home
- to keep a distance talking to a person (to stay at least an arm's length away)
- to jump the queue waiting for a bus
- to bump into another person

# 3. There are some stereotypes about national characters. Translate the sentences into Russian. Use Complex Subject.

- The Irish are said to be great talkers.
- The Scots are thought to be careful with money.
- The English are considered to be great tea-drinkers.
- The Russians are beleived to be lazy.

Which of the statements are stereotypes?

# 4. Make up sentences about the manners in your country. Use the sentences and the example.

- Take off your shoes entering someone's home.
- Make way for a girl or older people.
- Give up your seat in favour of older people or other people who need it.
- Say "Good appetite" to people that are having a meal.
- Greet your friends each time you meet them during the day.
- Jump the queue waiting for a service.

- 5. Some older people think that today young people are bad-mannered. What makes them think so? What rules do the young people sometimes break? What manners do you consider to be good or bad? Do you always follow these "rules of good behavior"?
- 6. Can you explain the proverb "When in Rome do as Romans do"? Give the equivalent of the proverb in your language.

# WHAT I KNOW OF THE COUNTRY THE LANGUAGE OF WHICH I STUDY

### 1. Pronounce the following words correctly and learn their meaning:

- 1. refer [rɪ'fə:] -относиться, иметь отношение
- 2. оссиру ['ɔkjupaɪ] –занимать
- 3. influence ['influens] –влияние, влиять
- 4. mild [maɪld] –мягкий
- 5. refresh [rɪ'freʃ] –освежать
- 6. explorer [iks'plɔ:rə] исследователь
- 7. monarch ['m⊃nək] монарх
- 8. powerful ['pauəful] –сильный
- 9. division [dɪ'vɪЗən] –деление
- 10. delay [dɪ'leɪ] откладывать, задерживать
- 11. defeat [dɪˈfi:t] –отменять
- 12. support [sə'pɔ:t] –поддерживать
- 13. emerge [ı'mə:dʒ] –появляться
- 14. appoint [ə'pɔɪnt] –назначать
- 15. pick [pik] –выбирать
- 16. oppose [ə'pəuz] выступать против
- 17. fellow ['feləu] –товарищ
- 18. salary ['sæləri] –жалованье, оклад
- 19. criticize ['kritisaiz] –критиковать
- 20. survive [sə'vaɪv] –пережить, уцелеть
- 21. resource [rɪ'sɔ:s] ресурсы, возможность
- 22. harvester ['ha:vistə] –уборочная машина
- 23. drillingmachine ['drɪlɪ¬] [mə'ʃi:n] –сверлильный станок
- 24. householdappliances [haushəuld] [ə'plaɪənsız] –бытовая техника
- 25. remain [rɪ'meɪn] –оставаться
- 26. join [dʒ⊃ın] присоединяться

#### 2. 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 live 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 thenorth-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 labor 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 factBritain 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 themembers of the European Community, which the United Kingdom joined in 1973. Other trade partners include Canada, Ireland, Japan, Norway, Saudi Arabia, Sweden and Switzerland.

#### 3. Find one synonym to the first word in each row.

powerful— influence – strong – refresh
 delay – postpone – occupy – refer
 support – defeat –mild – help
 emerge – leave – appear – appoint
 pick – join – take – oppose
 salary – fellow – explorer – payment
 resource – wealth – harvester – division

## 4. 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 liv d) higher in rank,	
4. plentiful – 5. rapid –	e) In large quanti	
6. senior –	, ,	ning with great speed
7. legislature –	g) be still present	
Example: The country	y is often said to l	Pay attention to the Infinitive.  have an unwritten constitution. Yacro
говорят, что в стране нет к	•	
		every five years. not defeat, any bill that Commons is
determined to pass.	ma ministar niales a	special group of about 20 ministers to
make up the Cabinet.	me minister picks a	special group of about 20 ministers to
-	ven in writing and	so the country is often said to have ar
unwritten constitution.	ven in while, and	be the country is creat bala to have an
5. His duty is to inform	n everybody immedi	ately.
•	•	the government in power and standing
ready to set up a new govern		
7. Britain can survive	only by manufacturi	ng and trading.
6. Complete the follow		
1. The United Kingdon	m is a country in	
2. The U.K. occupies a	an area of over	·
3. The U.K. covers mo	ost of an island group	called
	nsist of two large isla	ands –
5. The U.K. has a		
7. The LLV has a	oring	
8 The country must in	 nnort	
9 A general election r	nust be held at least	·
10. Many British farm	ers practice	•
Possible answers: nor	rth-western Europe;	244 000 sq km; plentiful rain; mild
	ritish Isles; Great B	critain and Ireland; a third of its food
7. Insert the missed p	oarts of the sentence	es:
1. Great Britain covers	s most of an	called the British Isles.
2. The U.K. has	throu	ghout the year in the 1700s. ministers actually the
3. The British started t	he	in the 1700s.
	r politicians called	ministers actually the
country.	C .1 IIIZ '	
		ot one, as are the
constitutions of other countri		of the country
6. Parliament makes the 7. The House of Lords	s 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.

Possible answers: Industrial Revolution; rain; island group; manufacturing; prime minister; leader; strongest house; laws; document; governs.

### 8. 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 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?

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

Example: 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.

# 10. What do you think the authors meant by the following statements? Doyou agree or disagree? 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 (ColinMacInnes, British novelist, 1914-76).

## 11. Read the article and say in 2-5 sentences what it is about.

London Celebrates 150 Years of the Tube

On January 9th 1863the London Underground opened for the first time. Now the

Tube is a central part of life in the British capital.

On January 9th, 1863, a steam-powered train left London's Paddington Station. Packed with passengers, it snaked three and a half miles under the soil of London to Farringdon, a station close to the city's financial heartland. Today, the same journey takes place thousands of times every year.

The first half of the 19th Century was a boom period for industrialization and London was changing radically: trade traffic packed the streets, pollution filled the air and the population more than doubled.

Now, as it celebrates its 150th anniversary, the Tube incorporates eleven lines and 270 stations. Some 527 trains each travel 114,500 miles every year, carrying over one billion passengers.

During World War II platforms and stations functioned as makeshift bunkers, where nearly 200,000 slept as bombs rained down on London. By the middle of the Blitz, 2,400 gallons of tea and cocoa were served underground every nightand washrooms, libraries and 22,000 bunk beds had been installed.

But the Tube is not always regarded with affection. When the Circle Line opened in 1884 the Times newspaper claimed thata journey on it was 'a form of mild torture which no person would undergo if he could conveniently help it'. Todaytemperatures in some parts of the network can reach 32°C - too hot to legally transport animals - and the air quality is so bad that one twenty minute journey is deemed the equivalent of smoking a cigarette.

### 12. Answer the following questions:

- 1. How many lines, stations and trains does the London Underground have now?
- 2. How was the London Underground used during World War II?
- 3. Does the London Underground make a positive contribution to people's quality of life?

# 13. Speak about Great Britain with your groupmate in the form of a dialogue.

### THE UK ECONOMY

## 1. Read the text. Use the dictionary to look up unfamiliar words.

The UK Economy

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.

### 2. Group the following words into nine synonymous groups.

_	C	v	0 1
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	internationalı	mercantile	trading

### 3. 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.

## 4. Group the words that follow into six antonymous groups.

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

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

companies	goods la	and
countries	government p	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).

#### **GREAT BRITAIN: THE LAND OF INSPIRATION**

### Read the text and be ready to discuss it.

Although you may think of Britain as England, it is really three countries in one. Scotland in the North, and Wales in the West, were once separate countries. They have different customs, traditions, languages and, in Scotland's case, different legal and educational systems, all fought over with the English centuries ago, and even now not entirely resolved. Both the Scottish language Gaelic, and particularly Welsh, can still be heard spoken in each country, but nevertheless English is still their main language.

Britain is a deceptively large island and is surrounded by some varied – and very beautiful – coastline, which is worth exploring. Some of the best sandy beaches are found in Devon and Cornwall, where they are washed by shallow Atlantic seas and overlooked by craggy, granite cliffs.

Beyond London, Britain's landscape varies from the soft rolling hills of Southern England, through the flatter expanses of the Midlands, to the dramatic hills and lakes of Northern England, Wales and Scotland.

Historical towns abound in the south. Oxford is a world famous university town dating back to the 12<sup>th</sup> century. Bath is an elegant spa town built over the remains of a similar Roman settlement.

In the hub of England lies an area steeped in heritage, unspoiled countryside, bijou villages and lively cities competing for attention. This is an area of contrasting landscapes and architectural styles, with meandering rivers and picturesque market towns that have changed little with time. Stratford-upon-Avon, the birthplace of William Shakespeare, and Cambridge with its architectural glories and peaceful, unhurried atmosphere, Nottingham, home to the medieval outlaw Robin Hood and his merry men, must all surely merit a visit too.

Some of the country's most inspiring landscapes await you in the north of England. It is a peaceful and pastoral region boasting no less than five National Parks. In Cumbria you will find the Lake District, a stunning combination of mountains, lakes and rushing streams that have inspired countless poets, artists and writers, including Wordsworth and Beatrix Potter, who lived in the area. The spectacular views of the Lake District are a magnet to fell-walkers, climbers and watersports enthusiasts.

<u>Scotland</u> conjures up images of dramatic mountains, lochs, tartan, bagpipes and fine malt whisky. Scotland is all this and much more besides... it's a land rich in royal heritage, with turreted castles, Highland games and historical towns and cities

Landscapes in Scotland are breathtaking in their variety, and have sustained and inspired the unquenchable spirit of Scotland.

The soaring Highlands, with deep glens cradling jewel-like lochs attest to the

drama and beauty of Scotland's landscapes. Southwards lie high moorland, green rolling hills and scattered abbey ruins of the Lowlands. The Scottish Isles – the Hebrides, the Orkneys and the Shetlands – belong to another peaceful and idyllic world.

If mountains, glens and lochs embody the scenery of the Highlands; clans, tartans and bagpipes, porridge and whisky are its essence.

The cities are just as diverse as the landscapes. Edinburgh, the graceful capital, is dominated by an imposing 12<sup>th</sup> century castle. In contrast is the Georgian Edinburgh of attractive squares, tree-lined avenues and elegant shopping thoroughfares (renowned for their classic tartans and cashmere sweaters). The city's rich cultural heritage is highlighted by its spectacular International Festival.

Glasgow is the cultural centre of Scotland and its exuberant festivals are widely acclaimed. Housing some of the finest museums and galleries in Europe, the city is great for culture hunters.

Magnificent scenery with imposing castles on just about every vital hill top, a long and colourful history, a country where its people have maintained a separate identity, an ancient language and a passion for their song and poetry... this, unquestionably, is <u>Wales</u>.

You'll know you are in a different country as soon as you cross the border from England and see the road signs in English and Welsh. The Welsh word for their country is 'Cymru' meaning 'the land of comrades'. And it goes without saying that you'll find the Welsh open, friendly, and good at making people welcome.

The Welsh people with a rich and ancient culture that is instilled in everyday life even today, are famed for their love of poetry and song. The Welsh gift for singing in harmony is praised worldwide and male choirs can be found almost in every village. The best places to hear their song are at festivals of music, the best known of which is the Eisteddfod.

Yet this is not just a "Land of Song", it is also a land of mountains, a heaven for those invigorated by fresh air and open spaces. The rugged and untamed Snowdonia National Park lies to the north, a favourite with walkers and climbers.

Wales is also renowned for its enchanting castles. There are more castles to the square mile than in any other country in the world. These mighty fortresses and romantic ruins are reminders of historic battles. They were built by Welsh princes as a defence from their neighbours, then more castles were constructed by the Normans, and later still the English to keep the fiery Welsh at bay.

Cardiff, the capital of Wales, is a rich tapestry of culture and history. Wherever you walk in this truly cosmopolitan city you will discover art and architecture that echo many ages and ideals. One of the chief glories of the capital is the magnificent Cardiff Castle, started by the Romans, enhanced by the Normans and lavishly adorned more recently.

If you like impressive castles and nature at its most dramatic, have a love of poetry, song... and British team sports like rugby... Wales will not disappoint you.

Hardly 85 miles from top to bottom, Northern Ireland can be explored in just a week. The delightful variety of Northern Ireland's scenery - blue mountains, forest parks, island-studded lakes, and a spectacular coastline - is matched by the country's richly varied cultural inheritance. There are ancient tombs, Celtic crosses, early monasteries, and a range of exciting visitor attractions, which put this heritage into context.

Highlights of the northern coast include the extraordinary volcanic formations of the Giant's Causeway and the oldest licensed whiskey distillery in the world.

Belfast's lively cultural scene, with concert halls, theatres and world-class musical entertainment, draws in visitors from all over. The largest arts festival in the whole of Ireland is held in Belfast each November.

Discover the delightful beauty of Northern Ireland, and you soon realise that this is a country just pretending to be small.

Britain is a land so rich in diversity that it is only the beginning of your journey of discovery. But we do hope that it is a pleasant start - and a taste of things to come!

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# 2.1.5. BUILDING MATERIALS: GENERAL CHARACTERISTICS

### **BUILDING MATERIALS**

### 1. Read and memorize the active vocabulary

clay — глина sand n — песок wood — дерево, древесина, лесоматериалы lumber амер. (syn). timber — пиломатериал, строительный лес rock — горная порода, камень occur — происходить; встречаться process ['prauses] [prau'ses] — процесс; обрабатывать last — продолжаться, длиться lasting — прочный, долговечный, длительный dense — плотный, густой, непроницаемый density — плотность, концентрация mortar — строительный раствор board — доска, пиломатериал, панель, лист plank — планка, доска bend — изгиб, колено; изгибать, гнуть bending — изгибание, сгибание mould (mold) — форма, пресс-форма, опалубка moulding (molding) — формовка, прессование day brick — глиняный кирпич cinder brick — шлаковый кирпич, зольный кирпич cinder block — блок из шлакобетона, шлакоблок aggregate — заполнитель binder — вяжущее, вяжущий материал strength — прочность, сила tensile strength— прочность на растяжение strengthen — укреплять, усиливать reinforced concrete — железобетон bar — арматурный пруток, арматурное железо rebar — арматурный стержень available — наличный, имеющийся в распоряжении availability — наличие

produce — производить, выпускать production — производство, изготовление

### 2. Translate the following sentences into Russian.

- a. The soil was removed down to the natural clay.
- b. Mix it with washed sand.
- c. They got the lumber to build a house.
- d. To build this tunnel we had to cut through the solid rock.
- e. If a body is subjected to external loads, deformations occur in it.
- f. We are using a new process to make concrete.
- g. The construction of the cottage lasted two years.
- h. Stone is the longest lasting building material.
- i. The concrete, when finally placed, must be dense and must closely surround the reinforcement.
- j. A new internal wall surface is created using a very strong, very versatile, high density polyethylene.
  - k. The joints are filled with mortar made of cement and sand.
  - 1. For this board, special types of timbers are carefully chosen.
  - m. While the steel frame is being erected, the wall planks are fixed.
  - n. The wire bends easily.
  - o. Wood can be flexible under loading, keeping strength while bending.
- p. A molten substance, such as metal, or a plastic substance is poured or forced into a mould and allowed to harden.
- q. The moulding of bricks and tiles is only a part of the manufacture of ceramic products.
  - r. Clay bricks can be formed in a moulding.
- s. Compared with other wall materials, cinder bricks have excellent properties and a low price.
  - t. Low-cost bricks include cinder block made mostly with concrete.
- u. The maximum size of the aggregate should not greater than one quarter of the minimum thickness of the finished concrete.
- v. Concrete is a composite building material comprised of aggregate and a binder (cement).
  - w. The purpose of reinforcing is to provide a material with a high tensile strength.
  - x. Reinforced concrete was used in these structural elements.
  - y. This type of concrete is strengthened by bars of steel.
- z. The system for housing provision relied on the centralized production of building materials.

## 3. Match the pairs of antonyms from A and B and translate them.

1. unobtainable	a. strengthen
2. straighten	b. dense
3. dispersed	c. man-made
4. end	d. concern

5. be avoided	e. bend
6. weaken	f. last
7. natural	g. occur
8. indifference	h. available

# 4. Match the noun(s) on the left with a suitable item on the right. Use each item once only.

1. Mortar	a. were put down as a floor.
2. Bricks	b. depends on the material quality.
3. Steel	c. is strengthened by bars.
4. Clay	d. is used to form clay bricks.
5. The boards	e. has high tensile strength.
6. Reinforced concrete	f. is used in adhesive applications.
7. Clay	g. was pressed into steel moulds.
8. A moulding	h. acts as a cementing material,
9. The brickwork strength	i. are put together to form a wall,
10. A binder	j. is plastic.

## 5. Replace the underlined words with the words below.

- a) process b) timber c) due to d) bend e) apart from
- f) aggregate g) produce h) board i) lasting j) concerning
- 1. Thanks to this project, small companies can manufacture affordable building materials locally, using their own resources.
- 2 We have a problem with the air temperature in this room. It is too cold. This is because of inadequate thermal insulation.
- 3. They encouraged the research activities on approaches and methods with regard to building materials and construction technology.
  - 4. The properties of concrete are directly related to those of its constituents.
- 5. That was a new method to treat cement-based building materials hydrothermally.
- 6. Reinforced concrete comes cheap and will support structures for a long amount of time, but it is considered to be less strong and durable than brick buildings.
- 7. Various building materials and auxiliary building materials can be manufactured from waste glass in an environmentally sound way. Except for light-weight concrete and plaster these are, above all, glass wool mats for purposes of sound and heat insulation.

- 8. Modem western style home is often built with lumber frames and fitted with bricks.
- 9 Wood is used for construction purposes when cut or pressed into lumber, such as planks. 10. They are studying an elastic bend of a beam under load.

## 6. Read and translate the following word combinations.

Construction purpose, stone-like material, concrete construction, steel rods and bars, external surface covering, metal alloy, heat tolerance, polyurethane foam, world wide scale, bridge supports, airfield runway, steel reinforcement, cement layer, metal box-like mould, stiff-clay process, extrusion machine, clay particles, rail trucks, calcium silicate bricks, sand lime bricks, brick shape.

#### 7. Translate the following sentences into Russian.

1. Concrete is strong in its resistance to loads trying to crush it (compression), but much weaker in resisting forces that tend to pull it apart (tension). 2. Bricks were more flame retardant than wood, and cheap to produce. 3. Concrete is preferred to natural rock, which is difficult to extract from the ground and which has to be worked to the required shape. 4. It is important not to use too much water as this will make the concrete weak. 5. Any forces tending to pull the reinforced concrete apart will be resisted by the great strength of the steel bars.

#### 8. Answer these questions.

- a) What naturally occurring and man-made building materials do you know?
- b) What is the longest lasting building material?
- c) What types of bricks do you know? What are the advantages of bricks?
- d) What materials are bricks made from?
- e) Why is concrete the predominant building material in this modem age?
- f) What materials is concrete made from?
- g) What type of buildings is metal used for?
- h) What did glass as a building material provide people with?
- i) What do you know about the use of plastics for construction purposes?
- j) What insulation materials are used in buildings?
- k) Are there any environmental problems of using and producing building materials?

## MATERIALS USED IN BUILDING

#### 1. Read the text.

Building material is any material which is used for a construction purpose. Many naturally occurring substances, such as clay, sand, wood and rocks have been used to construct buildings. Apart from naturally occurring materials, many man-made products are in use, some more and some less synthetic. The use of building materials is trades, such as carpentry,

Building materials can be categorized into two sources, natural and synthetic. Natural building materials are those that are unprocessed or minimally processed by industry (lumber or glass). Synthetic materials are made in industrial settings after husan manipulations (plastics and paints).

Rock is the longest lasting building material available. It is a very dense material so it gives a lot of protection too. Dry-stone walls have been built for as long as humans

have put one store on top of another. Eventually different forms of mortar were used to hold the stones together, cement being the most commonplace now.

Wood is a product of trees and sometimes other fibrous plants used for construction purposes when cut or pressed into lumber and timber, such as boards or planks. Wood can be very flexible under loads, keeping strength while bending, and is incredibly strong when compressed vertically.

A brick is a block made of kiln-fired material, usually clay or shale. Clay bricks are formed in a mould, or in commercial manufacture more frequently by extruding clay through a die and then wire-cutting them to the proper size. Bricks have been used as a building material since the 1700s This was probably due to the fact that it was much more flame retardant than wood, and cheap to produce. Cinder blocks replaced clay bricks in the late 20th century. They are made mostly with concrete oncrete is a composite building material made from the combination of aggregate and a binder. After mixing, the cement hydrates and eventually hardens into a stone-like material. This is the material referred to by the term concrete. For a concrete construction of any size, as concrete has a low tensile strength, it is strengthened using steel rods or bars. This strengthened concrete is called reinforced concrete. Concrete has been the predominant building material in this modern age due to its longevity, formability, and ease of transport.

Metal is used as structural framework for larger buildings such as skyscrapers, or as an external surface covering. There are many types of metals used for building. Steel is a metal alloy whose major component is iron, and is the usual choice for metal structural building materials. It is strong, flexible, and if treated well lasts a long time.

Clear windows have been used since the invention of glass to cover small openings in a building. They provided humans with the ability to both let hight into rooms while at the same time keeping inclement weather outside. Glass which is very brittle is generally made from mixtures of sand and silicates in a very hot fire stove called a kiln. Additives are very often added to the mixture when making to produce glass with different colours or characteristics.

The term plastics covers a range of synthetic or semi-synthetic organic polymerization products. Plastics vary immensely in heat tolerance, hardness, and resiliency. Combined with this adaptability, the general uniformity of composition and lightness of plastics ensures their use in almost all industrial applications today. More recently synthetic polystyrene or polyurethane foam has been used on a limited scale. It is light weight, easily shaped and an excellent insulator. It is usually used as part of a structural insulated panel where the foam is sandwiched between wood or cement.

Nowadays the production of raw materials for building purposesnis on a world wide scale. Environmental concerns are also becoming a major world topic concerning the availability of certain materials, and the extraction of such large quantities needed for the human habitat.

# 2. Find the paragraphs saying about the use and production of bricks and concrete in construction and translate them into Russian.

## 3. Explain the following references.

a) so it gives a lot of protection too.

What does the pronoun if refer to?

b) They are made mostly with concrete.

What does the pronoun they refer to?

c) it is strengthened using steel rods or bars.

What does the pronoun it refer to?

d) It is strong, flexible, and if treated well lasts a long time.

What does the pronoun it refer to?

e) It is light weight, easily shaped and an excellent insulator.

What does the pronoun it refer to?

f) It is usually used as part of a structural insulated panel

What does the pronoun it refer to?

#### **MODERN BUILDING MATERIALS**

#### 1. Read and translate the text.

Some of the most important building materials are: timber, brick, stone, concrete, metal, plastics and glass.

Timber is provided by different kinds of trees. Timbers used for building purposes are divided into two groups called softwoods and hardwoods. Timber is at present not so much used in building construction, as in railway engineering, in mining and in the chemical industry where it provides a number of valuable materials. However, timber is still employed as a building material in the form of boards. For the interior of buildings plywood and veneer serve a number of purposes.

A brick is best described as a "building unit". It may be made of clay by moulding and baking in kilns, of concrete, of mortar or of a composition of sawdust and other materials. In shape it is a rectangular solid and its weight is from 6 V2 to 9 lb. There exists variety of bricks for different purposes: ordinary, hollow or porous, lightweight, multicolor bricks for decorative purposes, etc. Bricks are usually laid in place with the help of mortar. The shape and convenient size of brick enables a man to grip it with an easy confidence and, because of this, brick building has been popular for many hundreds of years. The hand of the average man is large enough to take a brick and he is able to handle more than 500 bricks in an eight-hour working day. It is necessary, therefore, for the "would be" bricklayer to practise handling a brick until he can control it with complete mastery and until he is able to place it into any desired position. The brick may be securely handled by placing the hand over the surface of the upper part of a brick and by placing the thumb centrally down the face of the brick with \*the first joints of the fingers on the opposite face. It is better to protect the thumb and the fingers with leather pads, which also prevent the skin from rough bricks.

Sometimes natural stones such as marble, granite, basalt, limestone and sandstone are used for the construction of dams and foundations. Marble, granite and sandstone are widely used for decorative purposes as well, especially with the public buildings. Natural stone is used for foundations and for the construction of dams. The main varieties of building stone are basalt, granite, marble, sandstone and limestone.

Metals: Aluminium, principally in the form of various alloys, is highly valued for its durability and especially for its light weight, while brass is frequently used for decorative purposes in facing. Steel finds its use in corrugated sheets for roofing, for girders, frames, etc. Various shapes are employed in construction. Plastics are artificial materials used in construction work for a vast number of purposes. Nowadays plastics, which are artificial materials, can be applied to almost every branch of building, from the laying of foundation to the final coat of paint. Synthetic resins are the main raw

material for plastics. Plastics have some good advantages as they are lighter than metals, not subject to corrosion, and they can be easier machined. Besides, they are inflammable, they can take any color and pattern, and they are good electrical insulators. More over, they possess a high resistance to chemical action. A lot of decorative plastics, now available, have brought about a revolution in interior and exterior design. But plastics are used now not only for decoration. These materials are sufficiently rigid to stand on their own without any support. They can be worked with ordinary builders' tools.

Laminate is a strong material manufactured from many layers of paper or textile impregnated with thermosetting resins. This sandwich is then pressed and subjected to heat. Laminate has been developed for both inside and outside use. It resists severe weather conditions for more than ten years without serious deformation. As a structural material it is recommended for exterior work. Being used for surfacing, laminate gives the tough surface.

Foamed glass is a high-porosity heat insulating material, available in block made of fine-ground glass and a frothing agent. Foamed glass is widely used in prefabricated house building, to ensure heat insulation of exterior wall panels, and in industrial construction. Foamed glass has a high mechanical strength, is distinguished by moisture, vapour and gas impermeability. It is non-inflammable, offers resistance to frost, possesses a high sound adsorption, and it is easily sewn and nailed. Structural foamed glass blocks designed to fill ceilings, and for making interior partitions in buildings and rooms, to ensure heat and sound insulation. For insulation mineral wool or cinder wool is often resorted to.

### 2. A few explanations to the text.

- 1. ...the first joints of the fingers первыми фалангами пальцев
- 2.... for a vast number of purposes. —для многих целей
- 3.... and they can be easier machined.—и их легче обработать.

### 3. Key vocabulary / expressions

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consider |kan' sida] — v рассматривать, обсуждать; обдумывать cross-section ['krosakjn]-n поперечное сечение, поперечный разрез, профиль derive (from)—v получать; извлекать; происходить froth [froG] — пена; v пениться handle [hsendl]- v брать руками, держать в руках impermeability — n непроницаемость; герметичность kiln [kiln] —п печь для обжига mortar ['moita]— раствор plywood ['plaiwuid]— фанера resist [ri'zist]—v сопротивляться sawdust ['so:dAst] —n опилки span — n промежуток времени, период времени subject [sab'drjekt]—v (to) подвергать; подчинять tensile ['tensail] —adj растяжимый veneer [vi'nia] —n шпон, фанера
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# 4. Learn to recognize international words. Give Russian equivalents to the following words without a dictionary.

industry ['indastri]
information [infa'meijn]
progress ['prougras]
brilliant ['brilj ant]
metal ['metal]
fact [fekt]
operation [apa'reijn]
focus ['foukas]
emphasis ['emfasiz]
hyperbole [hai'pa:boli]
business ['biznis]
semester [si'mesta]
company ['клтрЭт]
enthusiasmfan' Gjuziazm]

#### 5. Phonetic drill

**5.1.** Read the words keeping in mind different pronounciation of letter c sociology, special, official, financial, ancient, depreciation, process, concept, perception, recipient, licence, medicine

### 5.2. Mind the stress when reading

enumeration, atomic, hydraulic, differentiation, appearance, possible, structure, competitor, equipment, military, deployment, specific, customer, competitive, remember, consistency, character, competition, assistant, pneumatic.

### 6. Wordconstruction (Different ways to construct words)

# 6.1. Translate the following words Keeping in mind their suffixes.

Memorise the words of the same stem con' sider—conside' ration — con' siderable — conside'rate re'late — re'lation — 'relative — 'relatively com' pose —' composite—compo' sition — com' positive tense — tensile — tension

## 6.2. Translate the following words as nouns and as verbs:

handle, span, crack, hand, bank, stress, place, approach, result, rule, view, house, market, study, progress, host, offer.

# 6.3. Translate the given words keeping in mind that

приставка/юл—означает отрицание или отсутствие чего-л.

non-military, non-inflammable, non-aggressive, non-effective, non-productive, non-alcoholic, nonreturnable, nonforgiving, nonefficient.

### 7. Add the missing parts of the sentences from the text

- 1... .for building purposes are divided into two groups called softwoods and hardwoods.
- 2. However, timber is still employed ...
- 3.... ordinary, hollow or porous, lightweight, multicolor bricks for decorative purposes, etc.
- 4. ... they use natural stones such as marble, granite, basalt, limestone and sandstone.
- 5.... while brass is frequently used for decorative purposes in facing.
- 6. These materials are sufficiently rigid to stand...
- 7.... severe weather conditions for more than ten years without serious deformation.

- 8. ...to ensure heat insulation of exterior wall panels, and in industrial construction.
- 9. It is non-inflammable, offers resistance to frost,...

### 8. Find in the text equivalent English phrases to the following Russian

прямоугольное твердое тело держать кирпич с легкой уверенностью восьмичасовой рабочий день шлаковая вата преднапряженный бетон площадь поперечного сечения выдержать напряжение растяжения (растягивающее напряжение)

# 9. Tell the group about any of the building materials. Add your own information.

#### 10. Speaking Practice

# 10.1. Discuss different building materials from the text with your partner finishing the following phrases:

- 1. What you need most of all is...
- 2. Another important thing is...
- 3... .can make a real difference.
- 4.1 think ... is pretty important too.

### 10.2. Combine one word from each section to make at least 8-10 sentences.

I	late	interesting people
don't like	strange	schedules
can't stand	flight	drafts
hate	getting	new experiences
like	losing	problems
look forward to	meeting	sightseeing
enjoy	finding out	plans
love	missing	delays
'd rather		new ideas

#### **ASBESTOS**

#### 1. Read and translate the text.

#### **Asbestos**

Asbestos has been known and used as a textile since the earliest times. The first written evidence of asbestos was recorded by Pliny in the first century A. D. It is told that one of the Emperors of Rome delighted guests by throwing a tablecloth made of asbestos into fire and then removing it unchanged from the flame. A few centuries later Marco Polo told his friends in Italy about a substance he observed in Siberia. He told that it could be woven into attractive textiles, which did not burn even in direct flame.

Asbestos is one of the strangest of all the naturally occurring fibers. It is a rock, which has been subjected to unusual treatment during its formation. Asbestos is the only mineral substance used as a textile fiber in the form it is obtained from natural sources. There are many varieties of asbestos rocks but only chrysotile is widely used for textile products. Chrysotile is mined in many countries of the world. The soft, long, white

fibers of this mineral can be spun into yarn by the usual processes. Pure asbestos being very difficult to spin, a proportion of cotton fiber is usually added to help to bind the asbestos fibers together. The strangest characteristic of asbestos fibers is their resistance to heat and burning. This property determines the ways in which they are used. Early uses for asbestos included such articles as handkerchiefs and table coverings. The Chinese used asbestos to make false sleeves, which could be cleaned by putting them in the fire. All the dirt was burned off, leaving the asbestos clean. We know commercial development of the fiber to have started in the 19th century. Asbestos was used in flameproof clothing of many kinds, for laboratory, industrial and military purposes.

Fabrics made of asbestos have good strength. Today the main applications are those in which non-inflammability is essential such as conveyor belting for hot materials, industrial packings, fireproof clothing, etc. Asbestos is sometimes used with glass fiber in making decorative fabrics for curtains used in hospitals, theatres and other

buildings where the public assembles. Some grades of asbestos are used for electrical windings and insulation.

#### 2. A few explanations to the text.

- 1. ...in the first century A. D. в первом веке нашей эры (лат. anno domini)
- 2. .. .which has been subjected to unusual treatment during its formation.— который подвергся необычному воздействию во время своего образования.

### 3. Key vocabulary / expressions.

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belt [belt]—n пояс dirt —грязь fiber = fibre —n волокно; нить handkerchief —n носовой платок; косынка sleeve [sli:v] — n рукав spin [spin]—v (span, spun) прясть treatment — n обращение; обработка; зд.воздействие уагп —и пряжа, нить
```

# 4. Phonetic drill. Read the words paying attention to the prommciation of the italisized letters.

square, squaw, squirrel, queen, require, quarrel, squeeze, question guarantee, guard, guess, guest, guerilla, guide, guitar

## 5. Find Russian equivalents to the following international words.

Potential, geography, agent, university, ethics, surveyor, underwriter, discounter, marketing, traffic, trainer, interview, economy, profession, regional, period, provider, warrant, spelling, manager, conductor,

#### 6. Word construction

**6.1. Translate the following words keeping in mind their prefix** pre- meaning до..., пред..., заранее...

prehistoric, precaution, preheat, prewar, preamble, prearrange, pre-revolutionary, precondition, pre-date, preface

6.2. Translate the following words keeping in mind their suffix proofmeaning стойкий, сопротивляющийся, непроницаемый flameproof, waterproof, bulletproof, fireproof, weatherproof, hackerproof, lossproof, foolproof, shockproof, ageproof.

That is another way how the same words can be used weatherproof = proof against weather bulletproof = proof against bullets

# 7. Translate the sentences paying attention to different meanings of the verb "to build" (build—built — built)

- 1.1 would not built on that if I were you.
- 2. He is not built that same way.
- 3. They have built in their garden with the wall just recently.
- 4. We need more place and I would like to build a wing on to our house.
- 5. Much work has built up over the past years.

### 8. Find the following words and word combination in text.

огнеупорная одежда, занавес для театра открытое пламя сопротивление жару и горению, невоспламеняемость

#### 9. Match the verbs in column A with those in column B.

A	В
1.to use	происходить
2. to weave	добывать
3. to burn	прясть
4. to occur	использовать
5. to mine	гореть
6. to spin	прясть
7. to start	начинать
8. to add	добавлять
9. to include	включать

#### 10. Complete the sentences.

- 1. Fabrics made of asbestos have...
- 2 one of the Emperors of Rome...
- 3. Early uses for asbestos included such articles...
- 4. All the dirt was burned off, leaving...
- 5. .. .fibers of this mineral can be spun into yarn by the usual processes.

#### 11. Ask questions so that the sentences below could be answers.

- 1. Marco Polo told his friends about the substance that could be woven into attractive textiles.
- 2. Asbestos was used in flameproof clothing of many kinds for different purposes.
- 3. The strangest characteristic of asbestos fibres is their resistance to heat and burning.

#### 12. Find in the text a definition of asbestos and translate it into Russian.

#### **SILICATE INDUSTRY**

#### 1. Read and translate the text.

#### Silicate Industry

Silicate industry is the industry processing the natural compounds of silicon. It embraces the production of cement, glass, and ceramics. The production of ceramic goods is based on the property of clay when mixed with water to form putty, from which various articles can easily be moulded. When these are dried and then for easily moulding baked, that is, ignited at a high temperature, they become hard and retain their shape, no longer being softened by water. In this way clay, mixed water and sand is moulded into bricks, which are then dried and baked. The materials used to make silicate bricks are white sand and slaked lime.

Cement Production. Cement is made from limestone and clay, or from their natural mixture, marls. The materials roasted in cylindrical rotary kilns are charged into a slowly rotating kiln at its upper end and travel, mixing continuously, towards the lower end, while a current of hot gases, the products of the burning of fuel, flows in the opposite direction. During the period of their movement through the kiln the clay and the limestone react chemically, and the material emerging from the kiln in lumps of a caked mass is cement, which is then grounded. When cement is mixed with water, it forms mortar, which hardens, binding various objects, such as bricks or stones, very firmly. It is for this reason that cement is used widely as a binding materials in large-scale construction, including underwater construction. Cement is often mixed with sand or gravel, in which case we get concrete. Concrete has roughly the same coefficient of thermal expansion as iron.

Glass Production. The initial materials for the production of ordinary glass are mainly soda, limestone, and sand. A mixture of these substances is heated in a bath-shaped furnace.

When it cools, the liquid mass of glass does not become hard at once. At first it becomes viscous and readily assumes any shape. This property of glass is used in making various articles out of it. Definite portions of the cooling semiliquid mass are taken from the bath, and these are blown or pressed to make various glassware. By machine methods glass sheets, tubes, etc., can be drawn continuously from the molten mass.

Sand is the chief material used as a fine aggregate. It is required in mortar or concrete for economy and to prevent the excessive cracking. Mortar made without sand would be expensive. The word "sand" is applied to any finely divided material which will not injuriously affect the cement or lime and \*which is not subject to disintegration or decay. Sand is almost the only material which is sufficiently cheap and which can fulfil these requirements.

A mixture of coarse and fine grains is very satisfactory, as it makes a denser and stronger concrete with a less amount of cement than when only fine-grained sand is used. The following sands are used for mortars: pit or quarry sand, river sand and sea sand.

Lime is a calcium oxide. It is used in great quantities for mortar and plaster. Lime (quicklime) is a white solid that reacts violently with water to form calcium hydroxide. It is made by heating limestone in a special kind of furnace called a "kiln". Lime must be stored in a dry place, otherwise it will absorb moisture. Limes may be divided into three distinct classes:

- 1. Rich limes that contain not more than 6 percent of impurities, slake very rapidly, and are entirely dependent on external agents for setting power. These are widely used for interior plasterer's works.
- 2. Poor limes that contain from 15 percent to 30 percent of useless impurities and possess the general properties of rich limes, only to a lesser degree.
- 3. Hydraulic limes that contain certain proportions of impurities, which when calcinated, combine with the lime and endow it with the valuable property of setting under water or without external agents.

Lime is a basic building material extensively used all over the world, but it was not until the later years of the 19th century that a greater appreciation of the fuel-burning problems involved became apparent. Until this time the requirement for lime was largely agricultural and it was produced by farmers or by small builders who used it for making mortar and plaster.

As industrial requirements increased "running" kilns were developed. These were lined with firebrick and charged at regular intervals with stone and fuel. Around the world there are many different types of kilns and variations in lime-burning practice.

#### 2. A few explanations to the text.

- 1. It embraces the production of cement, glass, and ceramics. Она включает производство цемента, стекла и керамики.
  - 2... .does not become hard at once. —.. .не застывает сразу.
- 3.... ,which is not subject to disintegration or decay.—который не подвержен разрушению или загниванию.
- 4. ...on external agents for setting power от внешнего фактора для застывания

# 3. Key vocabulary / expressions

```
bind — v (bound) связывать; скреплять embrace [im' breis]—v включать, охватывать grind —v (ground) размалывать ignite [ig'nait] — v зажигать; загораться; прокаливать impurity — n примесь lump — глыба; комок pit [pit] — n яма; копь; шахта putty —n замазка quarry —и каменоломня, карьер roast —v обжигать; кальцинировать slake — v гасить (известь)
```

# 4. Read the words paying attention to different pronunciation of letter "c". Translate from English into Russian.

crucial, specific, special, sociology, licence, financial, associate, medicine, concept, perception, beneficiary, process, percent, essentially, presidential.

## 5. Word construction. Give antonyms to the following words.

misunderstand, dislike, unlock, nonprofitable, irregular, truthless, dissatisfied, illegal, useless, indifferent, lawless, unskilled, misfortune, nonessential, important, meaningful, displeased, imperfect, unfair, inactive, indefinite.

6. Match the halves of the following questions.

Could you	not smoking, please?
Would you mind	switch off your laptop, please?
Can you tell me	make sure the letter is received?
Would you please	what is the time now, please?
Could I ask you	borrow your mobole?
Is there somewhere I could	to wait for me outside?
	send an e-mail?

#### 7. Find the following words and word combinations in the text.

жидкая масса изделия из стекла природная смесь расплавленная масса связующее вещество цилиндрическая вращающаяся печь нагревание известняка изготовление раствора и штукатурки гашеная известь

#### 8. Complete the sentences with the information from the text.

- 1. A mixture of coarse and fine grains...
- 2 often mixed with sand or gravel...
- 3. The production of ceramic goods is based on the property of clay...
- 4... .is moulded into bricks, which are then dried and baked..
- 5. The following sands are used for mortars:...
- 6. Until this time the requirement for lime was largely agricultural...

# 9. Explain in English the meaning of the following words.

cooling, putty slaked lime, mortar, running kilns

## 10. Group these phrases under the following headings:

- a) Cement Production
- b) Glass Production

to roast in; large-scale construction; ordinary glass; to move through the kiln; building material; bath-shaped furnace; definite portions; cylindrical rotary kilns; to ignite at a temperature; a mixture of substances; cooling semiliquid mass; to press; the molten mass.

## 11. Speak about the glass production.

### **REINFORCED CONCRETE**

## 1. Find the key sentences in all the passages of the text.

Reinforced concrete

Reinforced concrete is a combination of two of the strongest structural materials, concrete and steel. This term is applied to a construction in which steel bars or heavy

steel mesh are properly embeded in concrete. The steel is put in position and concrete is poured around and over it, then tamped in place so that the steel is completely embeded. When the concrete hardens and sets, the resulting material gains great strength. This new structural concrete came into practical application at the turn oUhe 19th century.

The first results of the tests of the reinforced concrete beams were published in 1887. Since that time the development of reinforced concrete work has made great progress. And the reasons of this progress are quite evident. Concrete has poor elastic and tensional properties, but it is rigid, strong in compression, durable, under and above ground and in the presence or absence of air and water, it increases its strength with age, it is fireproof.

Steel has great tensional, compressive and elastic properties, but it is not durable being exposed to moistur-e, it loses its strength with age, or being subjected to high temperature. So, what is the effect of the addition of steel reinforcement to concrete? Steel does not undergo shrinkage or drying but concrete does and therefore the steel acts as a restraining medium in a reinforced concrete member. Shrinkag- causes tensile stresses in the concrete which are balanced by compressive stresses in the steel. For getting the best from reinforced concrete the following consideration should be kept in mind:

- 1. For general use the most suitable proportions of cement and aggregate are: 1 part cement, 2 parts sand and 4 parts of gravel.
- 2. Only fresh water free from organic matter should be used for reinforced work. Sea water is not allowed.
- 3. Homogeneity of the concrete is a very important requirement. Steel constructions with reinforced concrete have become the mostimportant building materials invented in centuries and they have given modern architecture its peculiar features.

### 2. Answer the following questions:

- 1. Is reinforced concrete a combination of two of the strongest structural materials?
- 2. What is the process of making reinforced concrete?
- 3. When did this new structural concrete come into practical application?
- 4. Since when has the development of reinforced concrete work made good progress?
  - 5. Can you name the properties of concrete?
  - 6. Will you say a few words about the properties of steel?
  - 7. Does concrete increase its strength with age?
  - 8. What about steel?
  - 9. 1s it true that steel does not undergo shrinkage or drying but- concrete does?
  - 10. Shrinkage causes tensile stresses in the concrete, doesn't it?
  - 11. Make up sentences using the following words:

to combine - combination; strong - strength - to strengthen; hard - to harden - hardness; .tension - tensional; compression - compressive; durable - durability; to apply - application; to shrink - shrinkage

## 3. What is the English for:

- 1. применять термин;
- 2. заливать бетон;

- 3. набирать прочность;
- 4. быть опубликованным;
- 5. увеличивать, уменьшать прочность;
- 6. подвергаться усадке;
- 7. вызывать растягивающие усилия;
- 8. использовать железобетон

# 4. Complete the sentences using the English equivalents for the Russian words in brackets.

1. The resulting material gains great strength when (он затвердевает). 2. At the turn of the 19th century new structural concrete (стал применяться). 3. Steel has great tensional, compressive and elastic properties but (со временем она теряет прочность). 4. Steel does not undergo shrinkage and therefore it acts (как сдерживающая среда). 5. Shrinkage causes tensile stresses in concrete which are balanced (сжимающими усилиями в стали).

#### 5. a) Write a summary of the text in English.

#### 5. b) Write a review of the recent developments in your field or research.

Бетон - это искусственный материал. Его получают в результате формирования и затвердевания правильно подобранной смеси (вяжущего, заполнителей, воды и, в необходимых случаях, специальных добавок). Вяжущее вещество в бетоне используют вместе с мелкими и крупными заполнителями. В качестве заполнителей применяют самые различные сыпучие материалы (песок, шлак, щебень; гравий, керамзит). Чаще всего для получения бетона употребляют различный по величине заполнитель: от крупных кусков щебня до песчинок. Кроме того, мелкие частицы обеспечивают относительную подвижность крупных частиц, необходимую для лучшей укладываемости бетонной смеси. От плотности и объемной массы зерен заполнителя зависит объемная масса бетона. В зависимости от этих показателей бетоны подразделяются на особо тяжелые, тяжелые (обычные), легкие, особо легкие, особо теплоизоляционные. В тяжелых (предназначенных для биологической защиты от радиоактивных излучений на предприятиях атомной промышленности) бетонах применяют специальные виды заполнителей, которые имеют повышенную объемную массу. Особо тяжелые и тяжелые бетоны применяют как конструктивные материалы, например при сооружении покрытий дорог и аэродромных полей. Конструктивные бетоны предназначены для восприятия нагрузки, возникающей в конструкциях в процессе эксплуатации сооружения.

Сейчас в строительстве широко применяют ячеистые бетоны (пено и газобетон), которые изготовляются только из вяжущего и песка и содержат множество мелких замкнутых воздушных пор (ячеек). В ячеистых бетонах зерна заполнителей заменены воздушными ячейками, это достигается или смешиванием бетонной массы (пенобетон), или применением газообразующих веществ, которые вспучивают бетонную смесь (газобетон). Наличие этих пор уменьшает массу бетона и повышает его способность удерживать тепло. Дерево, металл, пластмасса боятся воды, а бетон, набирая прочность, способен твердеть под водой. Это свойство позволяет возводить из бетона на большой глубине такие сооружения, как фундаменты для маяков, молы, доки, каналы, нефтяные вышки, бассейны, морские причалы. В железобетонные коллекторы и трубы больших

диаметров при необходимости заключают целые реки. Многие годы уложенный бетон продолжает набирать прочность.

#### 6. Change the following into the past tense:

Ready mixed concrete has added significantly to the resources of the concrete industry in Britain. It has helped atchitects, engineers, contractors and the ordinary citizen. Close cooperation among the architect, engineer and contractor during the design is essential to achieve greatest economy. Materials, methods and budgets can be worked out for acceptable treatment of the facade.

#### THE PROPERTIES OF BUILDING MATERIALS

#### 1. Read the text.

Materials that are used for structural purposes should meet several requirements. In most cases it is important that they should be hard, durable, fire-resistant and easily fastened together. The most commonly used materials are steel, concrete, stone, wood and brick. They differ in hardness, durability and fire-resistance. Wood is the most ancient structural material. It is light, cheap and easy to work. But wood has certain disadvantages: it burns and decays. Stone belongs to one of the oldest building materials used by men. It is characteristic of many properties. Ther are mechanical strength, compactness, porosity, sound and heat instilation and fire-resistance.

Bricks were known many thousands of years ago. They are the examples of artificial building materials. Concrete is referred to as one of the most important building materials. Concrete is a mixture of cement, sand, cru':shed stone and water.

Steel has core into general use with the development of industry. Its manufacture requires special equipment and skilled labour. Plastics comblne all the fine characteristics of a building material with good insulating properties. It is no wonder that the architects and engineers have turned to them to add beauty to modern homes and offices.

All building materials are devided into three main groups: 1) main building materials such as rocks and artificial stones, timber and metals. 2) Binding materials such as lime, gypsum and cement 3) Secondary or auxiliary materials which are used for the interiot parts of the buildings.

We use many building materials for bearing structures. Binding materials are used for making artificial stone and for joining different planes. For the interior finish of the building we use secondary materials.

Natural building materials are: stone, sand, lime and timber. Cement, clay products and concrete are examples of artificial building materials.

## 2. Answer the following questions:

- 1. What are the properties of the building materials?
- 2. What are the most commonly used building materials?
- 3. Do building materials differ from each other? 4. What caπ you say about the most ancient building materials?
  - 5. What caπ you say about bricks?
  - 6. Is concrete an artificial or natural building material?
  - 7. Into what groups do we divide building materials?
  - 8. Сап you give an example of a binding material?

- 9. What artificial building materials do you know?
- 10. What natural building materials do you know?

#### **STRENGTH OF MATERIALS**

- 1. What do you know about strength of materials? Read the statements given below and say if they are true or false. If the statements are not true, make the necessary corrections.
- a) The strength of materials is one of the fields of building science.
- b) The strength of materials only studies bearing reactions structural systems.
- c) The strength of materials does not cover dimensions and choice of materials.
- d) A deformation takes place when the material is in a state of stress.
- e) Strain expresses the deformation change.
- f) Compressive stress elongates the material in the axis of the applied load.
- g) Tensile stress reduces the length of the material in the axis of the applied load.
- h) Shear stress causes opposing forces to act along parallel lines of action.
- 1) Yield strength, compressive strength, tensile strength, fatigue strength, and impact strength are not the terms in the strength of materials.

# 2. Read the text "Strength of Materials" and say if you are right or wrong. Discuss your answers with your groupmates or teacher.

Strength of Materials

Building science is the collection of scientific knowledge that focuses on the analysis and control of the physical phenomena affecting buildings. This includes the detailed analysis of building materials and building envelope systems. The practical purpose of building science is to provide predictive capability to optimize building performance and understand or prevent building failures. One of the fields of building science is the strength of materials. Its purpose is to determine the dimensions of the constructsons in order to resist to strains which they have to withstand, or to check if a specific construction is able to withstand certain strains. The strength of materials also gives the value of the bearing reactions of the hyperstatic structures. It enables to ensure the good performance of the beams under the permanent and service loads. Furthermore, this science studies the mechanical properties of materials used in the construction industry. The strength of materials is also the study of dimensions and choice of materials to implement in a construction. To design a mechanical part, a structure, it is initially to imagine the forms and geometrical skeleton which fulfil the specific functions; then, it is to determine the quantities of matter necessary and sufficient to achieve these forms and to ensure a resistance without damage to the object with all the strains it will be subjected to during its service. This dimensioning calls upon calculations that forecast the performance of the object whose design must combine the best conditions of security, economy, and esthetics.

In general, when an external force is applied to a body, a deformation takes place; this is called the strain. This deformation causes forces to be set up in the internal structure of the material, and the material is then said to be in a state of stress. The strain increases until the resulting stresses are sufficient to neutralize the applied force when the body is again in a condition of equilibrium. Deformation of the material is the change in geometry when stress is applied in the form of force loading, gravitational field, thermal expansion, etc. Deformation is expressed by the displacement field of the

material. Strain or reduced deformation is a mathematical term to express the trend of the deformation change among the material field. For uniaxial loading - displacements of a specimen (for example, a bar element) it is expressed as the quotient of the displacement and the length of the specimen. Deflection is a term to describe the magnitude to which a structural element bends under a load.

There are three kinds of stresses: compressive, tensile and shear. Compressive stress is the stress state caused by an applied load that acts to reduce the length of the material in the axis of the applied load, in other words the stress state caused by squeezing the material. Compressive strength for materials is generally higher than that of tensile stress. Tensile stress is the stress state caused by an applied load that tends to elongate the material in the axis of the applied load, in other words the stress caused by pulling the material. The strength of structures of equal cross sectional area loaded in tension is independent of cross section geometry. Shear stress is the stress state caused by opposing force acting along parallel lines of action through the material. There are some strength terms in the strength of materials. Yield strength is the lowest stress that gives permanent deformation. in a material. Compressive strength is a limit state of compressive stress that leads to compressive failure in the manner of ductile failure or in the manner of brittle failure. Tensile strength is a limit starte of tensile stress that leads to tensile failure in the manner of ductile failure (yield as the first stage of failure, some hardening in the second stage and break after a possible neck formation) or in the manner of brittle failure (sudden breaking in some pieces with a low stress state). Fatigue strength is a measure of the strength of a material or a component under cyclic loading, and is usually more difficult to assess than the static strength measures. Impact strength is the capability of the material in withstanding by the suddenly applied loads.

# 3. Find the paragraph saying about some strength terms used in the strength of materials and translate it into Russian.

### 4. Read aloud paragraph 2.

## 5. Explain the following references.

- a) Its purpose is to determine the dimensions of the constructions in order to resist to strains which they have to withstand What does the pronoun its refer to?
- b) Itenables to ensure the good performance of the beams under the permanent and service loads. What does the pronoun it refer to?
- c) this science studies the mechanical properties of materials used in the construction industry. What does the demonstrative adjective this refer to?
- d) it is to determine the quantities of matter necessary and sufficient to achieve these forms. What does the demonstrative adjective these refer to?
  - e) this is called the strain. What does the pronoun this refer to?
- f) it is expressed as the quotient of the displacement and the length of the specimen. What does the pronoun it refer to?
- g) Compressive strength for materials is generally higher than that of tensile stress. What does the pronoun that refer to?

# 6. Find in the text some key words and expressions to speak about the strength of materials. Retell the Text in English.

#### **STRESS-STRAIN RELATIONS**

# 1. Skim the text "Stress-Strain Relations" and try to understand what it is about and what information is known to you.

Stress-strain Relations

Elasticity is the ability of a material to return to its previous shape after stress is released. In many materials, the relation between applied stress and the resulting strain is directly proportional to a certain limit, and a graph representing those two quantities is a straight line. The slope of this line is known as Young's modulus, or the modulus of elasticity. The modulus of elasticity is the mathematical description of an object or substance tendency to be deformed elastically (i.e. non-permanently) when a force is applied to it The elastic modulus of an object is defined as the slope of its stress-strain curve in the elastic deformation region.

Where lambda is the elastic modulus; stress is the force causingthe deformation divided by the area to which the force is applied; and strain is the ratio of the change caused by the stress to the onginal state of the object. An alternative definition is that the elastic modulus is the stress required to cause a sample of the material to double in length. This is not realistic for most materials as the value is greater than the yield stress of the material or the point where elongation becomes nonlinear, but some may find this definition more intuitive.

Specifying how stress and strain are to be measured, including directions, allows for many types of elastic moduli to be defined. The three primary ones are:

- Young's modulus describes tensile elasticity or the tendency of an object to deform along an axis when opposing forces are applied along that axis; it is defined as the ratio of tensile stress to tensile strain. It is often referred to simply as the elastic modulus.
- The shear modulus or modulus of rigidity describes the tendency of an object to shear when acted upon by opposing forces; it is defined as shear stress over shear strain. The shear modulus is part of the derivation of viscosity.
- The bulk modulus describes volumetric elasticity, or the tendency of an object to deform in all directions when uniformly loaded in all directions; it is defined as volumetric stress over volumetric strain, and is the inverse of compressibility. The bulk modulus is an extension of Young's modulus to three dimensions.

Plasticity or plastic deformation is the opposite of elastic deformation and is accepted as unrecoverable strain. Plastic deformation is retained even after the relaxation of the applied stress.

Most materials in the linear-elastic category are usually capable of plastic deformation. Brittle materials, like ceramics, do not experience any plastic deformation and will fracture under relatively low stress. Materials such as metals usually experience a small amount of plastic deformation before failure while soft or ductile polymers will plastically deform much more.

#### 2. Give a brief overview of the structure and contents of the text.

## 3. Answer the following questions.

- a) What is elasticity?
- b) What is the type of the line representing applied stress and the resulting strain?
- c) What are the definitions of modulus of elasticity?

- d) What do Young's modulus, the shear modulus and the modulus describe?
- e) What is plastic deformation?
- f) What materials experience plastic deformation?

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#### **2.1.6. CEMENT**

#### **GENERAL PROPRTIES OF CEMENT**

#### 1. Read the following two texts and render it in English or in Russian.

General Properties of Cement

All types of cement shrink during setting. In a normal concrete the amount of this shrinkage will depend both on the proportion of cement in the mix and the quantity of mixing water employed. Provided enough water is present to enable the chemical action of setting to take place, then the smaller the amount of water the less shrinkage there will be. The type of aggregate used has an appreciable effect upon both the amount of water and the amount of aggregate that can be mixed with given quantity of cement

Strength and durability of concrete are linked properties in that they are both associated with the low water-cement ration. In addition to the proportion of cement and the water cement ratio of a cement product, the method of curing will also affect the amount of shrinkage. Normally, the slower the drying the less shrinkage there will be. All cement products are libe to a considerabe shrinkage during setting and hardening.

### Strength

The important thing is the strength of the final cement product rather than the strength of the cement, itself. The strength of the cement, however, gives some indication of the possible variation in the former, although the strength of the product will also depend upon the type and grading of the aggregate used, the proportion of aggregate and other factors such as water cement ratio and quality of workmanship.

## 2. Insert the needed words and groups of words:

Portland cement is a ... product.

It is made of ..., ... or ....

They are . ... and ..... with water to form .... a paste.

The mixture is then ... in a kiln.

The clinker is ground to .....

### 3. Ask and answer the questions:

- 1. Does the term "setting" relate to the stiffening of the mix due to chemical completion to change processes?
- 2. Is "hardening" a physical process?
- 3. Does the completion of the "final set" mean that the cement product will cease to its of properties?

# STEAM TREATMENT PROCESS TO PRODUCE THERMOPLASTIC MATERIALS AND HYDRAULIC CEMENTS

#### 1. Read the text and find the key sentences:

This invention relates to the manufacture of thermoplastic materials and hydraulic cements from certain glass compositions. More particularly, this invention relates to the manufacture of such products through the steam treatment of glass powders in the alkali metal silicate composition field.

A thermoplastic material is one having the property of sof tening when heated and of hardening and becoming rigid again when cooled. Hence, such a material is normally hard at room temperature but will soften and become moldable, adhesive, and cohesive when heated to some higher temperature. This property of thermoplasticity is well recognized in such organic materials as cellulose acetate, polyethylene, and vinyl polymers and in glasses at temperatures around and somewhat above the softening points thereof. The value of this property is apparent in the forming of articles through molding, pressing, extrusion, rolling, etc., and in forming composite structures, laminates, and the like.

A hydraulic cement is one that is capable of hardening under the influence of water. Hence, such a material, when mixed with water and allowed to stand, gradually sets up as a hard, massive solid structure. Portland cement is probably the best known material commercially of this type.

### 2. Read the following words:

process, thermoplastic, hydraulic, particularly, alkali, silicate, rigid, adhesive, cohesive.

### 3. Give derivatives of the following words and translate them.

to invent, to relate, to produce, to treat, to form, to mix, to press, cellulose, acetate, polyethelene, polymer, hydraulic

### 3. Put questions to the text.

### 4. Write a summary of the text.

#### 5. Render the following in English:

Бетон как строительвый материал применялся еще в глубокой древности (in ancient times). С XIX столетия после изобретения новых гидравлических вяжущих (blnding agents) в первую очередь портландцемента (Portland cement), бетон снова стал широко применяться для строительства различных интересных сооружений. Русские ученые уже с конца XIX века уделяли большое внимание созданию плотного бетона (paid great attention to consolidated concrete development). Yаибольшее развитие технология бетона получила после Великой Октябрьской социалистической революции, на-чиная с 1924 года со времени первого крупного гидротехнического строительства - Волховстроя (since the first great hydrotechnical construction site - Volkhovstroy). Вопросам общей технологии и теории бетонов, исследования физико-механических свойств, защиты бетонов от коррозии и повышения долговечности (increasing durabllity) посвящены работы ученых. Бетон - один из важнейших строительных материалов во всех областях строительства (one of the rnost important building rnaterials in all the fields of construction). Для гидротехнических сооружений большинство изделий делают из бетона марки 300 и выше. Это балки и балочные плиты (beam slabs) перекрытий, пролетов (spans)

более 6 м между быками. Некоторые сборные (precast) гидротехнические сооружения изготовляют из бетона марки 200. К бетону для гидротехнических сооружений предъявляются высокие требования (high requirements).

#### **FOUNDATIONS**

# 1. Before you read the text "Foundations", discuss the following questions with your groupmates or a teacher.

- a) What is a foundation?
- b) What types of foundations do you know?
- c) What is a shallow foundation?
- d) What types of shallow foundations do you know?
- e) What is a deep foundation used for?
- f) What types of deep foundations do you know?
- g) Who designs foundations?
- h) What aspects should be taken into account when designing a foundation?

### 2. Read the text and say if you are right or wrong.

**Foundations** 

A foundation is a structure that transfers loads to the earth. Foundations are generally broken into two categories: shallow foundations and deep foundations. A shallow foundation is usually embedded a meter or so into soil. One common type is the spread footing which consists of pads of concrete or other materials which extend below the frost line and transfer the weight from walls and columns to the soil or bedrock.

Another common type is the slab-on-grade foundation whene the weight of the building is transferred to the soil through a concrete slab placed at the surface. A deep foundation is used to transfer a load from a structure through an upper weak layer of soil to a stronger deeper larer of soil.

There are different types of deep foundations including helical piles, impact driven piles, caissons, piers, and earth stabilized columns The naming conventions for different types of foundations vary among different engineers. Historically, piles were wood, later steel, reinforced concrete, and pre-tensioned concrete.

Foundations are designed to have an adequate load capacity with limited settlement by a geotechnical engineer, and the foundation itself is designed structurally by a structural engineer.

The primary design concerns are settlement and bearing capacity. When considering settlement, total settlement and differential settlement are normally considered. Differential settlement is when one part of a foundation settles more than another part. This can cause problems to the structure the foundation is supporting. It is necessary that a foundation is not loaded beyond its bearing capacity or the foundation will fail.

Other design considerations include scour and frost heave. Scour is when flowing water removes supporting soil from asound a foundation (like a pier supporting a bridge over a river). Frost heave occurs when water in the ground freezes to form ice lenses. Changes in soil moisture can cause expansive clay to swell and shrink. This swelling can vary across the footing due to seasonal changes or the effects of vegetation removing moisture. The variation in swell can cause the soil to distort, cracking the structure over it. This is a particular problem for house footings in semi-arid climates

such as South Australia, Southwestern US, Turkey, Israel, Iran and South Africa where wet winters are followed by hot dry summers. Raft slabs with inherent stiffness have been developed in Australia with capabilities to resist this movement. When structures are built in areas of permafrost, special consideration must be given to the thermal effect the structure will have on the permafrost. Generally, the structure is designed in a way that tries to prevent the permafrost from melting.

# 3. Find the paragraph saying about the influence of soil on foundations and translate it into Russian.

#### 4. Read aloud paragraphs 5-6.

#### 5. Explain the following references.

- a) This can cause problems to the structure the foundation is supporting. What does the pronoun this refer to?
  - b) is not loaded beyond its bearing capacity

What does the pronoun its refer to?

c) Other design considerations include

What does the adjective other refer to?

d) This swelling can vary across the footing due to seasonal changes

What does the demonstrative adjective this refer to?

e) cracking the structure over it.

What does the pronoun it refer to?

- f) Raft slabs with inherent stiffness have been developed in Australia with capabilities to resist this movement. What does the demonstrative adjective this refer to?
  - 6. Underline or mark the main ideas of thetext and retell it in English.

### **FOUNDATIONS OF RESIDENTIAL AND INDUSTRIAL BUILDINGS**

# 1. Skim the text "Foundations of Residential and Industrial Buildings" and try to understand what it is about and what information is already known to you.

Foundations of residential and industrial buildings

The foundations in residential and industrial buildings support considerably heavy loads. Floor loadings range from 450 to 1,500 kilograms per square metre, and the full range of foundation types is used for them Spread footings are used, as are pile foundations, which are of two types, bearing and friction. A beaning pile is a device to transmit the load of the building through a layer of soil too weak to take the load to a stronger layer of soil some distance underground; the pile acts as a column to carry the load down to the bearing stratum. Solid bearing piles were originally made of timber, which is rare today; more commonly they are made of precast concrete, and sometimes steel H-piles are used. The pile length may be a maximum of about 60 metres but is usually much less. The piles are put in place by driving them into the ground with large mechanical hammers. Hollow steel pipes are also driven, and the interiors are excavated and filled with concrete to form bearing piles; sometimes the pipe is withdrawn as the concrete is poured.

An alternative to the bearing pile is the caisson. A round hole is dug to a bearing stratum with a drilling machine and temporarily supported by a steel cylindrical shell. The hole is then filled with concrete poured around a cage of reinforcing bars; and the steel shell may or may not be left in place, depending on the surrounding soil. The diameter of caissons varies from one to three metres. The friction pile of wood or concrete is driven into soft soil where there is no harder stratum for beamng beneath the site. The building load is supported by the surface friction between the pile and the soil. hen the soil is so soft that even friction piles will not support the building load, the final option is the use of a floating foundation, making the building like a boat that obeys Archimedes' principle - it is buoyed up by the weight of the earth displaced in creating the foundation. Floating foundations consist of flat reinforced concrete slabs or mats or of reinforced concrete tubs with walls turned up around the edge of the mat to create a larger volume.

If these buildings do not have basements in cold climates, insulated concrete or masonry frost walls are placed under all exterior nonbearing walls to keep frost from under the floor slabs. Reinforced concrete foundation walls for basements must be carefully braced to resist lateral earth pressures. These walls may be built in excavations, poured into wooden forms. Sometimes a wall is created by driving interlocking steel sheet piling into the ground, excavating on the basement side, and pouring a concrete wall against it. Deeper foundation walls can also be built by the slurry wall method, in which a linear series of closely spaced caisson-like holes are successively drilled, filled with concrete, and allowed to harden, the spaces between are excavated by special clamshell buckets and also filled with concrete. During the excavation and drilling operations the holes are filled with a high-density liquid slurry which braces the excavation against collapse but still permits extraction of excavated material. Finally, the basement is dug adjoining the wall, and the wall is braced against earth pressure.

#### 2. Give a brief overview of the structure and contents of the text.

- 3. Relate each heading to the corresponding paragraph of the text.
- a) Caissons.
- b) The slurry wall method.
- c) Bearing piles.
- d) Reinforced concrete foundation walls.
- e) Some specific features of foundations.
- f) Floating foundations.

## **DEEP FOUNDATIONS**

Read the text "Deep Foundations" and answer the questions. Discuss your answers with your groupmates.

- a) What is the difference between a deep foundation and shallow foundation?
- b) Why is a deep foundation preferred over a shallow foundation?
- c) What are the other names of a deep foundation?
- d) What are driven foundations characterized by?
- e) What is the structure of pile foundation systems?
- f) How are boring techniques employed for drilled piles?
- g) What do dry boring methods consist in?

#### h) What is specific of wet boring?

#### **Deep Foundations**

A deep foundation is a type of foundation distinguished from shallow foundations by the depth they are embedded into the ground. There are many reasons a geotechnical engineer would recommend a deep foundation over a shallow foundation, but some of the common reasons are very large design loads, a poor soil at shallow depth, or site constraints (like property lines). There are different terms used to describe different types of deep foundations including piles, drilled shafts, caissons and piers. The naming conventions may vary between engineering disciplines and firms. Deep foundations can be made out of timber, steel, reinforced concrete and pre-tensioned concrete. Deep foundations can be installed by either driving them into the ground or drilling a shaft and filling it with concrete, mass or reinforced.

Prefabricated piles are driven into the ground using a pile driver. Driven piles are either wood, reinforced concrete, or steel. Wooden piles are made from trunks of tall trees. Concrete piles are available in square, octagonal, and round cross-sections. They are reinforced with rebar and are often prestressed. Steel piles are either pipe piles or some sort of beam section (like an H-pile).

Historically, wood piles were spliced together when the design length was too large for a single pile; today splicing is common with steel piles, though concrete piles can be spliced with difficulty. Driving piles, as opposed to drilling shafts, is advantageous because the soil displaced by driving the piles compresses the surrounding soil, causing greater friction against the sides of the piles, thus increasing their load-bearing capacity. Foundations relying on driven piles often have groups of piles connected by a pile cap (a large concrete block into which the heads of the piles are embedded) to distribute loads which are larger than one pile can bear. Pile caps and isolated piles are typically connected with grade beams to tie the foundation elements together; lighter structural elements bear on the grade beams while heavier elements bear directly on the pile cap. Rotary boring techniques offer larger diameter piles than any other piling method and permit pile construction through particularly dense or hard strata Construction methods depend on the geology of the site, in particular, whether boring is to be undertaken in dry ground conditions or through water-logged but stable strata, i.e. wet boring. Boring is done until the hard rock or soft rock layer is reached in the case of end bearing piles.

If the boring machine is not equipped with a rockauger, then socketing of the hard rock layer is done with the help of a heavy chisel which is dropped from a height of about 1.5 metres by suspending it from a tripod stand attached to a winch crane. The socketing is carried out until the desired depth within the rock layer has been attained. The depth within the rock layer is considered to be equal to the diameter of the pile in hard rock layers and is taken to be equal to 2.5 times the diameter of the pile in soft rock layers.

Dry boring methods employ the use of a temporary casing to seal the pile bore through water-bearing or unstable strata overlying suitable stable material. Upon reaching the design depth, a reinforcing cage is introduced, concrete is poured in the bore and brought up to the required level. The casing can be withdrawn or left in situ.

Wet boring also employs a temporary casing through unstable ground and is used when the pile bore cannot be sealed against water ingress. Boring is then undertaken using a digging bucket to drill through the underlying soils to design depth. The reinforcing cage is lowered into the bore and concrete is placed by a tremie pipe.

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#### **2.1.7. CONCRETE**

#### **CONCRETE**

### 1. Read the text and identify the topic of each paragraph of the text.

Concrete is a kind of artificial rock made from hydraulic cement, crushed stone or gravel, and sand. It has the great advantage that it can be made in whatever shape is needed. For this reason concrete is preferred to natural rock, which is difficult to extract from the ground and which has to be worked to the required shape. By means of concrete it is possible to form such parts of buildings as walls, floors, beams or columns, bridge supports and girders, dams, roads and airfield runways, or blocks of stone of any desired shape. Concrete may be delivered ready-mixed, but it is one of the few building materials that can be made on the building site. In the making of concrete, the proportions of the sand, gravel, are carefully measured. The strength and Portland or similar cementof the concrete is partly determined by the amount of cement in the mixture. More cement would give a stronger, more durable mix, but would be more expensive. It is 1mportant not to use too much water as this will make the concrete weak. On the other hand, the concrete must be acked densely in the moulds, which cannot be done if the mixture is too dry. Producing concrete of good quality is therefore a skilled business Nowadays mechanical vibrators are used to make strong compact concrete from fairly dry mixes.

Concrete is strong in its resistance to loads trying to crush it (compression), but much weaker in resisting forces that tend to pull it apart (tension). It is not therefore suitable by itself for making beams or other parts liable to be bent or pulled. To overcome this weakness, steel rods may be embedded in the mixture, thus forming reinforced concrete. Reinforced concrete was first developed France by Joseph L. Lambot in 1849. To make reinforced concrete the steel rods are held in position and the concrete poured out them.

The concrete bonds to the steel reinforcement. Any forces tending to pull the reinforced concrete apart will be resisted by the great strength of the steel rods, or bars. Nearly all concrete used for buildings and structures is reinforced.

The size of reinforced concrete beams can be reduced if the reinforcement is stretched before the concrete is poured into position and the pull maintained until the concrete is hard and strong. The stretching force is then removed and, as a result, the beam is compressed. This type of concrete usually has reinforcement in the form of wires and is known as prestressed concrete. Sometimes separate blocks of concrete are made with holes through them. Cables of wire are threaded through these holes so that the concrete blocks are like beads on a string. The cables are fetched, wedges are placed

in the holes of the end block, and the cables are then released. The effect is to compress the row of blocks so that they form a beam of girder.

Lightweight concrete can be made by including processed clinker or air in the mix. Concrete can be made in different colours or painted with special paint. Different

patterns can be made on the surface by using different types of shuttering. Sometimes the cement layer on the surface is removed after the concrete has set to expose the stones. This is called exposed aggregate. Concrete can be used for thin roofs called shells over large spaces such as gymnasiums or aircraft hangars. The thin slab is strengthened by curving.

Pre-cast concrete is concrete already made into building sections for later use in housing, bridges, and other structures. They are taken to the site, lifted by cranes, and fixed together with concrete.

# 2. Complete the sentences choosing the best variant corresponding to the contents of the text.

- 1) Concrete has the great advantage because
- a) it is made from hydraulic cement, crushed stone or gravel, and sand.
- b) it is made in any shape.
- c) it has to be worked to the required shape.
- 2) Concrete is the building material that
- a) can be made on the building site.
- b) can't be delivered ready-mixed to the building site.
- c) can support walls, floors, beams, columns, girders.
- 3) The strength of concrete is determined by the quantity of
- a) sand and gravel.
- b) water.
- c) cement.
- 4) To make concrete stronger
- a) it should be put under loads.
- b) steel rods should be embedded.
- c) it should be put under compression or tension.
- 5) The reinforced concrete beam is compressed because
- a) it is stretched.
- b) the stretching force is removed.
- c) holes are made through it.

# MODERN BUILDING MATERIALS: CONCRETE

#### 1. Read and translate the text.

Concrete is perhaps the most widely spread building material used nowadays. Concrete is an artificial stone, made by thoroughlymixing such natural ingredients or aggregates as cement, sand and gravel or broken stone together with sufficient water to produce a mixture of the proper consistency. It has many valuable properties. It sets under water, can be poured into moulds so as to get almost any desirable form, and together with steel in reinforced concrete it has very high strength, and also resists fire. Prestressed concrete is most widely used at present while prefabricated blocks are employed on vast scale for skeleton structures.

AGGREGATES FOR CONCRETE

By the simple definition from the dictionary "aggregates are the materials, such as sand and small stones, that are mixed with cement to form concrete". In other words aggregates (or cushioning materials) can be defined as a mass of practically inert mineral materials, which, when surrounded and bonded together by an active binder, form the rock. This rock is denoted by the general term concrete.

Aggregates have three principal functions in the concrete: they provide a relatively cheap filler for the concreting material, or binder; they provide a mass of particles which are suitable for resisting the action of applied loads, of abrasion, of percolation of moisture through the mass, and of climate factors; they reduce volume changes resulting from the action of the setting and hardening of the concrete mass.

All aggregates, both natural and artificial, which have sufficient strength and resistance to weathering, and which do not contain harmful impurities may be used for making concrete. As aggregates such natural materials as sand, pebbles, broken stone, broken brick, gravel, slag, cinder, pumice and others can be used.

#### PRESTRESSED CONCRETE

Prestressed concrete is not a new material. Its successful use has been developed rapidly during the last two decades, chiefly because steel of a more suitable character has been produced. Concrete is strong in compression but weak when used for tensile stresses. If, therefore, we consider a beam made of plain concrete, and spanning a certain distance, it will at once be realized that the beam's own weight will cause the beam to "sag" or bend. This sagging at once puts the lower edge of the beam in tension, and if the crosssectional area is small, causes it to break, especially if the span is relatively large.

If, \*on the other hand', we use a beam of similar cross-section, but incorporate steel bars in the lower portion, the steel will resist the tensile stress derived from the sag of the beam, and thus assist in preventing it from breaking. In prestressed concrete steel is not used as reinforcement, but as a means of producing a suitable compressive stress in the concrete.

Therefore any beam (or member) made of prestressed concrete is permanently under compression, and is consequently devoid of crack under normal loading, or so long as the "elastic limit" is not exceeded. Prestressed concrete is not only used for beams but is now employed extensively for columns, pipes, and cylindrical water towers, storage tanks, etc.

### 2. A few explanations to the text

1... .on the other hand,—с другой стороны

# 3. Key vocabulary /expressions

```
bend [bend] — v сгибаться; гнуться; изгибаться crack ['kraek] — n 1. треск 2. трещина desire [di'zaia] — и желание; просьба, требование gravel ['grasvol] — гравий load [loud] — n груз; нагрузка sag [sasg] — оседать, обвивать; падать" store ['sto:]—n запас; склад;/?/универсальный магазин tensile ['tensail]—растяжимый
```

## 4. Wordconstruction (Different ways to construct words)

# 4.1. Write out international words out of the text and translate them without a dictionary

## 4.2. Translate the following words Keeping in mind their suffixes

Memorise the words of the same stem em' ploy—employ' ee—em' ployer—em' ployment 'nature — 'natural — 'naturally compress—compressor—compression

#### 5. Add the missing parts of the sentences from the text

- 1... .to produce a mixture of the proper consistency.
- 2. Concrete is an artificial stone, made by thoroughly...
- 3. ...they provide a relatively cheap filler for the concreting material, or binder;...
- 4. This sagging at once puts the lower edge...
- 5—as a means of producing a suitable compressive stress in the concrete.
- 6... any beam made of prestressed concrete is permanently under compression...
- 7. This sagging at once puts the lower edge....

### 6. Find in the text equivalent Russian phrases to the following English

a relatively cheap filler the proper consistency resistance to weathering spanning a certain distance the cross-sectional area negotiated fee

## 7. Find in the text equivalent English phrases to the following Russian

вредные примеси удачное использование цементируемый материал искуственный камень быть постоянно под напряжением заполняющие материалы

## 8. Speaking Practice. Switch on your imagination.

# **8.1.** Complete the sentences

- 1. The worst thing for me is...
- 2. What I love most is...
- 3. The best thing for me is...
- 4. What I hate most...

#### 8.2. Let's talk a bit

- 1. Why is concrete more fit for foundation?
- 2. What floor covering is the best?
- 3. What colour should bedroom walls be? (kitchen walls, livingroom walls)
- 4. What should a chimney be made of?
- 5. Why is it nice to have a mantelpiece?
- 6. What timber is considered to be the best for the window frames?
- 7. What professionals does a construction team need?

#### 9. We continue enlarging your vocabulary. International words:

ventilation [ventileijn]
hermetic [ha'metik]
stress [stres]
mineral [тшпэгэ1]
cylinder ['silinda]
elastic [i'lsestik]
subordination [s3bo:di'neiJn]
portion ['po:Jn]
compression [kam'prejn]
mass [mass]
limit [limit]
block [blok]
tank [taerjk]
skeleton ['skelitn]

#### **NEW TYPES OF CONCRETE**

# 1. Expand the ideas of the two texts (a and b) given below. Comment briefly on any aspect connected with concrete or with your research.

a) Not long ago a new building material was born. Called alkali-slag concrete, most of its components come literally from under foot. Cement is replaced by a mixture of granulated blast-furnace slags and sodium and potassium compounds. The filler can be sand or sandy loams containing various amounts of clay, which usually cannot be used with conventional cement.

The new material has been tested successfully and is now being used for roads, pavements, irrigation systems and other structures. Specialists estimate that the use of alkali-slag concrete will help save hundreds of millions of rubles on the country's construction projects.

b) Chemically resistant concrete (кислотоупорный) may be sometimes used in the construction of structures attacked by chemically active media (среда), i.e. industrial, hydraulic and underground structures. It has been proposed to prepare a chemically resistant concrete using a binder (вяжущее), a vitreous sodium silicate (стекловидный силикат натрия). When such a vitreous silicate is dissolved in water, liquid (жидкий) glass is obtained. In order to assist in the solidification of the liquid glass and increase its water resistance certain elements are added to the concrete composition. They serve to neutralize the alkali (щелочь) in the liquid glass and convert it into a water-insoluble (нерастворимый) compound. Thus, during the course of the neutralization of the alkali, free silica is evolved(выделяется кварц) from the liquid glass in the form of a gel which serves as a blnder. Chemically resistant concrete has not found wide application because it is completely permeable to aggressive, corrosive solutions.

The Soviet scientist V. P. Kirilishin decided to provide an improved alkali metalsilicate based concrete. In accordance with his invention high silica-alkaline glasses are practically insoluble in water even at elevated temperatures and are not suitable for the production of liquid glass. However, when subjected to heat in the presence of finely divided quartz sand, the high silica alkaline glass does show some water solublity and has the ability to crystallize into quartz on the finely divided particles of the quartz sand. In the present invention the silica binding agent is not present in the form of a gel that has the more thermodynamically and chemically stable crystalline form of free silica, namely quartz. This leads to good chemical, physical, thermal and mechanical characteristics for the binder and the chemically resistant concrete.

#### THE PROPERTIES OF CONCRETE

Concrete must be hard, strong, durable, dense, non-porous, fire-resisting and economical. Concrete has proved to be durable when made of good materials, well mixed, and properly cured. Failures can be found in concrete work, but the trouble is usually caused by poor material, faulty foundations, lack of knowledge of the properties of concrete or poor workmanship.

For example, some cements will give better results in sea water than others. This fact had to be established by experience and experiments. It is more difficult to secure durable reinforced concrete than mass concrete. This is due to the reinforcing steel and the additional water required to make the concrete flow around the steel bars. When moisture reaches the steel, it will rust and the expansion caused by the rust will crack the concrete, resulting in an unsightly structure and necessary repairs. In all structures exposed to the weather the reinforcing steel must be carefully placed and well secured so that it cannot be displaced while concreting. No metal should project to the surfaces. Small wires will soon cause rust spots on the surface of the concrete if they are exposed.

Concrete, to be durable, must be made of good materials, uniform in quality, mixed with a minimum amount of water, and properly placed and protected while curing. Concrete exposed to sea water and the rise and fall of water levels, especially in cold climates where ice forms on the structures, requires special attention in the selection of the cement, aggregates, mixing, placing and curing.

With the use of dense aggregates the proportions which will produce the densest products are generally those which contain the maximum amount of coarse aggregate and still contain enough fine aggregate to produce a smooth surface. With porous aggregates used in the production of light weight units, the amount of material in the mix passing a 50-mesh sieve is generally limited and in addition more of the coarse aggregate is used to produce a unit of less density and lower weight. This is generally desirable for light weight units except where fire resistance or watertightness are important.

The strength of plain concrete depends upon the quality of the cement, the strength and character of the aggregate, the quantity of cement in a unit of volume, and the density of the concrete. Other things being equal the strongest concrete is that containing the largest amount of cement in a given volume of concrete, the strength of the concrete varying directly as the amount of cement.

With a given quantity of cement in a unit of volume, the strongest concrete is that in which the aggregates are proportioned so as to give a concrete of the greatest density that is of the greatest weight per unit of volume. The strength of concrete also depends upon the methods used in mixing, upon the care taken in measuring the ingredients, and in mixing and placing the concrete. Concrete exposed to the air hardens more rapidly than protected concrete.

The setting of cement is a chemical change brought about by the addition of water to the cement, the strength increasing very rapidly the first few days, after which the mixture slowly hardens and increases in strength. Concrete has poor elastic and tensional properties, but it is strong in compression. Its tensile strength is only one-tenth of its compressive strength. The compressive strength of plain concrete varies between wide limits, depending upon the cement, the proportions of cement and aggregates, and the methods of mixing, and depositing, and the age.

#### **GAS CONCRETE**

#### 1. Read the text.

Lime and silica are ground together to very fine limits. The silicious made material of such waste can vary materials considerably as fly ash in from its composition. Much use is made of such waste materials as fly ash from power-stations, blast furnace slag, as well as natural pozzolanas, pumice, etc. The degree of foaming in the gas concrete, and thus its specific gravity, is determined by the amount of aluminium powder or other agent added. The practical limits of the final density are between 13 and 90 lb. per cu. ft. If the gas concrete is allowed to harden on its own, it usually takes about three weeks before the final strength is achieved. It is more customary to accelerate the setting of the gas concrete by steam hardening it in autoclaves with superheated steam at about 140 lb. per sq. in. The steam hardening process takes about 15-20 hr. Air-cured gas concrete can be used for the manufacture of special components, for the refrigeration industry. Such blocks are cast to special dimensions. Gas concrete can be cast horizontally to form roomsized outer wall units. It is possible to incorporate electric conduit pipes, piping for the cold and hot water systems and also drainage pipes. The units usually include windows and doors, and are reinforced by embedding steel mesh in the mix. Gas concrete can be used as thermally insulating floor screeds or as an additional thermally insulating layer on top of a concrete roof. Cast gas concrete is often used as the thermally insulating layer in "sandwich wall" units. Gas concrete is often used as a thermally insulating layer when casting buildings by a continuous casting technique.

### 2. Answer the following questions:

- 1. Which materials are used for the production of gas concrete?
- 2. How caπ the setting of gas concrete be accelerated?
- 3. Caπ you name the main purposes f or which air hardening gas concrete is used?
- 4. Where caπ gas concrete be successfully used?
- 5. What caπ you say about cast gas concrete?

### **BRICKS**

# 1. Read Text "Bricks" and find the answers to these questions. Discuss your answers with your groupmates.

- a) Why are bricks considered to be the most lasting of man-made building materials?
  - b) What ways are bricks made in?
  - c) What is the soft-mud process characterized by?
  - d) What does the stiff-clay process consist in?
  - e) What is specific of the pressed brick process?
  - f) When are bricks ready for firing?
  - g) What process produces the bricks of light sandy colour?

- h) What advantages do lighter bricks have?
- i) What factors does the colour of clay bricks depend on?
- j) What are oversize bricks called?

Good bricks are the most lasting of man-made building materials. They are not much affected by the weather and, if a building catches fire, brickwork resists the effects of fire longer than most other forms of construction. Bricks are fairly small and light and therefore easy to handle, but when they are bonded together with mortar they make extremely strong structures. Good brickwork needs very little maintenance, lasts for a long time, and looks attractive.

Brick is formed in three ways. the soft-mud, staff-clay, and pressed brick processes. In the soft-mud process, clay is mixed with water to form a stiff paste which is then thrown by hand or forced by machine into wooden or metal box-like moulds of the size of a brick. Sand or water is sprinkled on the inside of the moulds tokeep the clay from sticking. The sand or water also gives the brick a pleasant finish. Such bricks are called sand-struck or water-struck bricks. The soft, wet bricks are removed from the moulds for drying.

In the stiff-clay process, the ground clay is mixed with water in a long trough containing a revolving shaft with blades. The blades mix the clay with water as they revolve and at the same time push it forward into an extrusion machine. This forces it through a rectangular opening. It is extruded in a long bar of the length and width of a brick. A moving belt carries the clay bar to a cutter, which is a metal frame with a number of wirestretched across it. The wires are brought down on the bar to cut it into bricks, which are then dried. Bricks formed in this way are known as extruded wire-cut bricks.

In the pressed brick system, the clay is semi-dry, and is pressed by a heavy machine into metal moulds under such high pressure that the clay particles hold together. Because pressed brick has very little water, it needs little drying. After being formed, bricks are loaded on rail trucks and pushed into driers, and then into kilns to be fired. Drying takes two to three days and then the bricks are ready for finng.

Clay is the material most often associated with bricks, but since the late 19th century other materials have been used. For example, calcium silicate bricks, sometimes known as sand lime bricks, are made by pressing a mixture of moist sand and lime into brick shape by machine.

The bricks are then steamed under high pressure in an autoclave. This process produces bricks of anattractive light sandy colour which can be textured and pigmented in a variety of ways. Not all bricks are completely solid Some have frogs in them. They make it easier to press and fire the bricks and reduce the weight Lighter bricks are easier to handle and cheaper to transport.

Nowadays many machine-made bricks have holes in them for similar reasons. These are called perforated bricks. Specials as the name suggests, are bricks made for a specific purpose They are usually shaped to fit angles and curves or to produce decorative effect.

The colour of clay bricks depends on several factors. The type of clay used, chemicals in the clay, the supply of oxygen while the bricks are being fired, and the temperature the bricks reach during firing. The colours vary from dark purple to light yellow. Facing bricks to be used in the outer walls of buildings can be given a rough or textured surface, or they may be glazed to add to their attractiveness.

Sand-lime bricks are naturally white, off-white, or pink, depending on the sand used to make them. By adding pigments, any colours from pale pastels to dark tones can be produced. Blocks are essentially oversize bricks -- commonly about the size of six bricks. They may be made of clay or concrete. Clay blocks are hollow; concrete blocks may be solid or hollow. The advantage of blocks over bricks is that building can be carned out faster with them.

#### **CONCRETE STRUCTURES**

#### 1. Retell the text.

The world has suddenly become aware of the great resources of oceans and their potential for providing many of man 's most pressing needs: energy, food, transport, minerals and waste-disposal. However the seas present an extremely hostile environment, requiring cooperative efforts by many engineering disciplines in order to achieve the necessary structures. These structures must be strong, safe, durable and economical. Reinforced prestressed concrete meets these criteria extremely well for many of the proposed structures, both fixed and floating. These include drilling, breakwaters, ocean pipelines, offshore nuclear power plants; ocean bridges and tunnels; offshore airports and terminals; Arctic Ocean structures; barges, ships and floating stable platforms; offshore expositions and even cities; sea floor chambers etc.

2. Make up some sentences using the following words and word combinations: concrete durability, deep water, offshore, concrete structures, prestressed concrete, reinforced concrete, underwater structures.

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### 2.1.8. BUILDING METHODS

#### **BRICKLAYING AND CONCRETE BLOCKS**

- 1. Before you read the text "Bricklaying and Concrete Blocks", think about the statements given below and say if they are true or false.
- a) The bricks must be carefully bonded in order to provide for the mixing of mortar.
  - b) Bricks have lower water absorption than concrete blocks.
  - c) Cavity walls do not prevent heat from escaping from the building.
  - d) The bricklayer has to be skilful to keep each layer of bricks horizontal.
  - e) Soft bricks or rubbers can be built with thin mortar joints after shaping them.
  - f) Concrete blocks are used for the walls of industrial buildings.
  - g) A stucco surface is a sort of decoration.
  - h) Surface-bonding cement does not make a wall stronger.
- 2. Read the text and find out the answers to the true/false statements. Discuss your answers in pairs.

When a wall is built of bricks, the bricks are set in mortar. Mortar consists of a mixture of sand and either lime or Portland cement or, more often, a mixture of the two. Enough water is used in mixing the mortar to produce a paste in which the bricks can be firmly bedded. The bricks must be carefully arranged, or bonded as it is called, in the wall in order to produce a structure of good strength and appearance, the pattern of the brickwork depending on the bond which is used. The pointing or finishing of mortar joints is also given careful attention since it affects the appearance and the weather resist- ance of the wall.

Each layer of bricks is called a course and the bricklayer has to be very skillful to keep the courses exactly level and the thickness of mortar between each course of bricks the same throughout the length and depth of the wall. The corners of the walls must be absolutely upright.

Nowadays the outer walls of buildings often consist of an outer and inner wall with a space of about 5 centimetres between them, the two layers being held together at intervals by small metal ties. These cavity walls, as they are called, help moisture evaporate better than solid walls. A layer of insulating material is often put in the space between the walls to prevent heat escaping from the building. This is known as cavity wall insulation.

When bricks are built in curves, as in arches or curved walls, the bricklayer has to shape the bricks in order to fit them together. Sometimes quite soft bricks called rubbers are used; these can be rubbed on a hard stone in order to shape them so accurately that they can be built with thin mortar joints. Work of this type is known as gauged brickwork and demands great skill. Blocks of cinder concrete, ordinary concrete, or hollow tile are generically known as concrete masonry units. They are usually much larger than ordinary bricks and so are much faster to lay for a wall of a given size. Furthermore, cinder and concrete blocks typically have much lower water absorption rates than brick. They are often used as the structural core for veneered brick masonry, or are used alone for the walls of factories, garages and other industrial style buildings where such appearance is acceptable or desirable. Such blocks often receive a stucco surface for decoration. Surface-bonding cement, which contains synthetic fibers for reinforcement, is sometimes used in this application and can impart extra strength to a wall. Surface-bonding cement is often pre-coloured and can be stained or painted thus resulting in a finished stucco-like surface.

The primary structural advantage of concrete blocks in comparison to smaller clay-based bricks is that a concrete masonry unit wall can be reinforced by filling the block voids wrath concrete with or without steel rebar. Generally, certain voids are designated for filling and reinforcement, particularly at corners, wall-ends, and openings while other voids are left empty. This increases wall strength and stability more economically than filling and reinforcing all voids Steel reinforcement can be embedded in horizontal rortar joints of concrete block walls. The introduction of steel reinforcement generally results in a concrete masonry unit wall having much greater lateral and tensile strength than unreinforced walls. Some concrete blocks are coloured, and some employ a split fore, technique that results in two blocks being manufactured as one unit and later split into two. This gives the blocks a rough face replicating the appearance of natural, quarried stone, such as brownstone. For applications such as roadway sound control walls, the face patterns may be complex and even artistic.

# 3. Find in in the text the paragraph saying about the advantages of concrete blocks over clay bricks and translate it into Russian.

## 4. Read aloud paragraph 5.

### 5. Explain the following references.

a) it affects the appearance of the wall.

What does the pronoun it refer to?

b) This is known as cavity wall insulation.

What does the pronoun this refer to?

c) in order to fit them together.

What does the pronoun them refer to?

d) These can be rubbed on a hard stone.

What does the pronoun these refer to?

e) They are usually much larger than ordinary bricks.

What does the pronoun they refer to?

f) They are often used as the structural core for veneered brief masonry.

What does the pronoun they refer to?

g) This increases wall strength and stability more economically than filling and reinforcing all voids.

What does the pronoun this refer to?

# 6. Find in the text some key words and expressions to speak about bricklaying. Retell the Text in English.

#### **MASONRY**

# 1. Skim the text "Masonry" and try to understand what it is about and what information is already known to you.

Masonry

Masonry is the building of structures from individual units laid in and bound together by mortar; the term masonry can also refer to the units themselves. The common materials of masonry construction are brick, stone such as marble, granite, travertine, limestone; concrete block, glass block, and tile. Masonry is a highly durable form of construction. However, the materials used, the quality of the mortar and workmanship, and the pattern in which the units are assembled can affect the durability of the overall masonry construction.

Masonry is commonly used for the walls of buildings, retaining walls and monuments. Brick and concrete block are the most common types of masonry in use in industrialized nations and may be either weight-bearing or a veneer. Concrete blocks, especially those with hollow cores, offer various possibilities in masonry construction. They generally provide great compressive strength and are best suited to structures with light transverse loading when the cores remain unfilled. Filling some or all of the cores with concrete or concrete with steel reinforcement (typically rebar) offers much greater tensile and lateral strength to structures.

The use of materials such as brick and stone can increase the thermal mass of a building, giving increased comfort in the heat of summer and the cold of winter, and can be ideal for passive solar applications. Brick will not require painting and so can

provide a structure with reduced life-cycle costs, although sealing appropriately will reduce potential spalling due to frost damage. Non-decorative concrete block generally is painted or stuccoed if exposed. The appearance, especially when well crafted, can impart an impression of solldity and permanence. Masonry is heat resistant and thus provides fire protection. Masonry walls are more resistant to projectiles, such as debris from hurricanes or tornadoes than walls of wood or other softer, less dense materials. Extreme weather causes degradation of masonry wall surfaces due to frost damage. This type of damage is common with certain types of brick, though rare with concrete block. If non-concrete (clay-based) brick is to be used, care should be taken to select bricks suitable for the climate in question. Masonry tends to be heavy and must be built upon a strong foundation (usually reinforced concrete) to avoid settling and cracking. If expansive soils (such as adobe clay) are present, this foundation needs to be quite elaborate and the services of a qualified structural engineer may be required, particularly in earthquake prone regions.

Masonry boasts an impressive compressive strength (vertical loads) but is much lower in tensile strength (twisting or stretching) unless reinforced. The tensile strength of masonry walls can be strengthened by thickening the wall, or by building masonry piers (vertical columns or ribs) at intervals. Where practical, steel reinforcements can be added.

The strength of a masonry wall is not entirely dependent on the bond between the building material and the mortar; the friction between the interlocking blocks of masonry is strong enough to provide a great deal of strength on its own. The blocks sometimes have grooves or other surface features added to enhance this interlocking, and some dry set masonry structures forego mortar altogether.

Solid masonry without steel reinforcement tends to have very limited applications in modern wall construction. While such walls can be quite economical and suitable in some applications, susceptibility to earthquakes and collapse is a major issue. Solid unreinforced masonry walls tend to be low and thick as a consequence.

Solid brickwork is made of two or more layers of bricks with the units running horizontally (called stretcher bricks) bound together with bricks running transverse to the wall (called header bricks). Each row of bricks is known as a course. The pattern of headers and stretchers employed gives rise to different bonds such as the common bond (with every sixth course composed of headers), the English bond, and the Flemish bond (with alternating stretcher and header bricks present on every course). There are no significant utilitarian differences between most bonds, but the appearance of the finished wall is affected. Vertically staggered bonds tend to be somewhat stronger and less prone to major cracking than a non-staggered bond.

# 2. Identify the topic of each paragraph of the text

## 3. Answer the following questions.

- a) What is masonry?
- b) What are the common materials of masonry construction?
- c) What are the most common types of masonry?
- d) Why do concrete blocks offer various possibilities in masonry construction?
- e) What are the advantages of bricks and stone?
- f) Does masonry provide fire protection?
- g) What are the disadvantages of masonry?

- h) What can help to avoid the settling of foundations?
- i) How can the tensile strength of a wall be strengthened?
- j) What does the strength of a masonry wall depend on?
- k) Why does solid masonry without steel reinforcement have limited applications?
- 1) What are stretcher and header bricks?

#### **FRAMING CONSTRUCTION**

Read the text "Framing Construction" and answer the questions. Discuss your answers with your groupmates.

- a) What sort of building technique is framing?
- b) What members does wall framing include?
- c) What are the common methods of framing?
- d) What is post and beam framing characterized by?
- e) What is specific of balloon framing?
- f) What does platform framing consist in?
- g) Why is a multiple stud post used at extenor comers?
- h) What supports the upper floors, ceiling and roof?
- i) What are loadbearing and non-loadbearing walls?
- i) What are lintels constructed of?
- k) When are the assembled sections nailed together?

#### Framing Construction

Framing is a building technique based on structural members which provide a stable frame to which interior and exterior wall coverings are attached and covered by a roof comprising honzontal ceiling joists and sloping rafters (together forming truss structure) or manufactured pre-fabricated roof trusses -- all of which are covered by various sheathing materials to give weather resistance.

Wall framing in house construction includes the vertical and horizontal members of exterior walls and interior partitions, both of bearing walls and non-bearing walls. Studs, wall plates and lintels serve as a nailing base for all covering material and support the upper floor platforms, which provide the lateral strength along a wall. The platforms may be the boxed structure of a ceiling and roof, or the ceiling and floor joists of the storey above. There are three historically common methods of framing a house.

- Post and beam framing is now used in barn construction.
- Balloon framing using a technique suspending floors from the walls was common until the late 1940s, but since that time platform framing has become the predominant form of house construction.
- Platform framing often forms wall sections horizontally on the sub-floor prior to erection, easing positioning of study and increasing accuracy while cutting the necessary manpower. The top and bottom plates are end-nailed to each stud with two nails. Studs are at least doubled at openings, the jack stud being cut to receive the lintels (headers) that are placed and end-nailed through the outer studs.

Wall sheathing, usually a plywood or other laminate, is usually applied to the framing prior to erection, thus eliminating the need to scaffold. A multi ple-stud post made up of at least three studs is generally used at exterior corners and intersections to secure a good tie between adjoining walls and to provide naalling support for the interior finish and exterior sheathing. Corners and intersections, however, must be framed with at least two studs. Nailing support for the edges of the ceiling is required at

the junction of the wall and ceiling where partitions run parallel to the ceiling joists.

Wall framing in house construction includes the vertical and horizontal members of exterior walls and interior partitions. Studs, wall plates and lintels serve as a nailing base for all covering material and support the upper floors, ceiling and roof.

Exterior wall studs are the vertical members to which the wall sheathing and cladding are attached. They are supported on a bottom plate or foundation sill and in turn support the top plate. Interior partitions supporting floor, ceiling or roof loads are called loadbearing walls; others are called non-loadbearing or simply partitions. Interior loadbearing walls are framed in the same way as exterior walls.

Lintels (headers) are the horizontal members placed over window, door and other openings to carry loads to the adjoining studs. Lintels are usually constructed of two pieces of lumber separated with spacers to the width of the studs and nailed together to form a single unit. The preferable spacer material is rigid insulation.

The complete wall sections are then raised and put in place, temporary braces added and the bottom plates nailed through the subfloor to the floor framing members. Once the assembled sections are plumbed, they are nailed together at the corners and intersections. Astrip of polyethylene is often placed between the intenor walls and the extenor wall, and above the first top plate of interior walls before the second top plate is applied to attain continuity of the air barner when polyethylene is serving this function. A second top plate usually laps the first plate at the corners and partition intersections and, when nailed in place, provides an additional tie to the framed walls.

#### NANOTECHNOLOGY AND CONSTRUCTION

Read the text "Nanotechnology and Construction" and answer the questions. Discuss your answers with your groupmates.

- a) What is nanotechnology?
- b) Why is the size of particles so important in nanotechnology?
- c) Is nanotechnology a new science?
- d) What prospects does nanotechnology offer?
- e) What will construction benefit from nanotechnology?
- f) What nano-sized participles are applied to building materials?
- g) What holds back the development of nanotechnology?
- h) When will the advances in the use of nanotechnology arrive?

## Nanotechnology and Construction

Nanotechnology is the use of very small particles of material either by themselves or by their manipulation to create new large scale materials. The size of the particles is very important because at the length scale of the nanometre, 10-9 m, the properties of the material actually become affected. The precise size at which these changes are manifested varies between materials, but is usually in the order of 100 nm or less. Nanotechnology is not a new science and it is not a new technology. It is rather an extension of the sciences and technologies that have already been in development for many years and it is the logical progression of the work that has been done to examine the nature of our world at an ever smaller scale. A nanometer is a billonth of a metre. The recent developments in the study and manipulation of materials and processes at the nanoscale offer the tantalizing prospect of producing new macro materials, properties and products.

The construction business will inevitably be a beneficiary of this nanotechnology,

in fact it is already in the fields of concrete, steel and glass Concrete is stronger, more durable and more easily placed, steel tougher and glass self-cleaning. Increased strength and durability are also a part of the drive to reduce the environmental footprint of the built environment by the efficient use of resources. This is achieved both to the construction process by a reduction in pollution during the production of materials (e.g. cement) and also in service through efficient use of energy due to advancements in insulation. Two nano-sized particles that stand out in their application to construction materials are titanium dioxide (TiO2) and carbon nanotubes (CNTs) The former is being used for its ability to break down dirt or pollution and then allow it to be washed off by rain water on everything from concrete to glass and the latter is being used to strengthen and monitor concrete CNTs have many more properties, apart from exceptional strength, that are being researched in computing, aerospace and other areas and the construction industry will benefit directly or indirectly from those advancements as well.

Cost and the relatively small number of practical applications for now hold back much of the prospects for nanotechnology. However, construction also tends to be a fragmented, low research oriented and conservative endeavour and this plays against its adoption of new technologies, especially ones that appear so far removed from its core business. Materials are construction core business and the prospects for more changes are significant in the not too distant future. In fact, the researchers surveyed and predicted that many advances would arrive within five years. The sheer size and scope of the construction industry means that the accompanying economic impact will be huge. In order to capitalize on the effects of nanotechnology on the business, however, much more funding for construction related research, increased interdisciplinary working between researchers and communication between those researchers and industry is needed.

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## 2.1.9. BUILDING AND ITS ELEMENTS

## **BUILDING STYLES**

- 1. Before you read Text 4A "Building Styles", study the statements given below. Do you think they are true or false?
  - a) There are only old buildings in Britain.
  - b) There are a lot of large houses in the United States.
  - c) Americans don't like to live in city centres.
  - d) There are a lot of different types of houses in the US.
  - e) Villages are not pleasant places to live.
  - f) A detached house is the most prestigious type of house.
  - g) A semi-detached house is the most expensive type of house.
  - h) Only working people live in terraced houses.
  - 1) Cottages are regarded as dream homes by some people.
  - g) Blocks of flats were built because they didn't need any repair.

2. Read the text. Find the answers to the true/false statements. There is one statement for each paragraph. Discuss your answers with your groupmates.

### **Building Styles**

Houses and public buildings in Britain and the US have been built in a range of styles and materials. Old and new stand side by side. In Britain there are timber-framed houses, buildings of brick or stone, and modern concrete and glass structures. Many US architectural styles came originally from Europe.

In the US there is plenty of space, except in big cities, so many houses are large and have a lot of garden around them. Most are detached, but there are also duplexes. Ranch-style houses are built on one floor only. Mansions are very large houses where nch people live. Some types of houses are associated with certain parts of the country. New York City, for instance, is famous for its brownstone, tall, narrow buildings named after the material used to build them. In the Midwest there are many wooden frame houses with pointed roofs. The South has wooden houses built before the Civil War in the antebellum style. But all over the US houses are built in many different styles. Many Americans prefer to live in the suburbs rather than in a city centre in order to have a pleasant environment and plenty of space. They often live on housing developments, areas where all the houses were built at the same time and are similar in style.

In cities many people rent an apartment in an apartment building. Apartments usually have no more than three bedrooms, and are often rented furnished. An apartment with only one room may be called a studio or loft. A building in which the apartments are owned by the people who live in them is called a condominium or a co-op. Poor people may live in apartments in tenements in the downtown area of a city, in small, very basic houses or in mobile homes. Despite the name, many people keep their mobile home in a trailer park and never move it.

Many people in Britain live in the suburbs consisting of new housing estates, while others were originally villages that have become joined to the town as it has grown. Villages are considered to be pleasant places to live, as they are quieter and less polluted that towns and are closer to the countryside. They usually contain range of houses, including old cottages and new houses and bungalows.

Most houses are built of brick with a tiled roof, though some are built of stone. The largest and most expensive type of house is detached house, which is not joined to other houses and has garden all round it. Detached houses have at leasthree bedrooms and one or two bathrooms upstairs, and one or more living rooms plus a separate dining room and kitchen downstairs.

Semi-detached houses, or semis, are extremely common. They are built in pairs with one house joined to the other along one side. These houses usually have two or three bedrooms. There is a separate garden at the front and the back for each house.

Terraced houses date from Victorian and Edwardian times and were built mainly for working-class people. Four or more houses are joined together in a row. Terraced houses were onginally quite small. Most have now been extended and bathrooms added, and in some towns they have become fashionable with professional people.

Cottages are small, very old village houses. Some have thatched roofs. Many have been modernized inside but still keep the wooden beams and other features that are thought to give them character. Some people think of a country cottage as their dream home. Bungalows have one storey, and this makes them especially popular with older people They are mostly found in villages or on housing estates.

High-rise blocks of flats, sometimes over 20 storeys high with several flats on each floor, were built in many towns in the mid 20th century. Many have since been pulled down because they needed a lot of repairs and because people did not like living in them.

# 3. Find the paragraph saying about the type of houses most British people prefer to live and translate it into Russian.

#### 4. Read aloud paragraphs 6-7.

### 5. Explain the following references.

a). Old and new stand side by side.

What do the adjectives old and new refer to?

b) They often live on housing developments.

What does the pronoun they refer to?

c) others were originally villages that have become joined to the town as it has grown.

What does the pronoun others refer to?

d) They usually contain a range of houses, including old cottages and new houses and bungalows.

What does the pronoun they refer to?

e) some are built of stone.

What does the pronoun some refer to?

f) this makes them especially popular with older people.

What do the pronouns this and them refer to?

6. Find in the text some key words and expressions to speak about different types of houses in Great Britain and the United States of America. Retell the text in English.

#### **BUILDING HOUSES**

1. Skim the text "Building Houses" and try to understand what it is about and what information is already known to you.

**Building Houses** 

In order to understand how a house is built we must start at the beginning. The first thing to do is to level the ground and make the foundations. These are usually made of concrete which is poured into trenches dug in the ground. They have to be strong enough to hold up the building, and so it is important to prevent them from cracking or shifting. While the foundations are being built, the main drains must be laid to connect up to the public sewers.

A timber-framed building has concrete foundation walls on top of a footing of concrete, and then timber sills which are anchored to the concrete while it is still wet. In brick-built houses the courses of bricks start on top of the concrete foundations. The first courses of bricks must be built carefully, for the whole house will rest on them Once the foundations and floor are complete, the main part of the house can be built up. In timber-framed houses the main supporting joists are sometimes made of steel or reinforced concrete.

Heavy timbers must be used for supporting the roof and stairs and for door and window frames; for the rest of the structure lighter timber is used. In brick-built houses the walls are built up in double layers and the wooden framework for doors and windows as well as the wooden joists for the floors are incorporated as work goes on.

As the house rises it is necessary to provide scaffolding and platforms for the workers to stand on. This is made of steel tubing with pdfnks laid across, ladders to go up and down, and hoists to lift up the building materials.

The roof of the house may be flat or sloping. Rafters of wood are laid across, which are then covered with slates or tiles. In some places they are called shingles. They may be made of any manenal that is waterproof, including clay, concrete, metal, and asbestos. They are laid so that they overlap and let the water run off. A timber-framed house must be covered with either timber, bricks, or some other covering to finish the walls. There will also probably be an insulating layer of, for instance, glass fibre, to keep the house warm and dry. This will be put in between the living space and the roof to prevent heat escaping upwards. Brick-built houses have insulation put in the cavity between the walls and below the roof.

When the outer shell is complete, work can begin inside the house. The walls are usually lined with plaster. This may be applied straight on to brick walls or it may come in the form of plasterboard, which is attached to the walls on strips of wood called battens. Later it will be painted or papered for decoration; wet plaster must be given a few weeks to dry out before that can be done.

Plastering must be carefully timed to fit in with the work of the plumbers and electricians. Plumbers lay the pipes for the water supply, heating system, and drainage. They also have to fixthe drainage pipes on the outside of the house, which will join up to the drains and sewers, and put in the bathroom and kitchen fittings to which the pipes are connected. Most of these pipes have to be hidden from view in the finished house and so some of the m will be fixed so that they are behind the plaster after it has been applied, and some will be under the floorboards. Similarly, the electric wires and fittings will mostly be embedded in plaster or laid under the floors. Sometimes the wires are encased in plastic tubes which are laid around the edge of the floors and window frames. The plumber and electrician also work together in installing such things as central-heating boilers.

At the same time, carpenters will be working inside the house finishing the wooden floors, staircases, window frames and doors, as well as fitting cupboards. Last of all, the painters and decorators come in to paint the house inside and out.

## 2. Identify the topic of each paragraph of Text 4B.

# 3. Complete the sentences choosing the best variant corresponding to the contents of the text.

- 1) The foundations have to be strong enough
- a) to prevent them from cracking.
- b) to level the ground.
- c) to support the building.
- 2) The house will rest on
- a) a concrete foundation.
- b) the first courses of bricks.

- c) top of a footing of concrete.
- 3) Scaffolding and platforms are provided for the workers
- a) to stand on.
- b) to lift up the building materials.
- c) to go up and down.
- 4) Slates are made of
- a) clay.
- b) wood.
- c) any waterproof materials.
- 5) Drainage pipes are connected to
- a) the bathroom and kitchen fittings.
- b) the drains and sewers.
- c) the floorboards
- 6) The last thing to do in the house is
- a) to install central heating boilers.
- b) to finish the wooden floors, window frames and doors.
- c) to paint the house.

### **HOUSES AND HOMES**

Read the text "Houses and Homes" and find the answers to these questions. Discuss your answers with your groupmates.

- a) How do you know that you are in another country?
- b) What were the reasons to construct blocks of flats?
- c) What problems do people face, living in blocks of flats?
- d) What is the basic idea of home for the English?
- e) How do the English distinguish a flat from a house?
- f) What is the difference between the words house and home?
- g) How does a house qualify as old in Russia and England?

#### Houses and Homes

Every country has its distinctive housing. Cross from England into Scotland or from France into Germany or Spain, and you know instantly that you are in another country. It is partly a natter of architecture, partly a matter of the way people choose to domesticate their immediate surroundings. The English are distinctive in their aversion to flats and their devotion to rows of small brick houses. Travel from Western France across Europe to the Urals and you will see cities surrounded by modern blocks of high-rise flats. The details of architecture will vary, but all countries have found that the obvious solution to cheap new housing to accommodate families moving in from the countryside or demanding improved conditions within the towns is to build blocks of flats. They stand in rows and clusters, not beautiful, not spacious, but convenient and efficient. The problems are similar: noise, cramped public areas, unpredictable water supplies, broken lifts but they are homes for millions of people who prefer them to the more primtive conditions they have left. In England, however, this is not so.

Of course some English people enjoy flat-life, but for the vast majority of them,

the basic idea of home is a brick house with rooms upstairs and downstairs. And already the English have a confusion of terms in translating to and from Russian. The English use the word house for a dwelling intended for one family. They would never say of a block of flats that it is a house, and hence "DOM" has no exact equivalent in English. They always distinguish a flat from a house, not because a house is grander (it may be a tiny section of a row of dwellings) but because the flat is still unusual, except in city centres where it is unusual to live anyway.

The word home is much more personal, much warmer: your home is the place where you live which you have created -- but also its atmosphere, your sense of other people who live in it, your feelings about its past as well as its present. Something of the Russian feeling about the privacy of kitchens is found in the English word home. The Russians have a habit of describing anything built before about 1955 as "old". In England a house does not qualify as old unless it was built at least a hundred years ago. The English atill have hundreds of thousands of really old houses, built between the 14th and 18th centuries scattered throughout the country. They are considered very desirable and are very expensive even if they are small. Many of them are strikingly beautiful. Athe other end of the scale are bungalows, small brick houses of only one storey, built especially for the elderly Many older people move from a house into a bungalow.

#### **STRUCTURAL SYSTEMS**

# 1. Before you read the text "Structural Systems", discuss the following questions with your groupmates or teacher.

- a) Do you know what structural systems are?
- b) What parts of a building can be made from wood?
- c) How does laminated veneer lumber function?
- d) What are I-joists used for?
- e) What advantages do manufactured trusses have?
- f) Why is steel one of the major structural materials?
- g) What structural shapes do you know?
- h) How are steel frames erected at the building site?
- i) What is in situ concrete used for?
- j) What is the oldest framing system?
- k) What is pretensioning?
- 1) What methods are used to join precast elements together?
- m) What is the dominant form of construction in Russia?

## 2. Read the to find out if your answers are right or wrong.

Structural Systems

The structures of buildings are mostly skeleton frames of various types. New domestic housing in many parts of the world today is commonly made from timber-framed construction. Wood products are becoming a bigger part of the construction industry. They may be used in both residential and commercial buildings as structural and aesthetic materials. In buildings made of other materials, wood is still found as a supporting material, especially in roof construction, in interior doors and their frames, nd as exterior cladding.

Laminated veneer lumber functions as beams to provide support over large spans,

such as removed support walls and places where dimensional lumber is not sufficient, and in areas where a heavy load is bearing from a floor, wall or roof above on a short span. Wood I-joists are used for floor joists on upper floors. They are engineered for long spans and are doubled up in places where a wall will be aligned over them. Glued laminated beams are created by glueing the faces together to create beams. By glueing multiple, common sized pieces of lumber together act as one larger piece of lumber. Manufactured trusses are used in home construction as a pre-fabricated replacement for roof rafters and ceiling joists. It is seen as an easier installation and a better solution for supporting roofs as opposed to the use of lumber struts and purlins as bracing.

Steel is one of the major structural materials in buildings. It is a strong and stiff material. It can be quickly fabricated and erected. The lightest and most efficient structural shape is toe bar (or open web) joist, a standard truss made with angles for the top and bottom chords, joined by welding to a web made of a continuous bent rod. It is used almost exclusively to support roofs and can span up to 45 metres. The standard rolled shapes are frequently used as beams and columns, the wide flange, or W shape, being thenmost common. Where steel beams support concrete floor slabs poured onto a metal deck, they can be made to act compositely with the concrete.

Steel columns are joined to foundations with base plates welded to the columns and held by anchor bolts embedded in the concrete. The erection of steel frames at the building site can proceed very rapidly, because all the pieces can be handled by cranes and all the bolted connections can be made swiftly by workers with hand-held wrenches.

Reinforced concrete is also a major structural material in buildings. In situ concrete is used for foundations and for structural skeleton frames. The oldest framing system is the beam and girder system, whose form was derived from wood and steel construction: slabs rest on beams, beams rest on girders, and girders rest on columns in a regular pattern. This system needs much handmade timber formwork, and in economies where labour is expensive other systems are employed. One is the pan joist system, a standardized beam and girder system of constant depth formed with prefabricated sheet-metal forms. The simplest and most economical floor system is the flat plate where a plain floor slab rests on columns spaced apart. If the span is larger, the increasing load requires a local thickening of the slab around the columns.

Concrete columns are of rectangular or circular profile and are cast in plywood or metal forms. The reinforcing steel never exceeds 8 percent of the cross-sectional area to guard against catastrophic brittle failure in case of accidental overloading.

Precast concrete structural members are fabricated under controlled conditions in a factory. Members that span floors and roofs are usually pretensioned, another prestressing technique, which is similar in principle to post-tensioning. Precast prestressed floor elements are made in a number of configurations. These include beams of rectangular cross section, hollow floor slabs, and single- and double-stem T shapes. Precast concrete columns are not usually prestressed and have projecting shelves to receive floor members. At the building site, precast members are joined together by a number of methods, including welding together metal connectors cast into them or pouring a layer of in situ concrete on top of floor members, bonding them together. Precast prestressed construction is widely used, and it is the dominary form of construction in Russia and Eastern Europe

3. Find the paragraph saying about reinforced concrete regarded as one of the major structural materials in buildings and translate it into Russian.

#### 4. Read aloud paragraph 6 of the text.

#### 5. Explain the following references.

- a) They may be used in both residential and commercial buildings as structural and aesthetic materials. What does the pronoun they refer to?
- b) They are engineered for long spans and are doubled up in places where a wall will be aligned over them. What does the pronoun they refer to?
  - c) It is a strong and stiff material. What does the pronoun it refer to?
  - d) Itcan be quickly fabricated and erected. What does the pronoun it refer to?
  - e) It is used almost exclusively to support roofs. What does the pronoun it refer to?
- f) they can be made to act compositely with the concrete. What does the pronoun theyrefer to?
- g) These include beams of rectangular cross section, hollow floor slabs, and single- and double-stem T shapes. What does the pronoun these refer to?

#### 6. Underline or mark the main ideas of the text and retell it in English.

#### **TYPES OF BUILDINGS**

### 1. Read these international words and try to guess their meaning:

Social, function, activity, condition, technique, technological, evolution, minimum, stimulate, industry, standardization, production, mechanization, bulldozer, decoration.

### 2. Read out the following words and memorize them:

an apartment – многоквартирный дом recreational – развлекательный а permanence – постоянство, прочность to tend – направлять an assemblage – сборка, монтаж to erect – сооружать, воздвигать, устанавливать a built-in – вставка, встроенность a load – нагрузка to conceal – скрывать, маскировать a search – поиск expressive выразительный meaningful – многозначительный to suit – удовлетворять resultant – результативный private – частный an excavation – земляные работы, выемка грунта an output – производительность

# 3. Make up 10 sentences with the words given above.

## 4. Read these phrases:

at once – одновременно; to depend upon – зависеть от;

interchangeability of smth — взаимозаменяемость чего-либо; modular design — блочная конструкция (модульное проектирование); to classify according smth — классифицировать согласно чему-то; a minimum of materials — минимальное использование материалов; to protect smb from smth — защищать кого-то от чего-то; the methods by which — методы, с помощью которых; at lower cost — при наименьших затратах; carefully think of smth — тщательно продумывать что-то; in order to do smth — для того, чтобы сделать что-то; to form from — производить из.

#### 5. Match the English words with their Russian equivalents:

- 1. recreational 2. resultant 3. a load 4. meaningful 5. an apartment 6. to conceal 7. a permanence 8. a built-in 9. a search 10. an assemblage 11. to erect 12. a permanence 13. to suit 14. private 15. an excavation
- а. многозначительный b. скрывать c. встроенность d. выемка грунта e. удовлетворять f. развлекательный g. поиск h. результативный i. выразительный j. постоянство, прочность k. частный l. многоквартирный дом m. сооружать n. сборка o. нагрузка

# 6. Combine the words with the help of the preposition of. Translate these word combinations:

word Compinations.	
1. types	a. materials
2. permanence	b. elements
3. character	c. techniques
4. technological development	d. the construction
5. the evolution	e. mechanization
6. maximum	f. buildings
7. combinations	g. built-in cabinets
8. standardization	h. better structures
9. interchangeability	i. society
10. output	j. an apartment
11. the high degree	k. stability
12. a variety	1. a structure
13. the upper part	m. a fixed unit
14. the built-in space	n. parts
15. the extent	o. construction methods

#### 7. Give the three forms of the following verbs:

classify, build, form, influence, condition, dig, tend, lay, think, determine, conceal.

# 8. These words can be used both as verbs and nouns. Make up your own sentences to show the difference in their usage:

load, soil, condition, function, suit, form, influence, desire, change, design, part, aim, cost, contact, work.

#### 9. Write the derivatives of the following words:

suit, education, industry, stable, technology, build, meaning, adapt, change, success, durable, available, firm, careful, consider, satisfy, free.

#### 10. Read the text

# Types of Buildings

Types of buildings depend upon social functions and may be classified according to the role in the Community. The types of buildings may be domestic, educational, office, industrial, recreational, etc. The common and necessary conditions are:

- a) its suitability to use by human beings in general and its adaptability to particular human activities;
  - b) the stability and permanence of its construction.

Speaking of residential construction we must say that the apartment houses are mostly built to suit urban conditions. Group housing provides home for many families and is at once public and private. The techniques of construction or the methods by which structures are formed from particular materials are influenced not only by the availability and character of materials but also by the total technological development of society.

The evolution of techniques is conditioned by two factors:

- 1) one is economic the search for a maximum of stability and durability in building with a minimum of materials, labour and time;
  - 2) the other is expressive the desire to produce meaningful form.

Large housing programmes have tended to stimulate technological change in the building industry. Modular design (i.e. design in which the elements are dimensioned in combinations of a fixed unit) has led to standardization of elements, interchangeability of parts and increased possibilities for mass production, with resultant economies. Entire apartment assemblages are available and are being used to an increasing extent. These techniques aim at a higher output of better structures at lower cost. The high degree of mechanization and standardization is successfully achieved by reinforced concrete blocks and units. Reinforced concrete homes are produced by a variety of construction methods. Various methods of constructing reinforced concrete houses involve extensive use of large sections manufactured in heavily mechanized factories and erected at the site.

In order to build a house first an excavation is dug by bulldozers. Then a foundation is laid to carry the load of a structure and to keep the walls and the floors from the contact with soil. Floors divide a building into storeys and carry the loads too. The upper part of a structure is a roof; it ties a building, gives the firmness to the structure and protects people from rain, wind, snow, etc. Doors, windows, stairs, lifts are integral elements of a building and they are always precast or prefabricated. When a structure is ready builders start to decorate it.

When decoration work is over a building is considered to be finished. The built-in space of an apartment should be carefully thought of as well. There is a considerable trend toward built-in furniture. Rooms should be both efficient and visually satisfying. The extent of built-in cabinets must be determined. Drawers and shelves can often be concealed behind walls, freeing valuable floor space.

# 11. Answer the following questions:

1. What do types of buildings depend upon?

- 2. In what way may be they classified?
- 3. What are the common and necessary conditions?
- 4. What is the function of group housing?
- 5. The evolution of techniques is conditioned by several factors, isn't it?
- 6. What is modular design?
- 7. Why is it used?
- 8. What is the aim of entire apartment assemblages?
- 9. What methods are used to produce reinforced concrete homes?
- 10. Where are large sections manufactured and erected?
- 11. What is necessary to first in order to build a house?
- 12. Why is the foundation laid?
- 13. What is the upper part of a structure?
- 14. What elements are integral?
- 15. Who starts to decorate the structure?
- 16. When is a building considered to be finished?
- 17. What do we call the built-in space of an apartment?
- 18. Should rooms be both efficient and visually satisfying?
- 19. What must be determined?
- 20. Where can be drawers and shelves concealed?

#### 12. Agree or disagree with the following statements:

- 1. Types of buildings may be classified according to a special rule.
- 2. One of the necessary conditions of a building is its adaptability to particular human activities.
  - 3. The apartment houses are mostly built to suit people who live in them.
- 4. The techniques of construction are influenced only by the availability and character of materials.
- 5. Large housing programmes have tended to stimulate technological change in the building industry.
  - 6. Modular design is of no use in our country.
  - 7. The techniques of assemblage are very expensive.
- 8. The high degree of mechanization and standardization is successfully achieved by good work of engineers.
- 9. Large sections manufactured in all building factories are of great use in residential construction.
  - 10. In order to build a house it is necessary to have a project.
  - 11. Floors are used for a flat to be warm.
  - 12. Roofs protect 48 people from cold.
  - 13. When a structure is ready special specialists are invited to decorate it.
- 14. When decoration work is over a commission comes to decide if the dwelling is ready for living.
  - 15. The built-in space of an apartment is not convenient by the living standards.
  - 16. Rooms should be both efficient and adaptable for living in them.

# 13. Complete the sentences according to the text:

- 1. ... upon social functions.
- 2. The types of buildings may be ....
- 3. The apartment houses are mostly built ....

- 4. Group housing provides ... and is at once public and private.
- 5. The methods by which structures are formed from particular materials are influenced by the total .....
  - 6. Large housing programmes have tended to ....
  - 7. Modular design is ... of a fixed unit.
  - 8. ... are available and are being used to ....
  - 9. ... is successfully achieved by reinforced concrete blocks and units.
  - 10. Various methods of constructing ... use of large sections.
  - 11. In order to build a house first ....
  - 12. Floors divide a building into ....
  - 13. Doors, windows, stairs, lifts are integral elements of ....
  - 14. ... toward built-in furniture.

### 14. Choose a word to put into each gap:

public, resultant, technological, private, meaningful, stability, assemblages, techniques, standardization, the load, the firmness, reinforced concrete, interchangeability, foundation, roof, mechanization, precast, built-in, the evolution, permanence, freeing, modular, a building

- 1. Among the common and necessary conditions are ... and ... of the construction.
  - 2. Group housing provides home for many families and is at once ... and ....
  - 3. The ... of construction are influenced by the total ... development of society.
- 4. One of the factures influenced ... of techniques is the desire to produce ... form.
- 5. ... design has led to ... of elements, ... of parts and increased possibilities for mass production, with ... economies.
  - 6. Entire apartment ... are available and are being used to an increasing extent.
- 7. The high degree of  $\dots$  and standardization is successfully achieved by  $\dots$  blocks and units.
- 8. A ... is laid to carry ... of a structure and to keep the walls and the floors from the contact with soil.
  - 9. ... ties a building and gives ... to the structure.
- 10. Doors, windows, stairs, lifts are integral elements of ... and they are always ... or prefabricated.
  - 11. There is a considerable trend toward ... furniture.
- 12. Drawers and shelves can often be concealed behind walls, ... valuable floor space.

#### 15. Find out the information about

- the types of buildings
- the large housing programme;
- the common conditions which is necessary to observe.

#### 16. Prove that:

- the apartment houses are mostly built to suit urban conditions;
- reinforced concrete blocks and units are widely used in construction;
- the built-in furniture is very often used in modern flats.

#### 17. Comment on:

- the evolution of techniques;
- the perspectives of modular design;
- steps of building a house.

#### 18. Imagine that:

- You are one of the members of the state commission. You are to decide if the house is ready for living. What is necessary to pay a special attention to?
  - You are at a lesson. A teacher asks you to describe a house of your dream.

## 19. Comprehensive check. Choose the best alternative according to the text:

- 1. Types of buildings may be classified according to ....
- a) the place in the Community;
- b) the role in the Community;
- c) the position in the Community.
- 2. The stability and permanence of the construction are ....
- a) the obligatory and necessary conditions;
- b) the widely spread and common conditions;
- c) the common and necessary conditions.
- 3. ... to suit urban conditions.
- a) The apartment houses are mostly built;
- b) The new blocks of flats are mostly built;
- c) The houses for one family are mostly built.
- 4. ... and is at once public and private.
- a) Group housing provides home for families with children;
- b) Group housing provides home for poor families;
- c) Group housing provides home for many families.
- 5. The techniques of construction are influenced by  $\dots$ .
- a) the amount of the building materials;
- b) the quality of the materials at a site;
- c) the total technological development of society.
- 6. The economic factor in the evolution of techniques deals with ....
- a) the search for the new building materials which are better in quality and more expensive in price;
- b) the search for a maximum of stability and durability in building with a minimum of materials, labour and time;
  - c) the seat for the new talented engineers, designers and architects.
  - 7. Large housing programmes have tended to ....
  - a) stimulate technological change in the building industry;
  - b) improve the process of building in the country;
  - c) accelerate technological change in the building industry.
  - 8. Modular design has led to interchangeability of parts and ... .
  - a) increased possibilities for mass production;
  - b) increased residential construction in the country;
  - c) increased availability of materials.
  - 9. ... and are being used to an increasing extent.
  - a) Group housing buildings are available;

- b) Domestic and recreational buildings are available;
- c) Entire apartment assemblages are available.
- 10. These techniques aim at a ....
- a) stable output of better structures at acceptable cost;
- b) higher output of better structures at lower cost;
- c) new output of better materials at lower cost.
- 11. The high degree of mechanization and standardization is successfully achieved by ....
  - a) the usage of the new methods of building;
  - b) reinforced concrete blocks and units;
  - c) reinforced units formed from particular materials.
  - 12. Large sections manufactured in heavily mechanized factories ....
  - a) are erected at the site;
  - b) are transported to the site;
  - c) give a great economic effect.
  - 13. In order to build a house ....
  - a) first an excavation is dug by bulldozers;
  - b) first some necessary documentation is worked out;
  - c) first is necessary to receive the permission to do this.
  - 14. ... and to keep the walls and the floors from the contact with soil.
  - a) Necessary materials are used to carry the load of a structure;
  - b) Ground works are done to carry the load of a structure;
  - c) A foundation is laid to carry the load of a structure.
  - 15. The upper part of a structure is a roof which ....
  - a) considers the main part of a house;
  - b) protects people from rain, wind and snow;
  - c) protects people from different accidents.
  - 16. When a structure is ready ....
  - a) tenants can move into their flats;
  - b) builders start to decorate it;
  - c) builders start to improve some defects.
  - 17. There is a considerable trend toward built-in furniture because ...
  - a) rooms should be both efficient and visually satisfying;
  - b) it makes rooms both efficient and visually satisfying;
  - c) it makes rooms modern and comfortable.
  - 18. ..., freeing valuable floor space.
  - a) Built-in wardrobes can often be concealed behind walls;
  - b) All furniture can often be concealed behind walls;
  - c) Drawers and shelves can often be concealed behind walls.

#### RESIDENTIAL AND INDUSTRIAL BUILDINGS

# 1. Read these international words and try to guess their meaning:

Technique, designer, proportion, national economy, political, industry, factor, method, standardization, ventilation, refrigerator, modern, type, laboratory, office building.

## 2. Read and put down the following words to memorize them:

to advocate – пропагандировать to design – проектировать an advance – развитие housing – жилищный, жилье a site – строительная площадка a storage – хранение an advantage – преимущество available – доступный, имеющийся в распоряжении an issue – проблема to affect воздействовать an amenity – удобство to afford позволить (себе) a furnishing – меблировка a mine – шахта a tenant – квартиросъемщик a hangar – ангар, склад a fraction доля to acquire – достигать, приобретать offsite – вне строительной площадки precast – предварительно отлитый, сборный

### 3. Make up 10 sentences with the words given above.

### 4. Read and put down these phrases to remember their meaning:

а standard of living — жизненный уровень; а managerial staff — управленческий аппарат; the prefabricated structures — сборные конструкции; а present-day design — современное проектирование; the technological advance — технический прогресс; а heating system — система отопления; а hot-water supply — горячее водоснабжение; washing machines — стиральные машины; the storage facilities — складские помещения; а site planning — планирование работ на строительной площадке; а building industry — строительная промышленность; а housing — жилищное строительство; large-scale — широкомасштабный.

## 5. Match the English words with their Russian equivalents:

1. a site 2. an amenity 3. a furnishing 4. available 5. a fraction 6. a tenant 7. an advance 8. a hangar 9. an issue 10. a storage 11. to affect 12. to acquire

а. склад b. воздействовать c. проблема d. удобство e. достигать f. хранение g. доля h. доступный i. меблировка j. строительная площадка k. развитие l. квартиросъемщик

# 6. Combine the words with the help of the preposition of. Translate these word combinations:

<ol> <li>a proportion</li> <li>the problems</li> </ol>	a. living b. technological advance
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3. the level	c. reinforced concrete panels
4. the improvement	d. the wall area
5. the concern	e. the labour force
6. new levels	f. glass walls
7. use	g. state
8. the advantages	h. construction
9. a large fraction	i. housing

#### 7. Give the three forms of the following verbs:

develop, grow, constitute, carry, pay, bring, classify, demonstrate, substitute, enlarge.

# 8. These words can be used both as verbs and nouns. Make up your own sentences to show the difference in their usage:

force, place, issue, rise, concern, demand, use, group, design, mark.

**9.** Write the derivatives of the following words: iInclude, large, policy, form, develop, standard, technology, improve, consider, plan.

#### 10. Read the text and do the exercises below.

Residential and Industrial buildings

In technically developed countries the building industry, comprising skilled and unskilled workers in many trades, building engineers and architects, managerial staff and designers employs a considerable proportion of the available labour force.

Building industry, including residential public and industrial construction, holds a considerable place in the National Economy and is being carried on a large scale. It is the largest single industry in the country. The problems of construction have grown into major, political issues in most countries.

Housing is prominent among the factors affecting the level of living. The improvement of the housing represents a concrete and visible rise in the general level of living. In many countries residential construction has constituted at least 12 per cent and frequently more than 25 per cent of all capital formation. Since the USSR home building industry is the concern of the state. The research and development in housing technology is carried out on a national scale and is being paid much attention to.

The ever growing housing demands have brought to life new methods of construction with great emphasis upon standardization, new levels of technological advance, utilizing such techniques as offsite prefabrication, precutting, use of reinforced concrete panels and large-scale site planning. At present, prefabricated structures and precast elements may be classified into two principal groups – for residential houses and industrial buildings.

Present-day design for residential construction envisages all modern amenities for a dwelling. They advocate larger, better built and better equipped flats and houses. Steel was gradually substituted for iron and permitted wider rooms and larger windows. Windows can be enlarged to the extent that they constitute a large fraction of the wall area. There is a marked improvement in the heating and ventilating systems as well as in hot-water supply, kitchen and sanitary fittings. Many tenants now can afford better furnishings, refrigerators, washing machines, etc. A house which is a physical

environment where a family develops is acquiring a new and modern look.

Industrial buildings comprise another significant type of construction. This type of construction involves factories, laboratories, food processing plants, mines, office buildings, stores, garages, hangars and other storage facilities, exhibition halls, etc. Modern industrial buildings have demonstrated the advantages of reinforced concrete arches, metal frames, glass walls and prefabricated standardized mass produced parts.

### 11. Answer the following questions:

- 1. What does building industry employ?
- 2. Why does building industry hold a considerable place in the National Economy?
  - 3. What is prominent among the factors affecting the level of living?
  - 4. Is building industry the concern of the state?
  - 5. Why is it so?
  - 6. What is being paid much attention to?
  - 7. What new building methods are now used in building industry?
- 8. How many principal groups of prefabricated structures and precast elements do you know?
- 9. What changes have taken place in present day designs for residential structures?
  - 10. Is there any improvement in heating and ventilating systems?
  - 11. Who can afford better furnishings, refrigerators, washing machines, etc.?
  - 12. What industrial buildings are mentioned in the text?

## 12. Agree or disagree with the following statements (True / False):

- 1. In technically developed countries work only engineers and architects in the building industry.
  - 2. Building industry is the largest single industry in every country.
  - 3. The problems of construction is of no importance in many countries.
  - 4. Industrial building is prominent among the factors affecting the level of living.
  - 5. Our government pays no attention to the problems of building.
  - 6. The old methods of construction are used now.
- 7. The new methods of construction make great emphasis upon standardization and new levels of technological advance.
  - 8. It is necessary to use offsite prefabrication and precutting.
- 9. Prefabricated structures and precast elements may be classified into three principal groups.
- 10. It is difficult for present-day designs for residential construction envisage all modern amenities for a dwelling.
  - 11. Industrial buildings do not comprise another significant type of construction.
  - 12. This type of construction involves only big factories, plants and buildings
- 13. Modern industrial buildings have demonstrated the advantages of some new building materials.
  - 14. Concrete was gradually substituted for iron.
  - 15. New rooms and windows are the same as they were some years ago.

# 13. Complete the sentences according to the text:

1. Building industry, ... holds a considerable place in the National Economy.

- 2. This industry is ....
- 3. ... have grown into major, political issues in most countries.
- 4. Housing is prominent among the factors ....
- 5. ... has constituted at least 12 per cent of all capital formation.
- 6. ... is being paid much attention to.
- 7. At present, ... may be classified into two principal groups for ....
- 8. Present day designs ... envisage all modern amenities for a dwelling.
- 9. There is a marked improvement in ....
- 10. A house ... where a family develops is acquiring ....
- 11. ... another significant type of construction.
- 12. ... the advantages of reinforced concrete arches, metal frames, glass walls and  $\dots$ 
  - 13. Windows can be enlarged to the extent that ....

### 14. Choose a word to put into each gap:

building, offsite prefabrication, reinforced concrete, tenants, housing, site, issues, technology, frames, residential construction, furnishings, proportion, ventilating, steel, construction, level, amenities, fraction, labour, panels, heating, industrial buildings, enlarged

- 1. In technically developed countries the building industry employs a considerable ... of the available ... force.
  - 2. ... industry is being carried on a large scale.
  - 3. The problems of ... have grown into major, political ... in most countries.
- 4. The improvement of the ... represents a concrete and visible rise in the general ... of living.
  - 5. The research and development in housing ... is being paid much attention to.
- 6. At present it is necessary to utilize such techniques as..., precutting, use of reinforced concrete ... and large-scale ... planning.
  - 7. Present day designs for ... envisage all modern ... for a dwelling.
  - 8. There is a marked improvement in the ... and ... systems.
  - 9. Many ... now can afford better ..., refrigerators, washing machines, etc.
  - 10. ... comprise another significant type of construction.
- 11. Modern industrial buildings have demonstrated the advantages of ... arches, metal ..., glass walls etc.
  - 12. ... was gradually substituted for iron.
- 13. Windows can be ... to the extent that they constitute a large ... of the wall area.

## 15. Choose one topic and write about it (5-10 sentences):

- building industry in our country;
- building industry is the concern of the state.
- problems of construction are very important for every country;
- housing is prominent among the factors affecting the level of living;
- the new methods of construction used in our country.
- the amenities which are in our modern houses;
- the advantages of the new materials which are used in construction.

#### 16. Imagine that:

- Your friend wants to have a new flat in a new house. He asks you to help him to choose a flat. Explain him what is necessary to take into consideration in this case.
- A group of foreign students came to your faculty. It is necessary to tell them about residential and industrial building in our country. Your dean asked you to do this.

### 17. Comprehensive check. Choose the best alternative according to the text:

- 1. In many countries the building industry, comprising ... employs a considerable proportion of the available labour force.
- a) skilled and unskilled workers in many trades, building engineers and architects, managerial staff and designers;
  - b) workers in many trades, building engineers and building engineers;
  - c) skilled and unskilled workers in many trades, managerial staff and designers.
  - 2. Building industry includes ....
  - a) a present-day design;
  - b) residential public and industrial construction;
  - c) technological advance.
  - 3. The problems of construction have grown into ....
  - a) the most important factor in most countries;
  - b) major, political issues in most countries;
  - c) one of the frequently discussed issues in most countries.
  - 4. Housing is prominent among the factors ....
  - a) making life of a man better;
  - b) spoiling the level of living;
  - c) affecting the level of living.
  - 5. In many countries residential construction has constituted at least ...
  - a) 12 per cent and frequently more than 35 % of all capital formation;
  - b) 12 per cent and seldom less than 25 % of all capital formation;
  - c) 12 per cent and frequently more than 25 % of all capital formation.
  - 6. The research and development in housing technology ....
  - a) is being paid much attention to;
  - b) is given the first place in the National Economy;
  - c) is of great importance for everybody.
  - 7. New methods of construction concentrate on ....
  - a) the usage of the new materials;
  - b) new levels of technological advance, use of reinforced concrete panels etc.;
  - c) the rise in the general level of living.
  - 8. Our builders utilize such techniques as ....
  - a) offsite prefabrication, precutting and large-scale site planning;
  - b) prefabricated structures and standardization;
  - c) offsite prefabrication hand labour of workers.
  - 9. Present day design for residential construction envisages ....
  - a) all modern amenities for a dwelling and a garage near it;
  - b) all modern amenities for a dwelling;
  - c) storage facilities near a dwelling.
  - 10. A house is ....
  - a) a tower where a family develops;
  - b) a physical environment for a comfortable living;

- c) a physical environment where a family develops.
- 11. All new houses ....
- a) are similar for the first sight;
- b) have their own image;
- c) acquire a new and modern look.
- 12. Industrial buildings comprise ....
- a) another significant type of construction;
- b) another significant type of image;
- c) the same type of construction.
- 13. Modern industrial buildings have demonstrated the advantages of ...
- a) reinforced concrete units and decorated materials;
- b) metal frames, vibro-rolled panels and glass walls;
- c) reinforced concrete arches, metal frames and glass walls.
- 14. Steel was gradually substituted for iron and ....
- a) gives possibility to build wider kitchens;
- b) permitted wider rooms and larger windows;
- c) permitted wider rooms and larger doors.

#### **CONSTRUCTION PROJECTS**

Read the text "Construction Projects" and answer the following questions. Discuss your answers with your groupmetes.

- a) What does a construction process involve?
- b) What is required for the successful execution of a construction project?
- c) How many types of construction are there?
- d) Who ensures positive end results of construction projects?
- e) Why can the cost of construction vary?
- f) What is the negative outcome of residential construction?
- g) What are the new methods of construction characterized by?
- h) Why is industrial construction a very important part of the construction industry?

## **Construction Projects**

In the fields of architecture and civil engineering, construction is a process that consists of the building or assembling of infrastructure. Far from being a single activity, large scale construction is a feat of multitasking. Normally the job is managed by the project manager and supervised by the construction manager, design engineer, construction engineer or project architect.

For the successful execution of a project, effective planning is essential. Those involved with the design and execution of the infrastructure in question must consider the environmental impact of the job, the successful scheduling, budgeting, site safety, availability of materials, logistics, inconvenience to the public caused by construction delays, preparing tender documents. etc. In general, there are two types of construction: building construction and industrial construction. Each type of construction project requires a unique team to plan, design, construct, and maintain the project.

Building construction is the process of adding structure to real property. The vast majority of building construction projects are small renovations, such as addition of a room, or renovation of a bathroom. The owner of the property often acts as labourer, paymaster, and design team for the entireproject. However, all building construction

projects include some elements in common - design, financial, and legal considerations.

Many projects of varying sizes reach undesirable end results, such as structural collapse, cost overruns, and/or litigation reason. Those with experience in the field make detailed plans and maintain careful oversight during the project to ensure a positive outcome. Residential construction technologies and resources must conform to local building authority regulations and codes of practice. Materials readily available in the area generally dictate the construction materials used (e.g. brick versus stone or timber). The cost of construction on a per square metre basis for houses can vary dramatically based on site conditions, local regulations, economies of scale (custom designed homes are always more expensive to build) and the availability of skilled workers. Residential and all other types of construction can generate a lot of waste, careful planning is needed again here. The popular method of residential construction in the United States is wood framed construction. As efficiency codes have came into effect in recent years, new construction technologies and methods have emerged. University Construction Management departments are on the cutting edge of the newest methods of construction intended to improve efficiency, performance and reduce construction waste. Industrial construction, though a relatively small part of the entire construction industry, is a very important component.

Owners of these projects are usually large, for-profit, industrial corporations. These corporations can be found in such industries as medicine, petroleum, chemical, manufacturing, etc. Processes in these industries require highly specialized expertise in planning, design, and construction. As in building and heavy/highway construction, this type of construction requires a team of individuals to ensure a successful project.

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#### 2.1.10. MY FUTURE SPECIALTY

### OCCUPATIONS IN THE CONSTRUCTION INDUSTRY

- 1. Before reading the text "Occupations in the Construction Industry", discuss these questions with your groupmates or teacher.
  - a) What segments is the construction industry divided into?
  - b) What are the general contractors' responsibilities?
- c) What is the difference between a general contractor and a specialty trade contractor?
- d) What areas of the construction industry are construction trades workers employed in?
  - e) Who assists construction trades workers?
  - f) What are construction managers' duties?
  - g) Who is responsible for completing a project on schedule?

# 2. Read the text to find out if you are right or wrong.

Occupations in the Construction Industry

The construction industry is divided into three major segments. The construction

of buildings segment includes contractors canled general contractors who build residential, industrial, commercial, and other buildings. Heavy and civil engineering construction contractors build sewers, roads, highways, bridges, tunnels, and other projects related to infrastructure. Specialty trade contractors perform specialized activities related to all types of construction such as carpentry, painting, plumbing, and electrical work.

Construction is usually done or coordinated by general contractors who specialize in one type of construction such as residential or commercial building. They take full responsibility for the complete job, except for specified portions of the work that may be omitted from the general contract. Although general contractors may do a portion of the work with their own crews, they often subcontract most of the work to heavy construction or specialty trade contractors.

Specialty trade contractors usually do the work of only one trade, such as painting, carpentry, or electrical work, or of two or more closely related trades, such as plumbing and heating. Beyond fitting their work to that of the other trades, specialty trade contractors have no responsibility for the structure as a whole. They obtain orders for their work from general contractors, architects, or property owners.

Construction trades workers are employed in a large variety of occupations that are involved in all aspects of the construction industry. Brick masons build and repair walls, floors, partitions and other structures with brick, panels, concrete block, stone, and other masonry materials. Carpenters construct, erect, install, or repair structures made of wood, such as partitions, putting in doors and windows, building stairs, and laying floors. Electricians install, connect, test, and maintain building electrical systems which can also include lighting, climate control, security, and communications. Glaziers are responsible for selecting, cutting, installing, replacing, and removing all types of glass. Insulation workers line and cover structures with insulating materials. Panthers and paperhangers stain, varnish, and apply other finishes to buildings and other structures and apply decorative coverings to walls and ceilings. Plumbers install, maintain, and department different types of pipe systems. They may also install heating and cooling equipment and mechanical control systems. Plasterers concrete, and similar materials to interior and exterior walls and ceilings. Roofers repair and install roofs made of tar or asphalt and gravel, rubber or thermoplastic, metal or shingles.

Reinforcing iron and metal workers place and install iron or steel girders, columns, and other structural members to form completed structures or frameworks of buildings, bridges, and other structures. Lastly, construction labourers perform a wide range of physically demanding tasks at construction sites, such as excavation, waste removal, and demolition. Many construction trades workers perform their services with the assistance of helpers. These workers assist trades workers and perform duties requiring less skill. First-line supervisors and managers of construction trades and extraction workers oversee trades workers and helpers and ensure that work is done well, safely, and according to the code. They plan the job and solve problems as they arise. Those with good organizational skills and exceptional supervisory ability may advance to construction management occupations, including project manager, field manager or superintendent. These workers are responsible for getting a project completed on schedule by working with the architect's plans, making sure that materials are delivered on time, assigning work, overseeing craft supervisors, and ensuring that every phase of the project is completed properly and expeditiously They also resolve problems and

make sure that work proceeds without interruptions.

# 3. Find the paragraph describing different construction trades workers' occupations and translate it into Russian.

#### 4. Read aloud paragraphs 2-3.

#### 5. Explain the following references.

- a) they often subcontract most of the work to heavy construction or specialty trade contractors. What does the pronoun they refer to?
- b) They often obtain orders for their work from general contractors, architects, or property owners. What does the pronoun theyrefer to?
- c) These workers assist trade workers. What does the demonstrative adjective these refer to?
- d) Theyalso resolve problems and make sure that work proceeds without interruptions. What does the pronoun they refer to?
- e) They may also install heating and cooling equipment What does the pronoun they refer to?

### 6. Underline or mark the main ideas of Text 3A and retell it in English.

#### **CONSTRUCTION MANAGERS**

# 1. Skim the text "Construction Managers" and try to understand what it is about and what information is new to you.

**Construction Managers** 

Construction managers plan, direct, coordinate, and budget a wide variety of construction projects, including the building of all types of residential, commercial, and industrial structures, roads, bridges, wastewater treatment plants, and schools and hospitals.

Construction managers may supervise an entire project or just part of one. They schedule and coordinate all design and construction processes, including the selection, hiring, and oversight of specialty trade contractors, such as carpentry, plumbing, or electrical, but they do not usually do any actual construction of the structure.

Construction managers are managers who oversee construction supervisors and personnel. They are often called project managers, constructors, construction superintendents, project engineers, construction supervisors, or general contractors. These managers coordinate and supervise the construction process from the conceptual development stage through final construction, on, making sure that the project gets completed on time and within the budget. They often work with engineers, architects, and others who are involved in the process. Given the designs for buildings, roads, bridges, or other projects, construction managers supervise the planning, scheduling, and implementation of those designs.

Large construction projects, such as an office building or an industrial complex, are often too complicated for one person to manage. Accordingly, these projects are divided into various segments: site preparation, including clearing and excavation of he land, installing sewage systems, and landscaping and road construction; building construction, including laying foundations and erecting the structural framework, floors,

walls, and roofs; and building systems, including protecting against fire and installing electrical, plumbing, and air-conditioning systems.

Construction managers may be in charge of one or several of these activities. Construction managers determine the best way to get materials to the site and the most cost-effective plan for completing the project. They divide all required construction site activities into logical steps, estimating and budgeting the time required to meet established deadlines. Doing this may require sophisticated scheduling and cost-estimating techniques using computers with specialized software.

Construction managers also manage the selection of general contractors and trade contractors to complete specific phases of the project which could include everything from structural metalworking and plumbing to painting, installing electricity and carpeting.

Construction managers determine the labour requirements of the project and, in some cases, supervise the hiring and dismissal of workers. They oversee the performance of all trade contractors and are responsible for ensuring that all work is completed on schedule.

Construction managers direct and monitor the progress of construction activities through construction supervisors or other construction managers. They are responsible for obtaining all necessary licenses and, depending upon the contractual arrangements, for directing or monitoring in compliance with building and safety codes, other regulations, and requirements sot by the project insurers. They also oversee the delivery and use of materials, tools, and equipment, workers' safety and productivity, and the quality of the construction.

Working out of a main office or out of a field office at the construction site, construction managers monitor the overall construction project. Decisions regarding daily construction activities are generally made at the jobsite.

Managers might travel considerably when the construction site is not close to their main office or when they are responsible for activities at two or more sites. Management of overseas construction projects usually entails temporary residence in the country in which the project is being carned out.

# 2. Find the information about construction managers' duties and responsibilities in the following areas and describe them:

- a) design process coordination;
- b) supervision of a project;
- c) contractural arrangements;
- d) personnel's selection and overseeing;
- e) construction site activities.

## **CAREERS IN ENGINEERING**

Read the texts below and make your own presentation about your future career.

## Engineering

Engineering is one of the most rewarding professions in the world. A degree in any engineering field can take you all over the world and help you make a nice salary. An engineering degree doesn't just teach you how to be a great engineer, but rather a great manager, businessman, and entrepreneur. Each new project will improve your

skills, teach you how to solve various problems and utilize resources and materials to the best of your abilities. As you start to develop as a professional, you will be working on bigger projects, building higher buildings and helping people.

Being an engineer means you are paid to create and innovate each and every day. During their careers, engineers have to tackle various projects regardless of their area of expertise or education. What's better than that? Whether you're into physics, construction or something else, you will always have the necessary tools to develop your own systems and projects

Engineering degrees are highly respected and engineers are needed all over the world. This means that you can literally work wherever you desire or travel as you would like. Whether you've finished a mechanical, electrical or civil engineering school, your services will be in a high demand.

Like we mentioned earlier, engineers are needed literally everywhere in the world. This means that when you lose one job, there are bound to be a list of other companies hiring. Engineering student who works with software and technology can expect quite a large salary including benefits.

Practically every engineering profession involves hands-on work that will keep you involved throughout the day. You can sit behind a computer if you would like, but getting out there and making new stuff is a breeze in engineering. This makes the profession so much more interesting as students can start developing their own projects before they complete respective university programs.

If you hold one particular engineering degree, that doesn't mean you can't transfer and work in a completely different specialty. Engineering graduate can work wherever he likes regardless of his field of study! Those who are interested in this profession have to be flexible; they have to understand various technical and industrial aspects, to work with various data and perhaps even be involved in the management process and training.

Being an engineer means that you gain a lot of respect just from having the title. Whenever you tell someone you are an engineer, they will know they can trust you to get the job done. While the job has high requirements and presumes continuous development over time, the general public will be grateful.

There are so many engineering jobs out there that wherever you want to work, in whatever industry, you can surely find something good. Even if you can't find a right company in your country, you can search for employment abroad.

#### **CONSTRUCTION ENGINEERING AS A PROFESSION**

#### Read the text below.

Engineering is a well respected profession. In many countries it ranks as one of the most trusted professions. In Russia the demand for engineers is growing, too.

Construction engineering involves the planning and management of the construction of structures such as highways, bridges, airports, railroads, buildings, dams and reservoirs. Civil engineering concerns the design and construction of public and private works, such as infrastructure, bridges and buildings.

To complete projects construction engineers rely on plans and specifications created by architects, engineers and other constructors. To do the job properly construction engineers need the knowledge of many different areas, including engineering, technology, design, mathematics, construction, customer service, management, transportation, public safety and computers.

Construction engineers have a lot of responsibilities. Typically they analyze reports and estimate project costs both in the office and in the field. Other tasks may include: analyzing maps, drawings, blueprints, aerial photography and other topographical information. The engineers must also study ergonomics, analyze static and dynamic characteristics of systems, such as stresses, temperatures, electromagnetic emissions. They must calculate load and grade requirements, liquid flow rates and material stress points to ensure that structures can withstand stress.

Engineers typically include a factor of safety in their designs to reduce the risk of unexpected failure. Keeping a workplace safe is key to having a successful construction company. It is the construction engineer's job to make sure that everything is conducted correctly. Surveying the land while construction is in progress is also the construction engineer's responsibility. They have to make sure that there are no impediments in the way of the structure's planned location and must move any that exist. They also have to test soils and materials used for adequate strength.

Engineering, technology and math are necessary to ensure structures are built to plans and specifications. Most construction engineers have a love for math and science, but many other skills are required too, including critical thinking, problem solving, monitoring and decision making. Engineers have many activities that they must do every day. Those activities include drafting, decision making, computer interaction, communication, documentation, creative thinking, organizing, information collecting, estimating and analyzing. Construction engineers use drafting to design structures and to show others how to build them. They have to analyze information and make the best decision and solve problems.

A typical construction engineering curriculum is a mixture of engineering mechanics, engineering design, construction management and general science and mathematics. One of the most widely used tools in the profession is computer-aided design (CAD) software which enables engineers to create 3D models and 2D drawings. They allow engineers to create models of designs that can be analyzed without having to make expensive and time-consuming physical prototypes.

Construction engineers have to be organized to accomplish goals and prioritize jobs. They have to gather information on the task at hand before they can start a project. In order to keep a project under budget, construction engineers have to estimate costs of materials and workers. Finally, they have to analyze data to find answers to problems they are having on the job site.

Customer service, emotional intelligence, psychology, sociology and management knowledge is necessary to deal with owners, government officials, public stakeholders, subcontractors, suppliers and the general public.

The construction industry is quite a big segment in the Russian Federation and provides employment to millions with all types and levels of education. No doubt, construction engineering graduates will find a lot of opportunities for ambitious careers in this field.

#### **BUILDING ENGINEERING AS A DISCIPLINE**

- 1. Before you read the text, discuss these questions with your groupmates or a teacher.
  - a) Do you know how building construction began?
  - b) Is there any difference between civil engineering and building engineering?

- c) Is building engineering a big subject?
- d) Why is building engineering very important in modern life?
- e) What building engineering courses are usually taught at higher educational institutions?
  - f) What degrees do building engineering academic programmes provide?

#### 2. Read the text to find out if your answers are right or wrong.

The following phases may be helpful: Quite so. Exactly. It's (partly) true. Just the opposite. I don't think so. That's right. That's wrong.

# Building Engineering as a Discipline

Building construction is an ancient human activity. It began with the purely functional need for a controlled environment to moderate the effects of climate. Constructed shelters were one means by which human beings were able to adapt themselves to a wide variety of climates and become a global species.

Building construction today is a significant part of industrial culture, a manifestation of its diversity and complexity and a measure of its mastery of natural forces, which can produce a widely varied built environment to serve the diverse needs of society.

Education in the field of Building Engineering as one of the areas of civil engineering is the study of the integrated application of engineering principles and technology to building design and architecture.

Building engineering is an interdisciplinary engineering subject that offers a general engineering approach to the planning, design, construction, operation, renovation, and maintenance of buildings, as well as with their impacts on the surrounding environment. The discipline requires pertinent knowledge integrated from traditional well-established disciplines: civil engineering for building structures and foundation; mechanical engineering for heating, ventilation and air-conditioning system (HVAC), and for mechanical service systems; physics for building science, lighting and acoustics; electrical engineering for power distribution and control; chemistry and biology for indoor air quality; architecture for form, function and specifications; economics for project management.

Building engineering students are ideally trained in all phases of the life cycle of a building, and learn to appreciate buildings as an advanced technological system requiring close integration of many sub-systems and their individual components. Technical problems and appropriate solutions are studied to improve the performance of the building in areas, such as energy efficiency, construction management, HVAC and control systems, advanced building materials, earthquake resistance, wind effects on buildings, computer-aided design.

The building engineering graduate may work as a consulting engineer, design engineer, project manager, construction manager, cost engineer, facility manager, conservation-utility director, HVAC engineer, operation manager, process engineer, or in research and development, among other career possibilities.

Building engineering academic programmes normally provide an accredited academic degree. The completed degree may be designated as a Bachelor of Engineering, Bachelor of Science, Bachelor of Technology or Bachelor of Applied Science depending upon the university or institute. The length of study is four years and the programme consists of basics of engineering and sciences (technical drawing, engineering mechanics, mechanics of materials, thermodynamics, mathematics,

computer programming, surveying), subjects in building engineering sciences (structural analysis and design, soil mechanics, building engineering systems, building economics, construction management, thermal environment and building service systems). In some programmes, elective courses allow students to specialize in one or more subdisciplines.

Graduates may pursue a postgraduate degree, such as a Master of Engineering, Master of Applied Science, an Engineer's degree, or a Doctor of Philosophy in Engineering. The Master and Engineer's degree may consist of either research, coursework or a mixture of the two. The Doctor of Philosophy consists of a significant research component and it is often viewed as the entry point to academia.

# 3. Find the paragraph about the areas in which building engineering graduates may work and translate it into Russian.

### 4. Read aloud paragraph 3.

#### 5. Explain the following references.

- a) Building construction today is a significant part of industrial culture, a manifestation of its diversity and complexity and a measure of its mastery of natural forces. What does the pronoun its refer to?
- b) Building engineering is an interdisciplinary engineering discipline that offers a general engineering approach to the planning, design, construction, operation, renovations and maintenance of buildings, as well as with their impacts on the surrounding environment. What does the pronoun their refer to?
- c) Building engineering students are ideally trained in all phases of the life cycle of a building, and learn to appreciate buildings as an advanced technological system requiring close integration of many sub-systems and their individual components. What does the pronoun their refer to?
- d) The Master and Engineer's degree may consist of either research, coursework or a mixture of the two. What are those two?
- e) The Doctor of Philosophy consists of a significant research component and it is often viewed as the entry point to academia. What does the pronoun it refer to?

#### FROM THE HISTORYOF BUILDING

#### 1. Read and translate the text.

From the History of Building

Many thousands of years ago there were no houses such as people live in today. In hot countries people sometimes made their homes in the trees and used leaves to protect themselves from rain or sun. In colder countries they dwelt in caves. Later people left their caves and trees and began to build houses out of different materials such as mud, wood or stones.

Later people found otit that bricks made of mud and dried in the hot sunshine became almost as hard as stones. In ancient Egypt especially, people learned to use these sun-dried mud bricks. Some of their buildings are still standing after several thousands of years.

The aacient Egyptians discovered how to cut stone for building purposes. They erected temples, palaces and huge tombs. The greatest tomb is the stone pyramid of

Khufu, king of Egypt. The ancient Egyptians often erected their huge constructions to commemorate their kings or pharaohs.

The ancient Greeks also understood the art of building with cut stone, and their buildings were beautiful as well as useful. They often used pillars, partly for supporting the roofs and partly for decoration. Parts of these ancient buildings can still be seen today in Greece. Whereas the ancient Greeks tried to embody the idea of harmony and pure beauty in their buildings, the Roman architecture produces the impression of greatness, might, and practicalness. The Romans were great bridge, harbour and road builders. In road works the Romans widely used timber piles. They also erected aqueducts, reservoirs, water tanks, etc. Some of their constructions have been reused till now. It is known that the manufacture of lime is one of the boldest industries used by man. Lime is a basic building material used all over the world as today so in the ancient world. Marcus Porcius Cato gave an idea of a kiln for lime, production: it's shape and dimensions. They are rough cylindrical or rectangular structures, built of stone in a hillside with an arched caning at the front to enable the fire to be made and the lime to be withdrawn. Such kilns were fired with wood or coal and were extremely inefficient. There are still many remains of kilns in some places of Great Britain as well as roads and the famous Hadrian wall, which was erected to protect the Romans from the celtic tribes ir the first century A.D. Britain was a province of the Roman Empire for aboat four centuries. There are many things today in Britain to remind the people of the Romans: towns, roads, wells and the words.

By the way, Hadrian, the Roman emperor, was also the one who suggested the absolutely new for that time idea of building the Pantheon with a dome. He constructed it, and alongside with a number of other outstanding buildings such as the Colosseum and the Baths of Caracalla, it is still there in Rome. Many ancient buildings were designed by Hadrian as well as by other Roman emperors. In a period of 800 to 900 years the Romans developed concrete to the position of the main structural material in the empire.

It is surprising, therefore, that after the fall of the Empire, much of thre great knowledge should have disappeared so completely. The knowledge of how to make durable concrete has been lost for centuries, but mention was made of it in the writings of architects from time to time.

Fusion of Roman and North European traditions in construction was reflected in many ways. Buildings combined the Roman arch and the steep peaked roof of Nothern Europe. Roman traditions were continued in the architectural form known as Romanesque. London Bridge, finished in 1209, took thirty-three years to build. It consisted of nineteen irregular pointed arches with its piers resting on broad foundation, which was designed to withstand the Thames current.

The Romanian period was followed by other periods each of which produced its own type of architecture and building materials. During the last hundred years many new methods of building have been discovered. One of the most recent discoveries is the usefulness of steel as a building material.

Nowadays when it is necessary to have a very tall building, the frame of it is first built in steel and then the building is completed in concrete. Concrete is an artificial kind of stone, much cheaper than brick or natural stone and much stronger than they areiThe earliest findings of concrete building fragments belonging to prehistoric times were discovered in Mexico and Peru. The Egyptians in the construction of bridges, roads and town walls employed it. There are evidences that ancient Greeks also used

concrete in the building purposes. The use of concrete by the ancient Romans can be traced back as far as 500 B.C. They were the first to use it throughout the ancient oman Empire on a pretty large scale and many constructions made of concrete remain till nowadays thus proving the long life of buildings made of concrete. Of course, it was not the concrete people use today. It consisted of mud, clay and pure lime, which were used to hold together the roughly broken stone in foundations and walls. It was the so-called "pseudo concrete". The idea of such building material might have been borrowed from the ancient Greeks as some samples of it were found in the ruins of Pompeii.

### 2. A few explanations to the text:

- 1... .pyramid of Khufu ['ku'fu:] пирамида Хуфу
- 2. ...to withstand the Thames current. ...чтобы противостоять течению Темзы.
- 3. .. .but mention was made of it in the writings of architects from time to time но время от времени можно встретить упоминание об этом в работах архитекторов.
  - 4. They were the first to use... они первыми использовали
  - 5. on a pretty large scale— в довольно широких масштабах

### 3. Key vocabulary /expressions:

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art of building — искусство строить brick [brik] — п кирпич borrow ['borou] — v (from) занимать, заимствовать concrete ['konkrit] —п бетон, dome [doum]—п купол dwell [dwel] — v жить, проживать embody [im'bodi] — v олицетворять, воплощать erect fi'rekt] —v возводить, строить find jfaind] — v (out) обнаружить, найти kiln [kiln]— п обжиговая печь, сушильная печь pile [pail] — п свая, столб pillar fpils] — п столб, колонна remains [ri' meinz] — остатки, руины tribe [traib]—п племя
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# 4. Phonetic drill. Read the words paying attention to defferent pronounciation of letter combination ea

- [e] weather, measure, health, ahead, leather, instead
- [ei] great, break, steak, streak
- [i:] team, means, beam, cheap, easy, weak, leave
- [i 3] theatre, realize, appearence, weary, dreary
- [i'ei] permeate, create, delineate

#### 5. Translate the extract into Russian

The term "civil engineering" is usually applied to such activities as the excavation and then the construction of different buildings, bridges, roads, docks, harbours and embankments as well as to the water control by dams and reservoirs, canals and aqueducts, pipelines and the reclamation of land. By the way: What does the

international word "reclamation" mean here? Explain it in the most detailed way in Russian.

# 6. Learn to recognize international words. Give Russian equivalents to the following words without a dictionary

harmony, tradition, decoration, aqueduct, idea, tank, position, reservoir, manufacture, fragment, method, period, structure, arch.

# 7. Find the corresponding Russian meaning of the international words given above in ex.5. Start compiling your own vocabulary of international words.

ex. business ['biznis]

- 1) бизнес, торговля, коммерческая деятельность
- 2) коммерческое, торговое предприятие, фирма
- 3) (выгодная) сделка
- 4) дело, занятие, профессия

## 8. Explain in English the meaning of the following words:

sun-dried mud bricks timber piles pseudo concrete the ruins of Pompeii harmony and pure beauty

### 9. Find in the text equivalent English phrases to the following Russian

доисторические времена римский период бесполезность использования стали в качестве строительного материала грубо обтесанный камень они первыми использовали недавние открытия в довольно широких масштабах

#### HISTORY OF THE BUILDING INDUSTRY

# 1. Skim the text "History of the Building Industry" and try to understand what it is about. Give a brief overview of its structure and contents.

History of the Building Industry

In early times there were few specialist builders. People constructed their homes from whatever material was available where they lived. The only large buildings were communal ones such as granaries and places of worship for their gods. In ancient Egypt, Greece, and Rome, large buildings were financed by the rulers of the country and built by slaves who had been captured in battle.

Stone was used if it was available and where it was not, brick-making industry developed. After the end of the Roman Empire in the 4th century AD there was very little large-scale building done in Europe for about six hundred years. There were two kinds of buildings other than cottages and farm buildings: castles and churches. Building a cathedral was such a vast undertaking that someone was required to organize

all the craftsmen needed for the work. This was usually a master stonemason.

At the time of the Renaissance in the 15th and 16th centuries a new sort of building specialist emerged. He was usually a philosopher or artist, rather than a craftsman, who would get together a team of building workers and make arrangements to pay them. This was the beginning of the profession of architecture. The Industrial Revolution in the 19th century brought to an end the craft traditions in uilding. Many new functional buildings were put up in the big towns that were developing - buildings that were not planned to be beautiful but were there tohouse machinery and the workers who operated it. They had to be built quickly and cheaply. The across the country on the new canals constructed to get the raw materials building materials were brought and railways that were quicklyfor industry and the finished products to the places where they were needed.

When the railways were built, tunnels were dug, and bridges, aqueducts, and roads were built. New materials such as steel were introduced and engineers were trained to use them. Advances in science meant that building designers could calculate in advancehow a building should be constructed to ensure that it would stand up, instead of relying on a system of trial and error, for it sometimes happened that a building would collapse while it was being build.

It was important to calculate accurately the cost of materials. And labour, and there came to be so much competition for doing the work that a system of tendering developed. Different contractors would calculate what it would cost to complete a project and then the lowest estimate would be chosen. The quantity surveyor emerged in the late 19th century as a professional specialist in building finance, who could accurately predict the cost of a project.

In the late 19th century, all kinds of new technological developments affected the building industry. The emergence of the skyscraper in Chicago, United States, was made possible not only by the use of steel framing in the structure, but also by the intention of the elevator, the telephone, and air conditioning.

The present state of building construction is complex. There is a wide range of building products and systems which are aimed primarily at groups of building types or markets. The design process for buildings is highly organized and draws upon research

establishments that study material properties and performance, code officials who adopt and enforce safely standards, and design professionals who determine user needs and design a building to meet those needs. The construction process is also highly organized; it includes the manufacturers of building products and systems, the craftsmen who assemble them on the building site, the contractors who employ and coordinate the work of the craftsmen, and consultants who specialize in such aspects as construction management, quality control, and insurance.

### 2. Identify the topic of each paragraph of the text.

# 3. Complete the sentences choosing the best variant

- 1) In early times people constructed their homes from
- a) stone available.
- b) any material available.
- c) bricks.
- 2) At the time of the Renaissance in the 15th and 16th centuries a new sort of building specialist was

- a) a master stonemason.
- b) a craftsman.
- c) an artist.
  - 3) In the 19th century advances in science meant that
- a) a system of trial and error was relied on.
- b) design calculations were introduced.
- c) new materials began to be used.
  - 4) The construction of the skyscraper was made possible by
- a) the use of steel framing, the invention of the elevator, the telephone, and air conditioning.
- b) the use of steel framing.
- c) the invention of the elevator and air conditioning.
  - 5) Now the construction process is highly organized because
- a) it includes the manufacturers of building products.
- b) it involves design professionals.
- c) it involves different sorts of building experts.

#### **ARCHITECTS**

People need places to live, work, play, learn, shop, and eat. Architects are responsible for designing these places. They work on public or private projects and design both indoor and outdoor spaces. Architects can be commissioned to design anything from a single room to an entire complex of buildings.

Architects plan and design houses, factories, office buildings, and other structures. They spend much of their time in offices, where they develop plans, meet with clients, and consult with engineers and other architects. They also visit construction sites to prepare initial drawings and review the progress of projects to ensure that clients' objectives are met. Architects discuss the objectives, requirements, and budget of a project with clients. In some cases, architects provide various predesign services, such as feasibility and environmental impact studies, site selection, cost analyses, and design requirements.

Architects develop final construction plans after discussing and agreeing on the initial proposal with clients. The architects' plans show the building's appearance and details of its construction. These plans include drawings of the structural system; airconditioning, heating, and ventilating systems; electrical systems; communications systems; and plumbing. Sometimes, landscape plans are included as well. In developing designs, architects must follow state and local building codes, zoning laws, fire regulations, and other ordinances, such as those requiring easy access to buildings for people who are disabled.

Demand for architects with a knowledge of "green design," also called sustainable design, is expected to continue. Architects should be needed to design buildings and structures that efficiently use resources, such as energy and water conservation; reduce waste and pollution; and apply environmentally friendly design, specifications, and materials.

As construction continues, architects may visit building sites to ensure that contractors follow the design, adhere to the schedule, use the specified materials, and meet work-quality standards. The job is not complete until all construction is finished, required tests are conducted, and construction costs are paid. Architects may also help

clients get construction bids, select contractors, and negotiate construction contracts.

Architects use computer-aided design and drafting (CADD) and building information modeling (BIM) for creating designs and construction drawings. However, hand-drawing skills are still required, especially during the conceptual stages of a project and when an architect is at a construction site.

The following qualities are important for architects.

Analytical skills. Architects must understand the content of designs and the context in which they were created. For example, architects must understand the locations of mechanical systems and how those systems affect building operations.

Communication skills. Architects share their ideas, both in oral presentations and in writing, with clients, other architects, and workers who help prepare drawings. Many also give presentations to explain their ideas and designs.

Creativity. Architects design the overall look of houses, buildings, and other structures. Therefore, the final product should be attractive and functional.

Organizational skills. Architects often manage contracts. Therefore, they must keep records related to the details of a project, including total cost, materials used, and progress.

Technical skills. Architects need to use CADD technology to create plans as part of building information modeling (BIM).

Visualization skills. Architects must be able to envision how the parts of a structure relate to each other. They also must be able to visualize how the overall building will look once completed.

Architects often collaborate with workers in related occupations, such as, urban and regional planners, civil engineers, interior designers and landscape architects.

Civil engineers conceive, design, build, supervise, operate, construct, and maintain infrastructure projects and systems in the public and private sector, including roads, buildings, airports, tunnels, dams, bridges, and systems for water supply and sewage treatment.

Interior designers make interior spaces functional, safe, and beautiful by determining space requirements and selecting decorative items, such as colors, lighting, and materials. They read blueprints and must be aware of building codes and inspection regulations, as well as universal accessibility standards.

Landscape architects design parks and the outdoor spaces of campuses, recreational facilities, businesses, private homes, and other open areas.

Urban and regional planners develop land use plans and programs that help create communities, accommodate population growth, and revitalize physical facilities in towns, cities, counties, and metropolitan areas.

To sum up, architects typically do the following: meet with clients to determine objectives and requirements for structures,

prepare structure specifications,

direct workers who prepare drawings and documents,

give preliminary estimates on cost and construction time,

prepare scaled drawings, either with computer software or by hand,

prepare contract documents for building contractors,

manage construction contracts,

visit worksites to ensure that construction adheres to architectural plans, seek new work by marketing and giving presentations.

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## 3. РАЗДЕЛ КОНТРОЛЯ ЗНАНИЙ

## 3.1. ВИДЫ КОНТРОЛЯ

## 3.1.1. ТЕКУЩИЙ КОНТРОЛЬ

Для текущего контроля знаний студентам предлагаются следующие виды работ:

- опрос на занятиях;
- проверка домашнего (внеаудиторного дополнительного) чтения;
- выполнение контрольных переводов;
- выполнение лексико-грамматических тестов при прохождении грамматического материала;

## 3.1.2. РУБЕЖНЫЙ КОНТРОЛЬ

Для рубежного контроля знаний студентам предлагаются следующие виды работ:

- выполнение итоговых упражнений по окончании прохождения тем учебно-профессионального общения;
- выполнение контрольных переводов текстов учебно-профессионального общения;
- выполнение контрольных тестов по окончании прохождения грамматического материала;
- выполнение лексико-грамматических работ или компьютерного тестирования в 1, 2 семестрах.

# 3.1.3. ПРОМЕЖУТОЧНЫЙ КОНТРОЛЬ (УСТНАЯ И ПИСЬМЕННАЯ ФОРМА)

Промежуточный контроль:

- грамматические тесты;
- лексико-грамматические контрольные работы;
- словарные диктанты;
- тесты на аудирование;
- пересказ и письменное изложение аудио- и видеотекстов;
- эссе;
- сочинение;
- устные опросы/беседы по темам;
- презентация темы с использованием программы Power-Point.

## 3.1.4. ТЕКУЩАЯ АТТЕСТАЦИЯ

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 1.1-1.4, 2.1 учебной программы (Тест № 1 темы 1.1-1.3; Тест № 2 темы 1.4, 2.1);
- во втором семестре: выполнение двух тестов по темам 2.2-2.6 учебной программы (Тест № 3 темы 2.2-2.4; Тест № 4 темы 2.5-2.6).

## 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).

## 3.1.5. ИТОГОВЫЙ КОНТРОЛЬ

Итоговый контроль представляет собой обобщение и систематизацию изученного учебного материала по всем аспектам иностранного языка и осуществляется в форме зачета и экзамена.

Форма итогового контроля знаний студентов в 1 семестре — **зачет**. Зачет выставляется по результатам выполнения программы текущего семестра: выполнение программы практических аудиторных занятий, сдача устных тем.

Форма итогового контроля знаний студентов во 2 семестре — экзамен. К экзамену допускаются студенты, выполнившие программу практических аудиторных занятий.

## Структура экзамена:

- 1) чтение и письменный перевод оригинального профессиональноориентированного текста с иностранного языка на русский со словарём. Объём — 1300-1500 печатных знаков. Время выполнения — 45 минут.
- 2) реферирование аутентичного или частично адаптированного научнопопулярного 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.

На зачете и на экзамене проверяется практическое владение иностранным языком в объеме требований программы по каждому этапу обучения.

#### 3.2. ТЕСТЫ И КОНТРОЛЬНЫЕ РАБОТЫ

## ОБРАЗЦЫ ЛЕКСИКО-ГРАММАТИЧЕСКИХ ЗАДАНИЙ ДЛЯ ПРОМЕЖУТОЧНОГО КОНТРОЛЯ

- 1) Explain the function of the ending -s (-es) in each sentence. It can denote:
- a) the 3d person singular of the verb in Present Indefinite Tense; b) the plural form of a noun;
- c) the possessive case of a noun.

terrain.

- 1. The Romans varied the road construction to accommodate local materials and the
- 2. It is impossible that McAdam's initial radical departure from the Telfordian use of stone blocks as a base was due to the lack of suitable stone for block-making in this part of England.
- 3. Highway construction usually follows planning and design, and involves such facilities as pavements, drainage structures and traffic control devices.
- 4. Passenger cars are considered to have no practical effect on a pavement's service life.
  - 5. We receive raw materials from our suppliers.

# 2) Find all passive constructions in the following sentences. Translate the sentences into Russian.

- 1. After the chippings have been spread, they must be compacted into the surface course using a heavy roller.
- 2. The drainage systems are constructed so that they should be able to carry the essential upstream flow to a waterway, river, stream, or the sea.
- 3. Only the European route number, if signposted, will always be placed in white etters on a green rectangle.
  - 4. He said all rubbish had been thrown away.
- 5. A natural rock known as asphalt had been used to construct buildings for many years.

# 3) Find the predicate in each sentence, denote its tense form, voice, and name the infinitive form. Translate the sentences into Russian.

- 1. Has the cable been laid?
- 2. European countries use the metric system on road signs (distances in kilometers or metres, heights/widths in metres) with the notable exception of the UK, where distances are still indicated in miles.
- 3. The Amber Route led from Afghanistan through Persia and Arabia to Egypt, and the

Silk Route stretched 4,000 miles from China across Asia.

- 4. The team was developing new guidelines that assume the benefits of fibre reinforcement and allow the design of thinner pavements.
- 5. In a case of a traffic jam, the drivers will form an emergency lane to guarantee that emergency services can reach the scene of the accident.

## 4) Fill in the gaps with the suitable forms of the verbs "to be" and "to have".

- 1. Traffic signals ... either pre-timed or demand-actuated.
- 2. Drainage ditches ... added to stop the erosion process and avoid wheel ruts.
- 3. Continually improving road building technology ... led to miles of bituminous roadways that ... central to the lifestyle today.
  - 4. ... there much demand for civil engineers these days?
  - 5. New testing methods ... made the process much more efficient.

## 5) Find modal verbs in the following sentences and explain their meaning.

- 1. Only fully qualified electricians should be permitted repairing these appliances.
- 2. The land also had to be surveyed by a professional to determine the most efficient route between two points.
  - 3. Asphalt cement must be free of water or moisture as it leaves the refinery.
  - 4. You could at least have asked me before taking the money.
- 5. If the surface course is too hot the chippings may be pressed too deep into the material effectively losing their purpose as a high friction surface layer.
- 6. The researchers are aware that they need to develop their guidelines so that they can be used in codes.

# 6) Name the tense forms and voices of all infinitives in the following sentences.

- 1. They like to use a subcontractor to maintain this equipment.
- 2. However, work still needs to be done to convince the construction industry to introduce new codes of practice that accept fiber-reinforced RCC.
  - 3. Please remember to check the bill of materials.
- 4. For zero defects to be achieved, we will have to introduce tighter prevention controls.
- 5. The company is said to have been conducting negotiations with contractors for three months already.
- 6. The area is considered to be adequately compacted when the roller movement does not create a noticeable deformation.

# 7) Find Participle I or Participle II in each sentence, translate the sentences into Russian.

- 1. In original usage, a "road" was simply any pathway fit for riding.
- 2. The oldest engineered road discovered is the Sweet Track causeway in England, dating from around 3800 BC.
- 3. Weak soils may also be stabilized with additives such as Portland cement and quicklime, or dug out and replaced with imported soils.
- 4. Road signs are often made retro-reflective or even illuminated in rare circumstances.
  - 5. Many causeways are tidal, being covered for a period surrounding high tide.

# 8) Name the type of the conditional in each sentence, translate the sentences into Russian.

- 1. If you had made the reservation in advance, you would be free now.
- 2. If you follow these measures, the risk of burns will be substantially reduced.
- 3. If you hadn't sealed the container, the vapor would have contaminated the

environment.

- 4. If you combined these two substances together, there would be a serious risk of explosion.
  - 5. If rubber is cooled to -200°C, it becomes brittle and will break.
  - 6. If safety measures had been followed, the accident would never have happened.

## 9) Transform the following sentences into the indirect speech.

- 1. "I will have translated the article by Monday", he promised.
- 2. The tutor asked the students, "Collect all papers and put them on my table!"
- 3. "What time does the train usually start?" he asked.
- 4. The contractor said, "I insist on finishing all outside works till next Saturday".
- 5. "Have you heard about the clashes in Turkey?" she asked.
- 6. The policeman said to a child, "Don't cross the road without your parents! You're too small yet!"

## 10) Read the text and be ready to answer the questions following it.

## Bridges

- 1. A bridge is a structure designed to provide continuous passage over a physical obstacle such as waterways, deep valleys, or transportation routes. Bridges commonly carry highways, railroad lines, and pathways, but may also carry water, power cables, or telecommunication lines. Designs of bridges vary, depending on the function of the bridge and the nature of the terrain where the bridge is constructed.
- 2. Some special types of bridges are defined according to their function. In structures such as highways or railroad lines an overpass elevates one route to provide clearance to traffic on the lower level. Aqueducts also belong to bridge structures and are used for the transportation of water. A viaduct carries a railroad or highway over a land feature, such as a valley, that can obstruct passage. The earliest bridges were simple structures created by spanning a gap with timber or rope. Designs became more complex as builders developed new construction methods and discovered better materials.
- 3. Bridge designs differ in the way they support loads, especially the weight of the bridges themselves and the weight and stresses of the vehicles crossing them. There are basically eight common bridge designs which differ in appearance, construction methods and materials used, as well as in the way they deal with the forces of tension or compression they are subject to.

## **Questions**

- 1. What is a bridge?
- 2. What do bridges commonly carry?
- 3. What does the design of bridges depend on?
- 4. What are the special types of bridges and their functions?
- 5. Why did the design of bridges become more complex?
- 6. What are the functions of aqueducts and viaducts?
- 7. How many designs of bridges can you name?
- 8. What are the basic differences between different types of bridges?

# I. Choose the proper variant. 1. I used to wear ... when I went to school. a) this glasses b) these glasses 2. We should protect ... from pollution. a) the environment b) environment c) an environment 3. Judy goes to ... by bus. a) work b) a work c) the work 4. I saw you yesterday playing .... a) tennis b) a tennis c) the tennis 5. Nigel opened a drawer and took out .... a) photos b) a photos c) some photos 6. Did you learn to play ...? a) violin b) a violin c) the violin 7. I need to buy ... a) a bread b) a loaf bread c) a loaf of bread d) breads 8. I was watching TV at home when suddenly ... rang. a) a doorbell b) an doorbell c) doorbell d) the doorbell 9. Most of the stories that people tell about ... aren't true. a) an Irish

10. Why are you listening to ... music.

b) the Irishc) Irishd) a Irish

- a) so terribleb) such terrible
- c) such a terrible

PRONOUNS  I. Choose the proper variant.  1) When I rang Jane some time last week, she said she was busy day. a) that b) the c) this
<ul><li>2) There's use in complaining. They probably won't do anything about it.</li><li>a) a few</li><li>b) a little</li><li>c) few</li><li>d) little</li></ul>
<ul><li>3) It's a nice house but there's garden.</li><li>a) no</li><li>b) any</li><li>c) the</li></ul>
<ul><li>4) I like classical music but not all.</li><li>a) most</li><li>b) some</li><li>c) no</li></ul>
5) I have hardly spare time. a) no b) some c) any
<ul><li>6. Have you had enough to eat, or would you like something?</li><li>a) another</li><li>b) else</li><li>c) new</li><li>d) other</li></ul>
<ul><li>7. I can't go out with you. I haven't got to wear.</li><li>a) anything</li><li>b) something</li><li>c) nothing</li></ul>

- 8. Everyone enjoyed ... at the picnic.
- a) themselves
- b) themself
- c) himself

<ul><li>9. Have you read interesting lately?</li><li>a) something</li><li>b) any</li><li>c) anything</li></ul>	
<ul><li>10. I can't see my glasses?</li><li>a) anywhere</li><li>b) nowhere</li><li>c) somewhere</li></ul>	
<u>VERBS</u>	
<ul> <li>I. Choose the proper variant.</li> <li>1. This isn't my first visit to London. I here before.</li> <li>a) I'm</li> <li>b) I've been</li> <li>c) I was</li> </ul>	
<ul><li>2. I've got my key. I found it when for something else.</li><li>a) I looked</li><li>b) I've looked</li><li>c) I was looking</li></ul>	
<ul><li>3. Sorry, I can't stop now to an important meeting.</li><li>a) I go</li><li>b) I'm going</li><li>c) I've gone</li></ul>	
<ul><li>4. When Michael the car, he took it out for a drive.</li><li>a) had repaired</li><li>b) has repaired</li><li>c) repaired</li><li>d) was repairing</li></ul>	
<ul><li>5 the form? – No, not quite.</li><li>a) Did you fill in</li><li>b) Have you filled in</li><li>c) Had you filled in</li></ul>	
<ul><li>6. I you twice yesterday.</li><li>a) have phoned</li><li>b) had phoned</li><li>c) phoned</li></ul>	
<ul><li>7. When I got home the children their homework.</li><li>a) were doing</li><li>b) was doing</li><li>c) did</li></ul>	

- 8. How long ... married?a) have they beenb) did they bec) do they be
- 9. When I was 14 years old I ... in for tennis.
- a) I go
- b) I was going
- c) I went
- 10. Who ... my scarf? It looks a bit dirty.
- a) had been wearing
- b) had worn
- c) has been wearing
- d) wore

## **MODAL VERBS**

## I. Choose the proper variant.

- 1. I... get Sophie on the phone. I've been trying all afternoon.
- a) may not
- b) must not
- c) can not
- 2. ... I have more pie, please?
- a) Could
- b) Shall
- c) Will
- d) Would
- 3. The children are sleeping. We ... make a noise.
- a) couldn't
- b) mustn't
- c) needn't
- d) wouldn't
- 4. ... you like to go out with us?
- a) Do
- b) Should
- c) Will
- d) Would
- 5. I'm quite happy to walk. You... drive me home.
- a) don't
- b) haven't
- c) mustn't
- d) needn't

6. It's rather late. I think you ... better go. a) had b) have c) should d) would 7. The chemist's was open, so luckily I ... buy some aspirin. a) can b) can't c) did can d) was able to 8. ... you please tell me the way to Trafalgar Square? a) Could b) Shall c) Would 9. What ... I do to improve my speech habits? a) shall b) must c) need 10. You ... have kept yourself under control. a) must b) had to c) might **ADJECTIVES AND ADVERBS** I. Choose the proper variant. 1. My brother is four years ... than me. a) older b) elder c) more elder 2. They lived in a ... house. a) modern wonderful brick b) wonderful modern brick c) brick modern wonderful 3. This government has taken some measures to solve the problems of .... a) the poor b) the poor people c) poor 4. I'm pleased the plan worked so .... a) good

- b) goodly c) well 5. They performed the experiment .... a) scientifically b) scientific
- 6. I'm getting ....
- a) angry
- b) angrily
- 7. We ... missed the train.
- a) mostly
- b) near
- c) nearest
- d) nearly
- 8. My new job is great. I like it ... better than my old one.
- a) more
- b) most
- c) much
- d) very
- 9. The people here are ... than I expected.
- a) more nice
- b) most nice
- c) nicer
- d) nicest
- 10. In fact I feel a ... depressed about it sometimes.
- a) piece
- b) bit
- c) quite
- d) slightly

## **INFINITIVE AND GERUND**

## I. Choose the proper variant.

- 1. I'm thinking ... my job.
- a) to change
- b) of changing
- c) about changing
- 2. Try ...late.
- a) not to be
- b) don't be
- c) not be

3. She lets her daughter very late. a) to stay up b) stay up c) staying up
<ul><li>4. He was made back the money?</li><li>a) to pay</li><li>b) pay</li><li>c) paying</li></ul>
5. They enjoyed a) to dance b) dancing c) dance 6. I want her happy. a) be b) to be c) being
7. She's nice a) to talk to her b) to talk to c) talking to her
8. This form is ink. a) to fill in b) to be filled in c) to filled in
<ul><li>9. I sat down</li><li>a) to rest</li><li>b) for resting</li><li>c) for to rest</li></ul>
10. She's good at a) sing b) signing c) to sing

# **PREPOSITIONS**

# I. Choose the proper variant.

- 1. He saved money ... giving up cigarettes.
- a) by
- b) of
- c) with
- 2. Let's go and have coffee ... Marcel's.

a) to
b) at
c) in
3. She looks much younger this photo.
a) at
b) on
c) in
4. See you
a) next Friday
b) on next Friday
c) at next Friday
5. Jill is the person I'm angry
a) at
b) about
c) with
6. There was a fall 10 per cent in prices.
a) at
b) of
c) in
d) by
7. The bus journey costs more now. They've put the fares
a) up
b) down
c) out
d) over
Q I'm gaing to be leter the meeting
8. I'm going to be late the meeting. a) at
b) for
c) in
d) to
9. It's late. How much longer are you going to go working?
a) along
b) through
c) on
d) with
10. My shoes are dirty. I'd better take them before I come in.
a) away
b) off
c) through
d) with

# 3.3. КРИТЕРИИ ОЦЕНИВАНИЯ РАБОТЫ СТУДЕНТОВ

# 1. Оценка перевода.

Уровни	Бал-	Чтение
3 ровии	лы	Henre
	0	Отсутствие перевода или отказ от него
I. Низкий	1	Перевод текста на уровне отдельных словосочетаний и предложений при проявлении усилий и мотивации.
(рецептив- ный)	2	Неполный перевод текста (менее 90 %). Допускаются грубые искажения в передаче содержания. Отсутствует правильная передача характерных особенностей стиля переводимого текста.
II. Удовлет- ворительны й	3	Неполный перевод (90 %). Допускаются грубые смысловые и терминологические искажения. Нарушается правильность передачи характерных особенностей стиля переводимого текста.
(рецептивно -репродук- тивный)	4	Полный перевод. Допускаются грубые терминологические искажения. Нарушается правильность передачи характерных особенностей стиля переводимого текста.
III. Средний (репродук-	5	Полный перевод. Допускаются незначительные искажения смысла и терминологии. Не нарушается правильность передачи стиля переводимого текста.
тивно-про-	6	Полный перевод. Отсутствуют смысловые искажения. Допускаются незначительные терминологические искажения. Нарушается правильность передачи характерных особенностей стиля переводимого текста
IV. Доста- точный	7	Полный перевод. Соблюдается точность передачи содержания. Отсутствую терминологические искажения. Допускаются незначительные нарушения характерных особенностей стиля переводимого текста.
(продуктив- ный)	8	Полный перевод. Отсутствуют смысловые и термино-логические искажения. В основном соблюдается правильная передача характерных особенностей стиля переводимого текста.
V. Высокий (продуктив-	9	Полный перевод. Отсутствуют смысловые и термино-логические искажения. Правильная передача характерных особенностей стиля переводимого текста.
ный, твор- ческий)	10	Полный перевод. Отсутствуют смысловые и термино-логические искажения. Творческий подход к передаче характерных особенностей стиля переводимого текста.

# 2.Оценка понимания при чтении. Показатели оценки чтения.

Уровни	Балл	Чтение
I. Низкий	0	Отсутствие ответа или отказ от ответа.
(рецептивный)	1	Понимание менее 30% основных фактов и смысловых связей

	между ними.						
2	Понимание	30%	основных	фактов	И	смысловых	связей
	между ними.						

II. Удовлетвори-	3	Понимание менее 50% основных фактов и смысловых связей							
тельный (рецеп-	)	между ними.							
тивно-репродук-	4	Понимание 50% основных фактов текста и смысловых							
тивный)	7	связей между ними.							
III. Средний	5	Понимание большинства основных фактов текста,							
_	<i>J</i>	смысловых связей между ними и отдельных деталей текста.							
(репродуктивно- продуктивный)	6	Понимание всех основных фактов текста, смысловых связей							
продуктивный	U	между ними и 50% деталей текста.							
IV. Достаточ-	7	Понимание всех основных фактов текста, смысловых связей							
, ,	/	между ними и 70% деталей текста.							
ный (продуктив- ный)	8	Понимание всех основных фактов текста, смысловых связей							
ныи)	0	между ними и 80% деталей текста.							
V. Высокий	9	Понимание всех основных фактов текста, смысловых связей							
	9	между ними и 90% деталей текста.							
(продуктивный, творческий)	10	100-процентное понимание основных фактов текста,							
творческии)		смысловых связей между ними и деталей текста.							

## 3. Оценка письменных тестов.

100% - 95% правильных ответов	10 баллов
94,8% – 90% правильных ответов	9 баллов
89,6% – 83% правильных ответов	8 баллов
82,6% - 75% правильных ответов	7 баллов
74,6% - 65% правильных ответов	6 баллов
64,7% - 50% правильных ответов	5 баллов
49,7% – 35% правильных ответов	4 балла
34,7% - 20% правильных ответов	3 балла
19,7% – 10% правильных ответов	2 балла
9,7% - 1,8% правильных ответов	1 балл
1,4%-0% правильных ответов	0 баллов

Наименьшая положительная оценка -4 балла - выставляется при правильном выполнении не менее 2/3 заданий. Отсутствие работы или отказ от выполнения соответствуют оценке 0 баллов.

В курсе используется рейтинговая система обучения. Основная идея этой системы — повышение творческого начала всех участников педагогического процесса, максимальная индивидуализация обучения, резкая интенсификация и активизация самостоятельной работы студентов, прежде всего, на основе принципа интегральной многобалльной рейтинговой оценки знаний. Балл рейтинга состоит из суммы балов за посещение практических занятий, активное участие на занятиях, выполнение домашних заданий, творческий подход к выполнению заданий, письменный перевод текстов, сдачу устных тем, участие в СНК, зачет/экзамен.

## 4. ВСПОМОГАТЕЛЬНЫЙ РАЗДЕЛ

#### 4.1. СЛОВАРИ

## **English Vocabulary for Construction Engineers**

#### All-In Rate

An all-in rate is the overall cost of an item comprising all direct and indirect costs. These would cover the cost of materials transported to site, conversion, waste, unloading, handling, storage and preparing for use. You can again locate this term often used in the financial sector.

#### Allocation

The act of dividing or distributing funds from one account or appropriation to one or more accounts or appropriations.

#### **Architect of Record**

The term represents the name of the architect, or the architectural firm whose name is registered on a building permit issued for a specific project on which they have performed services. While an 'architect of record' may not actually do the design for the construction project, they have contract authority for the project and are permitted by the state.

## Batter (Walls)

Battered wall is a wall that has been designed with an intentional slope. Some architects prefer this design to provide structural strength while others choose it for an aesthetic appeal.

# **Bearing capacity**

Whenever a load is placed on the ground, such as from a building foundation, a crane, or a retaining wall, the ground must have the capability to hold it without extra settlement or failure. Bearing capacity is the capacity of soil to support the loads that apply to the ground above. Deeper the depth of embedment of the load, stronger will be the bearing capacity.

### **Best Value Method**

It is a construction procurement process which allows clients to choose contractors for their projects based on performance criteria, such as quality, reliability and expertise, rather than just price to assess value.

#### Bid

A bid is an offer to undertake a construction project based on design specifications and documents at a specified price. Price proposal is often based on the design specification and documents.

### **BIM**

BIM is an acronym for Building Information Modeling. It is a 3D modeling process that integrates visual information with data about specifications, materials, functionality, and maintenance to provide all project participants a unified view of the project and all its components. It features details of the building, from its general structural layout to its minor detail.

#### **Blue Prints**

Blueprints are construction drawings that incorporate all the details that are expected in a project. It shows how a building is to be designed, what materials are to be employed, and placing doors and windows.

#### **Bond**

A financial tool utilized to finance capital projects via long-term borrowing, typically issued by governments or corporations.

## **Budget Transfer**

The process of transferring budgeted funds from one financial unit to another.

## **BOQ** (Bill of Quantities)

This document is issued to tenderers during the pricing phase and facilitates them in the calculation of construction costs for their project. It ensures that competing contractors price the items of work on the same basis and reduces the risk of uncertainty.

# **Building code**

A set of regulations governing the construction of buildings and other structures

## **Building permit**

A document issued by a local government that allows construction or renovation to take place

## CAD (computer-aided design)

Architectural software that digitally creates precise 2D drawings and 3D models. It is better, quicker, easier and less expensive than manual drafting options.

## Cantilever

A cantilever is a structural element that protrudes horizontally out of a wall, edge beam, or a column and is supported at only one end.

### **Cash Flow**

The income and expenditure pattern of a company or individual, impacting the amount of cash available at any given time.

## **Cast in place Concrete**

Cast-in-place concrete is a construction technique where a temporary formwork is prepared to shape concrete slabs and foundations, as well as components such as beams, columns, walls, roofs, and so on, until it hardens. It is also known as 'poured-in-place' concrete.

## Catastrophic failure measurements

The term catastrophic failure refers to an accident in the construction process that destroys a building or structure. It makes it unsafe for use unless the entire structure is rebuilt.

## **Cavity Wall**

Also known as hollow wall, cavity wall is constructed with two distinct walls separated by an air space. These two walls act like a single wall and are joined by metal ties. They offer good sound insulation property.

# Chargeback

An expense incurred by one governmental unit, fund, or department, or a private individual, firm, or corporation, which will subsequently be reimbursed in cash or equivalent.

# **Chartfield String**

A financial code used to uniquely identify the deposit or removal of funds. It

consists of Department/Fund/Account/Program/Class/Project/Chargeback Code.

## **Cladding**

Cladding is any material fixed to outside of a structure to form non-structural external surfaces that cover its exterior. Just as your skin protects internal bones and organs, cladding protects against the elements and shields against environmental conditions or to make it look more attractive.

#### **Claim Schedule**

A schedule of invoices submitted by a state department to the Controller for payment to specific claimants.

### **Concrete Cover**

Concrete cover, in reinforced concrete, is the minimum thickness of concrete embedded over the reinforcement steel. It is measured from the exposed concrete surface to the closest reinforced steel surface. Concrete cover protects the steel from harmful influences such as aggressive solutions and fire.

## **Concrete Slab**

It is a common structural element that is used to create flat horizontal surfaces such as floors, roof decks, ceilings made of cast concrete. It is usually of constant thickness.

### **Construction Build-Out**

Construction Build-Out is changing or modifying an existing commercial space to make it more functional for the tenant occupying the space.

## **Construction Drawings**

Construction drawings are the final pre-construction drawings of the entire building that are incorporated into tender documentation. These drawings guide the construction process by depicting a structure's dimensions, installation materials and other factors. They are prepared by architects and engineers.

## **Construction Estimate**

Construction estimating is the assessing of all the costs of building a structure to determine the feasibility of the project. These costs include direct costs, indirect costs, overhead costs and a profit margin for the general contractor.

## Construction Management at Risk (CMAR)

It is an innovative approach to construction project delivery methods where the project owner hires a construction manager early in the process to serve as a representative and consultant during the project. The Construction Manager further manages the project throughout each phase, ensuring it stays on budget and on schedule.

# **Construction Documents (CD Phase)**

Detailed plans indicating how to construct the physical spaces of a building, including all drawings, specifications, and addenda associated with a specific construction project.

# **Constructability Review**

A review of plans and specifications, conducted either by a contractor or third-party reviewer, to ensure the accuracy and proper detail of construction plans.

Leadership in Energy and Environmental Design (LEED) - A sustainable design approach utilizing materials, construction practices, efficient building design, and other techniques to minimize environmental impact.

## **Cross Bracing**

Cross bracing is a structural component comprising reinforcements crossed shaped in an X-shape used to improve the endurance of a structure. It limits the

building's lateral movement, thus increasing the building's capability to withstand seismic activity.

### **CSI Master Format**

The CSI Master Format is a standardized system of numbers and titles used to organize construction information into a consistent sequence. By providing a consistent list of titles and numbers, Master Format improves the retrieval of information and communication in construction projects. It enables uniform organization of information in project manuals, project cost data, and technical data, thereby promoting standardization.

#### **Cut and Fill**

Cutting and filling is the process of moving earth from one place to another to make the ground more level. A 'cut' is made when earth is cut from above the desired ground height and a 'fill' is when earth is used to fill a whole to desired ground level. It is regularly used in constructing a road, railway, building, or canal.

## **Damp Proofing**

Damp proofing is a coating applied to building walls and floors to restrict the movement of moisture through walls and floors. The barrier may be provided either horizontally or vertically in floors or walls, and may comprise flexible materials such as bitumen, mastic asphalt, bituminous felts, plastic or polythene sheets, metal sheets, cement concrete.

#### **Dead Load**

Dead load is the self-load of the structure because of its complete weight. They are the permanent loads which are constantly present. It includes the weight of the structure, cladding, fixed equipment, etc.

## Diagrid

Diagrid (diagonal + grid) is a structural reinforcement technique used to create triangular structures placed in diagonal grids. It requires less structural steel than a conventional steel frame.

### **Elevation**

A building elevation is an orthographic two dimensional projection of the exterior faces of a building. It refers to the 'front' of the building. Usually there are 4 main elevations: North, South, West, & East.

#### **Encasement**

Encasement is the coating or covering of building components, interior and exterior to prevent future physical damage.

# **Expenditure Transfer**

The process of reallocating an expense after the fact.

### **Falsework**

It is a temporary structure used to provide temporary support to structures during construction until the structure can support itself. It is chiefly used for large arch structures and bridges.

### Field Measure

Field measure is a survey where measurements are taken of an existing structure to ensure that each component will fit as intended within the space. It improves the overall accuracy of the installation.

## Floor Plan

Floor plans are scale drawings that show the arrangements of room, spaces and physical features viewed from one level of a structure. They provide a way to visualize how people will move through space.

## **Footing**

Footing is the lowest load-bearing portion of a building that transfers the load from the foundation to a larger soil area. It supports the foundation, prevents settling, and provides support for the structure.

## Formwork

Formwork is a type of temporary mold or open box into which fresh concrete is to cast the required shape of concrete. It cautiously supports the reinforced concrete until it has reached adequate strength.

### **Foundation**

The base on which a building is constructed, often made of concrete or masonry

## **Framing**

The structure of a building, including the wall studs, floor joists, and roof rafters

#### **General Fund**

The primary state fund into which non-dedicated revenues are deposited, and from which most state expenditures are made.

## Girder

Girders are the main horizontal structural member with the capacity to support larger concentrated loads, such as columns or beams. It can be made from a variety of construction materials such as concrete, stainless steel, or a combination of both and may comprise a single piece or over one piece bound.

#### **HVAC**

HVAC stands for heating, ventilation and air conditioning. It is a system designed to achieve the environmental requirements of the comfort of occupants and a process. It uses electricity and coolant liquid to reduce the temperature of the air, while sending hot air outside and cold air inside. They are more used in different buildings such as industrial, commercial, residential and institutional buildings.

### **Insulation**

Material used to prevent the loss of heat or cold from a building, such as fiberglass or spray foam.

### **Joist**

Joists are horizontal structural members that run across a building foundation, walls, and structural beams. It acts like the skeleton of a building.

### Lean construction

It is a construction method conducted to manage and improve the construction process with minimum cost and maximum value by considering customer needs. Lean construction ensures that a project is instantly done, and lower costs are incurred during the building process.

#### Lease-leaseback

It is a project delivery method under which a company sells the asset it owns to a lease-leaseback entity and the lease-leaseback entity causes the construction of the facility on said property and subleases the facility back to the company. This sale and leaseback transaction is done on mutual understanding of both parties, and all the terms and conditions are predefined in an agreement.

#### Lien

A construction is a type of security interest in which contractors, subcontractors or any person who supplied services to a construction project may secure payment if payment is not forthcoming via the construction pyramid. It protects professionals from the risk of not being paid for services rendered.

#### Live Load

Live load is the load to which a structure is subjected besides its own weight, such as people, the action of wind on an elevation, furniture, vehicles, and so on.

## Load-bearing wall

Load-bearing walls are walls that are constructed to support the weight of a floor or roof structure. These walls are constructed using concrete, blockwork and/or brick and transfers load from other parts of the structure to the foundations.

## **Lookout (architecture)**

Lookouts are wooden joists or rafters on the ridge of a roof that extends beyond an end wall of a building in a cantilever-like manner.

## **MEP** engineer

The acronym MEP stands for "mechanical, electrical and plumbing." So an MEP engineer is an engineer who has a written agreement to offer mechanical, electrical, and plumbing engineering services to the said firm.

# Moling

Moling is a trenchless method that is used to install underground pipes, cables, and ducts. It avoids the need to dig a trench.

## **Monocrete Construction**

Monocrete is a building construction method that uses modular bolt-together precast concrete wall panels.

#### Mortar

Mortar is a homogenous mixture of cement, sand and water that provides joints to build brick or block walls. It is applied as a paste which then sets hard. Mortar is a homogenous mixture of cement, sand and water. Different mortars are used in masonry construction based on their applications, binding materials, strength, bulk density and their purposes.

## **Negotiated Procurement**

It is a method of procurement where the government directly negotiates a contract with a legal supplier without formal price competition or formal advertising. It is allowed in cases of two failed biddings, emergency cases, small value procurement, lease of venue for official use, and so on.

# **Pay Applications**

In construction, the term pay application refers to a group of supporting documents exchanged between contractors and subcontractors during payment and is governed by a constructed contract. The contract varies per project and should provide

detail on the form to use, documents to include, and application timing and deadlines.

## **Performance Gap**

A performance gap is an instance where the expected work progress does not match to the results on site. This could be because of environmental, workmanship, or occupant reasons.

## **Plumbing**

The system of pipes, drains, and fixtures used to supply and distribute water and remove waste from a building.

### **Precast Concrete**

Precast concrete is a type of concrete that is prepared, cast and cured off-site. It is prepared by casting concrete in a recyclable cavity then it is next mended in a contained environment, transported to the construction site and maneuvered into place. It is mostly used for structural components such as wall panels, beams, columns, floors, staircases, pipes, tunnels, and so on.

## **Preliminary Design (PD Phase)**

Plans showing the physical spaces and attributes of a building, including doors, windows, walls, and other features, further developed from the initial concept.

## **Project Cost**

The total amount of funds spent to complete a project, including construction expenses.

## **Project Manager**

The project manager is an experienced construction professional who handles the entire management of the construction project. They inspect all prospects of the building process, particularly project deliverables, schedules, and accounts.

# **Purchase Order (PO)**

A request form necessary when purchasing equipment, materials, or supplies from a vendor.

# **Purchase Order Amendment (POA)**

A form required when the final invoice amount varies from the original Purchase Order (PO) amount.

#### Purlin

Purlins are the principal components of roof structures. They are horizontal beams employed for immediate structural protection in buildings.

## **PVC**

PVC, which stands for Polyvinyl Chloride, is a rigid solid sheet that's resistant to weathering, chemicals and corrosive environments. PVC sheets are very easy to fabricate and you can also install it with conventional tools.

# **Quantity Take-off**

Quantity take-offs are a detailed measurement of materials and labors held by estimators during the pre-construction phase. It helps the project developers have full knowledge of what to expect during the construction phase.

#### Rafter

Rafters are a series of sloped structural components of a roof construction that extends from the ridge or hip of the roof designed to support the roof desks, roof coverings, and its associated loads.

# Reflected ceiling plan (RCP)

Reflected ceiling plan (RCP) is an architectural drawing where the plan of a ceiling is projected on a flat plane showing the placement of various objects like sprinklers, smoke detectors, and any other mechanical or electrical objects on the ceiling using symbols.

## **Reinforced concrete**

Reinforced concrete is a composite material in which concrete is embedded with reinforcement to compensate for the concrete's relatively low tensile strength and ductility. This combination is made to use the compressive strength of concrete and tensile strength of steel, hence, work together to resist many types of loading.

The term reinforced is used because the steel reinforces the concrete and makes it an even stronger construction material.

## **Request for Information (R.F.I.)**

An R.F.I. (request for information) is a formal process for gathering information about products, services, or suppliers during the construction process to clarify the details of a project.

## Request for Proposal (R.F.P.)

A request for proposal (R.F.P.) is a business document that announces a project, describes it, and solicits bids from qualified contractors to complete it. These requests are typically sent out by either the owner or general contractor.

## **Revenue Bond**

A bond payable from a specific revenue source and not pledged with the full faith and credit of an issuer with taxing power. Pledged revenues can be derived from the project, grants, excise or other specified taxes, and typically do not require voter approval before issuance.

#### **Rim Joist**

A rim joist is a board that runs perpendicular to the floor joists and end joists, supports the weight of the walls and provides lateral support for the joists. They are the final joists that end the series of framing joists and disperse the weight of the building across the entire expansion.

### **Roofing**

The materials and techniques used to create a weatherproof cover for the building's roof, such as shingles or tiles.

### Rubblization

Rubblization is a unique means of construction technique that is used to repair the damaged concrete pavement. It employs a machinery that will break apart the concrete into rubbles and leave it in its place to become base layer for new Section Drawing. Section drawing shows a view of a structure as though it had been cut vertically along another imaginary plane. It reveals the interior profile, materials used, walls, and so forth, providing a view of the structure that is not usually seen.

## **Schematic Design (SD Phase)**

A conceptual plan showing the location of program spaces at a scaled size, providing a basic overview of the proposed building design.

## **Siding**

The materials used to cover the exterior walls of a building, such as wood, vinyl, or brick.

## Skirting

Skirting is a strip that covers the lowest part of an interior wall covering the joint

between the wall surface and the floor. Skirting also protects the wall from kicks, abrasion and furniture; and can serve as a decorative moulding.

#### Slab

A flat, level surface made of concrete, often used as a foundation for buildings.

## **Specifications**

Specifications are a part of the construction contract that describes the products, materials, and work required by a construction contract. They detail the work, materials, and installation required to complete a project. These specifications are used as a reference to ensure the correct fulfillment of each project requirement. They include prescribed materials, methods, and quality of work. Specifications follow a format that typically aligns with the Construction Specification Institute (CSI) standards.

#### Studs

Stud is a vertical repetitive framing member that forms part of a wall and offers support. They are a fundamental component of frame construction and are usually made of timber.

#### **Subcontract**

A subcontract is a secondary contract between a party employed to do a specific part of a job and a third party which agrees to do that part of that job. Construction companies often subcontract for the electrical work, plumbing, along with others.

#### **Subfloor**

The layer of flooring material laid on top of the floor joists but beneath the finished flooring, such as carpet or hardwood.

## **Substructure**

It is an underlying structure of the building that is constructed below the ground level. It transfers loads received from superstructure to support soil and safeguard the building against the forces of wind, uplift, soil pressure and others. Elements of substructure include foundation and basement retaining walls.

## **Superstructure**

Superstructure is the portion of a building that is constructed above ground level. It bears different loads operating on the structure. It includes columns, beams, door and window schedules, flooring, roofing, and so forth.

### **Tender**

Tender is a submission made by a contractor in response to an offer or invitation to bid for a project within a finite deadline. It makes an offer for the supply of goods or services.

#### **Trombe Wall**

A Trombe wall is a wall with high thermal mass that incorporates the concept of indirect-gain to achieve energy efficient design. It is painted in dark color and provides heat by absorbing thermal energy from incident sunlight and storing it.

### **Trusses**

A truss is a structure framework fabricated from straight pieces of metal or timber connected at pin joints or nodes to form a series of triangles lying in a single plane. By connecting a series of trusses together, an enormous amount of weight can be safely transferred to load-bearing beams, walls, or to the ground directly.

## Underpinning

Underpinning is repairing, strengthening, or increasing the depth of a foundation

of an existing building or other structure by lowering the footing to allow it to rest on more supportive soil. It is required when the original foundation is no longer strong enough to support the house.

## Vapor barrier

A material used to prevent the passage of moisture into a building, such as plastic sheeting or foil-backed paper.

## **Zoning**

Zoning relates to government regulations that guide what can and cannot be built on any property. It controls how the land can be developed and what purposes the zoned land can serve.

## Wiring

The electrical system of a building, including the wiring, switches, and outlets.

## **Construction acronyms**

ABC – Architecture, construction and engineering

BOQ – Bill of quantities

BRT – Business roundtable

CA – Construction agent

CHST – Construction health and safety technician

C&R – Construction and repair

CPT – Competent personal training

CQC – Contractor quality control

CM – Construction management or manager

CMAR – Construction management at risk

DCR – Daily construction report

HUD – Housing and urban development

IFB – Invitation for bid / Information for bidders (duplicate acronym)

IPD – Integrated project delivery

LID – Low impact development

RTT – Request for tender

 $SOW-Scope\ of\ work$ 

TI – Tenant improvement

VDC – Virtual design and construction

WBS – Work breakdown structure (added, as there were only 19 items in the original list)

## 4.2. УЧЕБНАЯ ПРОГРАММА ДИСЦИПЛИНЫ

P-1 2023

Учреждение образования «Брестский государственный технический университет»

**УТВЕРЖДАЮ** 

Первый проректор БрГТУ

М.В.Нерода

1 23.06 2025

Регистрационный № УД- 23-1-019 /уч.

## Иностранный язык (английский)

Учебная программа учреждения высшего образования по учебной дисциплине для специальностей:

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497-07-0731-02 Архитектурный дизайн (%)

н 6-05-0732-02 Экспертиза и управление недвижимостью (%)

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ст 7-07-0732-01 Строительство зданий и сооружений (профилизация – Производство строительных изделий и конструкций) (№)

п.7-07-0732-01 Строительство зданий и сооружений (профилизация - Промышленное и гражданское строительство) (Ф), (3), (3),

Учебная программа составлена на основе учебных планов, разработанных на основе типовых учебных планов, для специальности «Архитектура» (утвержденного Министерством образования Республики Беларусь 15.02.2023, регистрационный № 7-07-07-010/пр.), для специальности «Архитектурный дизайн» (утвержденного Министерством образования Республики Беларусь 15.02.2023, регистрационный № 7-07-07-011/пр.), для специальности «Экспертиза и управление недвижимостью» (утвержденного Министерством образования Республики Беларусь 15.02.2023, регистрационный № 6-05-07-055/пр.), для специальности «Строительство зданий и сооружений» (утвержденного Министерством образования Республики Беларусь 13.02.2023, регистрационный № 7-07-07-009/пр.), с учетом типовой учебной программы «Иностранный язык», утвержденной Министерством образования Республики Беларусь 15.04.2008, регистрационный № ТД-СГ.013/тип.

#### СОСТАВИТЕЛИ:

Боровикова Н.А., старший преподаватель кафедры иностранных языков, магистр педагогических наук;

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Куличик Н.С., преподаватель кафедры иностранных языков.

## РЕКОМЕНДОВАНА К УТВЕРЖДЕНИЮ:

Кафедрой иностранных языков В.И.Рахуба В.И.Рахуба (протокол № 10 от <u>23.05.2023</u> );	
Методической комиссией строительного факультета Председатель методической комиссии (протокол № 06 от 31.05, 3033);	_ В.И.Юськович
Научно-методическим советом БрГТУ (протокол № <u>6</u> от <u>23.06.202</u> );	
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#### 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 на основе Концепции обучения иностранным языкам в системе непрерывного образования Республики Беларусь, концепции языкового образования, а также с учетом типовой учебной программы для высших учебных заведений № ТД-СГ.013/тип. от 15.04.2008, и указанными в ней нормативными документами.

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, учебнопознавательной 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.

Достижение главной цели предполагает овладение иноязычным общением в единстве всех его компетенций, функций и форм, что осуществляется посредством взаимосвязанного обучения всем видам речевой деятельности, а также овладения технологиями языкового самообразования.

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:

- 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;
  - читать литературу на иностранном языке по профилю обучения;
- использовать иностранный язык в качестве инструмента профессиональной деятельности: перевод, реферирование и аннотирование профессионально ориентированных и научных текстов, выступление с публичной речью, составление деловой документации;

#### ВЛАДЕТЬ:

- навыками чтения и перевода со словарем иностранной литературы по профилю обучения;
- навыками устной речи на иностранном языке на повседневные темы и по профилю обучения;
  - навыками делового письма на иностранном языке по профилю обучения.

# План учебной дисциплины для дневной формы получения высшего образования

Код специальност и (направления специальност и)	Наименование специальности (направления специальности)	Курс	Семестр	Всего учебных часов	Количество зачетных единиц	1	план	ствии с ном УЕ	учебн	10	на курсовой проект (работу)	Форма текущей аттестации		
7-07-0731-01	Архитектура	1	2	120	3	68	_	_	68	-	_	зачет		
		2	3	72	2	30	_	_	30	-	_	зачет		
7-07-0731-02	Архитектурный	1	1	120	3	68	_	_	68	-	_	зачет		
	дизайн	1	2	72	2	34	_	_	34	-	_	экзамен		
6-05-0732-02	Экспертиза и управление недвижимостью	1	1	110	3	50	_	_	50	_	_	зачет		
		• 1	• •	• 1		1	2	110	3	50	_	_	50	_

	Строительство зданий и	1	1	100	3	50	_	_	50	_	_	зачет
7-07-0732-01	сооружений (профилизация – Автомобильные дороги)	1	2	100	3	50	_	_	50	_	_	экзамен
	Строительство зданий и сооружений	1	1	100	3	50	ı	_	50	_	_	зачет
7-07-0732-01	(профицизация —	1	2	100	3	50	-	_	50	_	_	экзамен
	Строительство зданий и сооружений	1	1	100	3	50	-	_	50	_	_	зачет
7-07-0732-01	(профилизация – Промышленное и гражданское строительство)	1	2	100	3	50	ı	_	50	_	_	экзамен

# План учебной дисциплины для заочной формы получения высшего образования

Код специальност и (направления специальност и)	Наименование специальности (направления специальности)	Курс	Семестр	Всего учебных часов	Количество зачетных единиц	l	план	ствии с ном УЕ	учебн	Семинары	на курсовой проект (работу)	Форма текущей аттестации
7-07-0732-01	Строительство зданий и сооружений (профилизация – Промышленное и гражданское строительство)	1	1	100	3	10	_	_	10	_	_	зачет
		1	2	100	3	10	_	_	10	_	_	экзамен

План учебной дисциплины для заочной формы получения высшего образования, интегрированного со средним специальным образованием

Код специальност и (направления специальност и)	Наименование специальности (направления специальности)	Курс	Семестр	Всего учебных часов	Количество зачетных единиц			твии с юм УЕ	учебн	pbl	на курсовой проект (работу)	Форма текущей аттестации
7-07-0732-01	Строительство зданий и сооружений (профилизация – Промышленное и гражданское строительство)	1	1	100	3	10	_	_	10	_	_	зачет
		1	2	100	3	10	_	_	10	_	_	экзамен

# 1. СОДЕРЖАНИЕ УЧЕБНОГО МАТЕРИАЛА

1.1. ДЛЯ СПЕЦИАЛЬНОСТЕЙ «АРХИТЕКТУРА», «АРХИТЕКТУРНЫЙ ДИЗАЙН» (для дневной формы получения высшего образования:

МОДУЛЬ 1. Социально-бытового и социокультурного общения.

ТЕМА 1.1. Учеба в вузе – новый этап в моей жизни:

Изучающее чтение: Новый этап в моей жизни.

Грамматический материал: местоимения: личные, притяжательные, возвратные, указательные

Ознакомительное чтение: 1) Мой рабочий день. 2) Мой выходной день.

Беседа по УТ «Новый этап в моей жизни».

ТЕМА 1.2. БрГТУ в системе высшего инженерного образования Республики Беларусь:

Изучающее чтение: Брестский государственный технический университет.

Грамматический материал: глагол, спряжение глаголов to be, to have в Present, Past, Future Indefinite. Оборот there + to be.

Ознакомительное чтение: 1) Английские университеты. 2) Оксфорд и Кембридж. 3) Высшее образование в Великобритании.

Беседа по УТ «БрГТУ в системе высшего образования Беларуси».

## ТЕМА 1.3. Республика Беларусь в современном мире:

Изучающее чтение: Республика, в которой я живу.

Грамматический материал: глагол, времена группы Indefinite (Present, Past, Future) действительного залога.

Ознакомительное чтение: Мой родной город.

Беседа по УТ «Республика Беларусь в современном мире».

## ТЕМА 1.4. Социально-политический портрет Великобритании:

Изучающее чтение: Что я знаю о стране изучаемого языка.

Грамматический материал: глагол, времена группы Continuous (Present, Past, Future) действительного залога.

Ознакомительное чтение: 1) Соединённое Королевство. 2) Лондон. 3) Британский музей.

Беседа по УТ «Социально-политический портрет Великобритании».

МОДУЛЬ 2. Модуль профессионального общения.

TEMA 2.1. Моя будущая профессия / специальность и ее значение в экономическом развитии Республики Беларусь:

Изучающее чтение: Инженерное искусство.

Грамматический материал: глагол: времена группы Perfect (Present, Past, Future) действительного залога.

Ознакомительное чтение: Будущее профессии инженера.

Беседа по УТ «Моя будущая профессия / специальность».

#### ТЕМА 2.2. Современное градостроительство:

Изучающее чтение: Строительные материалы.

Грамматический материал: глагол: страдательный залог.

Ознакомительное чтение: 1) Архитектура и архитектор. 2) Архитектура 20 века.

## ТЕМА 2.3. Современные города:

Изучающее чтение: Энергосберегающая ландшафтная архитектура.

Грамматический материал: глагол: Согласование времен.

Ознакомительное чтение: Жилищная архитектура.

#### ТЕМА 2.4. Основные архитектурные этапы:

Изучающее чтение: 1) Египетская архитектура. 2) Греческая архитектура.

3) Римская архитектура. 4) Византийская архитектура. 5) Готический стиль.

Грамматический материал: глагол: Модальные глаголы.

Ознакомительное чтение: 1) Ренессанс. 2) Период Барокко. 3) Неоклассицизм.

#### ТЕМА 2.5. Здание и его элементы:

Изучающее чтение: 1) Виды зданий. 2) Фундамент. 3) Виды строительных материалов.

Грамматический материал: имя прилагательное и наречие: степени сравнения.

Ознакомительное чтение: 1) Качество строительных материалов. 2) Вентиляция. 3) Каркас здания.

# 1.2. ДЛЯ СПЕЦИАЛЬНОСТИ «ЭКСПЕРТИЗА И УПРАВЛЕНИЕ НЕДВИЖИМОСТЬЮ» (для дневной формы получения высшего образования:

МОДУЛЬ 1. Социально-бытового и социокультурного общения.

#### ТЕМА 1.1. Новый этап в моей жизни:

Изучающее чтение: Студенческая жизнь – новый этап в моей жизни.

Ознакомительное чтение: Рабочий день студента.

Грамматика: имя существительное, множественное число имён существительных, притяжательный падеж; артикль; артикль с именами собственными.

ТЕМА 1.2. БрГТУ в системе высшего образования Республики Беларусь:

Изучающее чтение: БрГТУ в системе высшего образования Республики Беларусь.

Ознакомительное чтение: 1) Высшее образование в Великобритании. 2) Британские университеты.

Грамматика: местоимения, притяжательные местоимения, much/many, (a) little/(a) few, some/any/no; имя числительное.

## ТЕМА 1.3. Республика Беларусь в современном мире:

Изучающее чтение: Республика, в которой я живу.

Ознакомительное чтение: 1) Мой родной город. 2) Праздники Беларуси.

Грамматика: имя прилагательное, наречие, образование и употребление, степени сравнения, сравнительные конструкции.

### ТЕМА 1.4. Социально-политический портрет Великобритании:

Изучающее чтение: Что я знаю о стране изучаемого языка.

Ознакомительное чтение: 1) Соединенное Королевство. 2) Соединенные Штаты Америки.

Грамматика: видо-временные формы глагола, спряжение глаголов to be, to have в Present, Past, Future Indefinite; оборот there + to be; порядок слов в предложении.

## МОДУЛЬ 2. Модуль профессионального общения.

TEMA 2.1. Моя специальность и ее значение для экономического развития Республики Беларусь:

Изучающее чтение: 1) Профессия инженера. 2) Занятость в строительной отрасли.

Ознакомительное чтение: 1) Будущее инженерной профессии. 2) Инженерное проектирование зданий.

Грамматика: видо-временные формы глагола, времена группы Indefinite, Continuous, Perfect и Perfect Continuous действительного залога; типы вопросов.

## ТЕМА 2.2. Строительные материалы:

Изучающее чтение: 1) Материалы, используемые в строительстве. 2) Инженерные материалы. 3) Бетон. 4) Современные металлы. 5) Пластик.

Ознакомительное чтение: 1) Эпоха пластика. 2) Цветные металлы. 3) Кирпич.

Грамматика: видо-временные формы глагола, времена группы Indefinite, Continuous и Perfect страдательного залога; особенности перевода пассивных конструкций на русский язык.

#### ТЕМА 2.3. Строительство:

Изучающее чтение: 1) Стили строительства. 2) Конструктивные системы. 3) Проектирование зданий. 4) Фундамент.

Ознакомительное чтение: 1) Здания и жилые дома. 2) Нанотехнологии и строительство. 3) Каркасное строительство. 4) Фундамент жилых и промышленных зданий.

Грамматика: условные предложения I, II, III, смешанного типов.

## ТЕМА 2.4. Архитектура:

Изучающее чтение: 1) Из истории строительства. 2) Архитектура: формы и функции.

Ознакомительное чтение: 1) Что подразумевается под биоклиматической архитектурой. 2) Дом. 3) Из истории человеческого жилища. 4) Представления о современной архитектуре.

Грамматика: модальные глаголы.

ТЕМА 2.5. Обследование:

Изучающее чтение: 1) Геодезические методы.

Ознакомительное чтение: 1) Геодезическая съёмка. 2) Геодезическое оборудование.

Грамматика: неличные формы глагола: инфинитив, герундий, причастие, особенности перевода на русский язык.

1.3. ДЛЯ СПЕЦИАЛЬНОСТИ «СТРОИТЕЛЬСТВО ЗДАНИЙ И СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ – АВТОМОБИЛЬНЫЕ ДОРОГИ)» (для дневной формы получения высшего образования:

МОДУЛЬ 1. Социально-бытового и социокультурного общения.

## ТЕМА 1.1. Новый этап в моей жизни:

Изучающее чтение: Студенческая жизнь – новый этап в моей жизни.

Ознакомительное чтение: Рабочий день студента.

Грамматический материал: имя существительное, артикли, имя прилагательное, числительные, глагол (действительный залог во всех временных формах).

#### ТЕМА 1.2. Республика Беларусь в современном мире:

Изучающее чтение: Республика, в которой я живу.

Ознакомительное чтение: Праздники в Беларуси.

Грамматика: наречия, страдательный залог во всех временных формах.

### ТЕМА 1.3. Социально-политический портрет Великобритании:

Изучающее чтение: Географическое положение, климат, политическая система и

государственное устройство, население, экономика, обычаи и традиции, культура Великобритании.

Ознакомительное чтение: Система образования в Великобритании.

Грамматика: неличные формы глагола.

ТЕМА 1.4. БрГТУ в системе высшего образования Республики Беларусь:

Изучающее чтение: БрГТУ: история, структура, специальности. Моя будущая специальность.

Ознакомительное чтение: Система высшего образования в РБ.

Грамматика: модальные глаголы, согласование времен.

МОДУЛЬ 2. Модуль профессионального общения.

ТЕМА 2.1. Строительные материалы для строительства дорог:

Изучающее чтение: 1) Типы и виды строительных материалов. 2) Асфальт. Качество асфальта. 3) Дорожное покрытие.

Ознакомительное чтение: 1) Бетон совершенствует строительство дорог. 2) Качество тротуарных дорог.

Грамматика: сослагательное наклонение.

## ТЕМА 2.2. Из истории дорожного строительства:

Изучающее чтение: 1) Дороги Древнего Рима и их виды. 2) Римские дороги в Британии.

Ознакомительное чтение: 1) Система дорог инков. 2) Древний транспорт.

Грамматика: союзы, предлоги места и времени, прямая и косвенная речь.

### ТЕМА 2.3. Виды дорог:

Изучающее чтение: 1) Типы дорог. Шоссе. Автострада. 2) Автомагистраль. Дамба. 3) Пересечение дорог и перекрёстки.

Ознакомительное чтение: 1) Скоростная автострада. 2) Городской транспорт.

Грамматика: причастные и деепричастные конструкции.

#### ТЕМА 2.4. Современное дорожное строительство:

Изучающее чтение: 1) Технология дорожного строительства. 2) Техническое обслуживание дорог. Тестирование дорожного покрытия.

Ознакомительное чтение: 1) Контроль дорожного движения.

Грамматика: инфинитивные конструкции.

### ТЕМА 2.5. Моя будущая специальность:

Изучающее чтение: 1) Моя будущая специальность. 2) Строительные профессии.

Ознакомительное чтение: 1) Великие инженеры-строители прошлого.

Грамматика: Условные предложения. Повторение и обобщение.

1.4. ДЛЯ СПЕЦИАЛЬНОСТЕЙ «СТРОИТЕЛЬСТВО ЗДАНИЙ И СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ — ПРОИЗВОДСТВО СТРОИТЕЛЬНЫХ ИЗДЕЛИЙ И КОНСТРУКЦИЙ)»; «СТРОИТЕЛЬСТВО ЗДАНИЙ И СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ — ПРОМЫШЛЕННОЕ И ГРАЖДАНСКОЕ СТРОИТЕЛЬСТВО)» (для дневной формы получения высшего образования:

МОДУЛЬ 1. Социально-бытового и социокультурного общения.

### ТЕМА 1.1. Новый этап в моей жизни:

Изучающее чтение: Студенческая жизнь – новый этап в моей жизни.

Ознакомительное чтение: Рабочий день студента.

Грамматика: имя существительное, артикли, имя прилагательное, числительные, глагол (действительный залог).

### ТЕМА 1.2. БрГТУ в системе высшего образования Республики Беларусь:

Изучающее чтение: БрГТУ: история, структура, специальности.

Грамматика: наречия, глагол (страдательный залог).

### ТЕМА 1.3. Республика Беларусь в современном мире:

Изучающее чтение: Республика, в которой я живу.

Ознакомительное чтение: Праздники в Беларуси.

Грамматика: неличные формы глагола.

### ТЕМА 1.4. Социально-политический портрет Великобритании:

Изучающее чтение: Географическое положение, климат, политическая система и государственное устройство, население, культура.

Ознакомительное чтение: Обычаи и традиции Великобритании.

Грамматика: модальные глаголы, согласование времен.

### МОДУЛЬ 2. Модуль профессионального общения.

### ТЕМА 2.1. Строительные материалы: общая характеристика:

Изучающее чтение: 1) Типы и виды строительных материалов. 2) Асбест. 3) Производство силиката. 4) Железобетон.

Ознакомительное чтение: Механические свойства строительных материалов.

Грамматика: сослагательное наклонение.

### ТЕМА 2.2. Цемент:

Изучающее чтение: 1) Производство цемента. 2) Виды цемента.

Ознакомительное чтение: Основания, фундаменты.

Грамматика: союзы, предлоги места и времени.

#### ТЕМА 2.3. Бетон:

Изучающее чтение: 1) Виды бетона. 2) Требования к бетону. 3) Железобетон и железобетонные конструкции.

Ознакомительное чтение: Транспортные механизмы.

Грамматика: прямая и косвенная речь.

### ТЕМА 2.4. Методы строительства:

Изучающее чтение: 1) Крупноблочное строительство. 2) Крупнопанельное строительство. 3) Каркасное строительство.

Ознакомительное чтение: Современные методы строительства.

Грамматика: причастные и деепричастные конструкции.

### ТЕМА 2.5. Здание и его элементы:

Изучающее чтение: 1) Здание и его элементы. 2) Требования к зданиям. 3) Типы зданий. 4) Жилые и промышленные здания.

Ознакомительное чтение: Строительные коды.

Грамматика: инфинитивные конструкции.

### ТЕМА 2.6. Моя будущая специальность:

Изучающее чтение: 1) Моя будущая специальность. 2) Из истории строительства.

Ознакомительное чтение: Строительные профессии.

Грамматика: типы вопросов (повторение).

1.5. ДЛЯ СПЕЦИАЛЬНОСТИ «СТРОИТЕЛЬСТВО ЗДАНИЙ И СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ — ПРОМЫШЛЕННОЕ И ГРАЖДАНСКОЕ СТРОИТЕЛЬСТВО)» (для заочной формы получения высшего образования и для заочной формы получения высшего образования, интегрированного со средним специальным образованием):

МОДУЛЬ 1. Социально-бытового и социокультурного общения.

ТЕМА 1.1. БрГТУ в системе высшего образования Республики Беларусь:

Изучающее чтение: БрГТУ: история, структура, специальности.

Грамматика: глагол (действительный залог во всех временных формах).

### ТЕМА 1.2. Республика Беларусь в современном мире:

Изучающее чтение: Республика, в которой я живу.

Ознакомительное чтение: Праздники в Беларуси.

Грамматика: страдательный залог во всех временных формах.

### ТЕМА 1.3. Социально-политический портрет Великобритании:

Изучающее чтение: Географическое положение, климат, политическая система и государственное устройство, население, культура.

Ознакомительное чтение: Обычаи и традиции Великобритании.

Грамматика: неличные формы глагола.

МОДУЛЬ 2. Модуль профессионального общения.

### ТЕМА 2.1. Строительные материалы: общая характеристика:

Изучающее чтение: Типы и виды строительных материалов.

Ознакомительное чтение: Механические свойства строительных материалов.

Грамматика: сослагательное наклонение.

### ТЕМА 2.2. Цемент:

Изучающее чтение: Производство цемента.

Ознакомительное чтение: Основания, фундаменты.

Грамматика: модальные глаголы.

### ТЕМА 2.3. Бетон:

Изучающее чтение: Виды бетона.

Ознакомительное чтение: требования к бетону.

Грамматика: согласование времен.

### ТЕМА 2.4. Методы строительства:

Изучающее чтение: Современные методы строительства. Ознакомительное чтение: Крупнопанельное строительство.

Грамматика: прямая и косвенная речь.

### ТЕМА 2.5. Здание и его элементы:

Изучающее чтение: Здание и его элементы. Ознакомительное чтение: Типы зданий.

Грамматика: предлоги места и времени.

### ТЕМА 2.6. Моя будущая специальность:

Изучающее чтение: Моя будущая специальность.

Ознакомительное чтение: Из истории строительства. Строительные профессии.

Грамматика: типы вопросов.

## 2.1. УЧЕБНО-МЕТОДИЧЕСКАЯ КАРТА УЧЕБНОЙ ДИСЦИПЛИНЫ для дневной формы получения высшего образования для специальности: 7-07-0731-01 АРХИТЕКТУРА

(ела,		Кол	ичесть	во ауд		рных	Количес тво	Форма контроля знаний
Номер раздела, темы	Название раздела, темы	Лекции	Лабораторны <del>с</del> занятия	Практические	занятия	Семинарские занятия	часов самост. Работы	
1	2	3	4		5	6	7	8
	2-й семестр							
1	Модуль социально-бытового и социокультурного общения.							
1.1	Учеба в вузе – новый этап в моей жизни:  Изучающее чтение: Новый этап в моей жизни.  Грамматический материал: местоимения: личные, притяжательные, возвратные, указательные.  Ознакомительное чтение: 1) Мой рабочий день.  2) Мой выходной день.  Беседа по УТ «Новый этап в моей жизни».				8		6	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги).
1.2	БрГТУ в системе высшего инженерного образования Республики Беларусь:  Изучающее чтение: Брестский государственный технический университет.  Грамматический материал: глагол, спряжение глаголов to be, to have в Present, Past, Future Indefinite. Оборот there + to be.			1	10		6	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги).

цела,		Кол	ичество ча	аудит	орных	Количес тво	<i>d</i>
Номер раздела, темы	Название раздела, темы	Лекции	Лаоораторные занятия	Практические занятия	Семинарские занятия	часов самост. Работы	Форма контроля знаний
1	2	3	4	5	6	7	8
	Ознакомительное чтение: 1) Английские университеты. 2) Оксфорд и Кембридж. 3) Высшее образование в Великобритании.  Беседа по УТ «БрГТУ в системе высшего образования Беларуси».						
1.3	Республика Беларусь в современном мире:  Изучающее чтение: Республика, в которой я живу.  Грамматический материал: глагол, времена группы Indefinite (Present, Past, Future) действительного залога.  Ознакомительное чтение: Мой родной город.  Беседа по УТ «Республика Беларусь в современном мире».			10		10	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы).
1.4	Социально-политический портрет Великобритании:  Изучающее чтение: Что я знаю о стране изучаемого языка.  Грамматический материал: глагол, времена группы Continuous (Present, Past, Future) действительного залога.  Ознакомительное чтение: 1) Соединённое Королевство. 2) Лондон. 3) Британский музей.  Беседа по УТ «Социально-политический портрет Великобритании».  Модуль профессионального общения.			10		10	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги).
2.1	Моя будущая профессия / специальность и ее значение в экономическом развитии Республики Беларусь:  Изучающее чтение: Инженерное искусство.  Грамматический материал: глагол: времена группы Perfect (Present, Past, Future) действительного залога.  Ознакомительное чтение: Будущее профессии инженера.  Беседа по УТ «Моя будущая профессия /			10		8	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги). Подготовка презентаций.

(ела,		Колі	иче		аудит	орных	Количес тво	
Номер раздела, темы	Название раздела, темы	Лекции	Лабораторные	занятия	Практические занятия	Семинарские занятия	часов самост. Работы	Форма контроля знаний
1	2	3		4	5	6	7	8
	специальность».							
2.2	Современное градостроительство:				10		8	Фронтальный/ индивидуальный
	Изучающее чтение: Строительные материалы.							опрос. Выполнение
	Грамматический материал: глагол: страдательный залог.							упражнений (перевод, ответы на вопросы).
	Ознакомительное чтение: 1) Архитектура и архитектор. 2) Архитектура 20 века.							
2.3	Современные города:				10		4	Фронтальный/
	Изучающее чтение: Энергосберегающая ландшафтная архитектура.							индивидуальный опрос. Выполнение упражнений
	Грамматический материал: глагол: согласование времен.							(перевод, ответы на вопросы).
	Ознакомительное чтение: Жилищная архитектура.							
	3-й семестр							
2.4	Основные архитектурные этапы:				16		22	Фронтальный/
	Изучающее чтение: 1) Египетская архитектура. 2) Греческая архитектура. 3) Римская архитектура. 4) Византийская архитектура. 5) Готический стиль.							индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы). Работа с
	Грамматический материал: глагол: модальные глаголы.							видеофильмами.
	Ознакомительное чтение: 1) Ренессанс. 2) Период Барокко. 3) Неоклассицизм.							
2.5	Здание и его элементы:				14		20	Фронтальный/
	Изучающее чтение: 1) Виды зданий. 2) Фундамент. 3) Виды строительных материалов.							индивидуальный опрос. Выполнение упражнений (перевод, ответы на
	Грамматический материал: имя прилагательное и наречие: степени сравнения.							вопросы).
	Ознакомительное чтение: 1) Качество строительных материалов. 2) Вентиляция. 3) Каркас здания.							

## 2.2. УЧЕБНО-МЕТОДИЧЕСКАЯ КАРТА УЧЕБНОЙ ДИСЦИПЛИНЫ для дневной формы получения высшего образования для специальности: 7-07-0731-02 АРХИТЕКТУРНЫЙ ДИЗАЙН

ела,		Коли	ичес		ауди	горных	Количес тво	
Номер раздела, темы	Название раздела, темы	Лекции	Лабораторные	занятия	Практические занятия	Семинарские занятия	часов самост. Работы	Форма контроля знаний
1	2	3	-	4	5	6	7	8
	1-й семестр							
1	Модуль социально-бытового и социокультурного общения.							
1.1	Учеба в вузе — новый этап в моей жизни:  Изучающее чтение: Новый этап в моей жизни.  Грамматический материал: местоимения: личные, притяжательные, возвратные, указательные.  Ознакомительное чтение: 1) Мой рабочий день.  2) Мой выходной день.  Беседа по УТ «Новый этап в моей жизни».				8		6	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги).
1.2	БрГТУ в системе высшего инженерного образования Республики Беларусь:  Изучающее чтение: Брестский государственный технический университет.  Грамматический материал: глагол, спряжение глаголов to be, to have в Present, Past, Future Indefinite. Оборот there + to be.  Ознакомительное чтение: 1) Английские университеты. 2) Оксфорд и Кембридж. 3) Высшее образование в Великобритании.  Беседа по УТ «БрГТУ в системе высшего образования Беларуси».				10		6	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги).
1.3	Республика Беларусь в современном мире:  Изучающее чтение: Республика, в которой я живу.  Грамматический материал: глагол, времена группы Indefinite (Present, Past, Future) действительного залога.  Ознакомительное чтение: Мой родной город.  Беседа по УТ «Республика Беларусь в современном мире».				10		10	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы).

ела,		Колг	ичество ча	аудит псов	орных	Количес тво	
Номер раздела, темы	Название раздела, темы	Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия	часов самост. Работы	Форма контроля знаний
1	2	3	4	5	6	7	8
1.4	Социально-политический портрет Великобритании:  Изучающее чтение: Что я знаю о стране изучаемого языка.  Грамматический материал: глагол, времена группы Continuous (Present, Past, Future) действительного залога.  Ознакомительное чтение: 1) Соединённое Королевство. 2) Лондон. 3) Британский музей.  Беседа по УТ «Социально-политический портрет Великобритании».			10		10	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги).
2.1	Модуль профессионального общения.  Моя будущая профессия / специальность и ее значение в экономическом развитии Республики Беларусь:  Изучающее чтение: Инженерное искусство.  Грамматический материал: глагол: времена группы Perfect (Present, Past, Future) действительного залога.  Ознакомительное чтение: Будущее профессии инженера.  Беседа по УТ «Моя будущая профессия / специальность».			10		8	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги). Подготовка презентаций.
2.2	Современное градостроительство:  Изучающее чтение: Строительные материалы.  Грамматический материал: глагол: страдательный залог.  Ознакомительное чтение: 1) Архитектура и архитектор. 2) Архитектура 20 века.			10		8	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы).
2.3	Современные города:  Изучающее чтение: Энергосберегающая ландшафтная архитектура.  Грамматический материал: глагол: согласование времен.  Ознакомительное чтение: Жилищная			10		4	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы).

ела,		Кол	іиче		аудито	орных	Количес тво	
Номер раздела, темы	Название раздела, темы	Лекции	Лабораторные	занятия	Практические занятия	Семинарские занятия	часов самост. Работы	Форма контроля знаний
1	2	3		4	5	6	7	8
	архитектура.							
	2-й семестр							
2.4	Основные архитектурные этапы:  Изучающее чтение: 1) Египетская архитектура. 2) Греческая архитектура. 3) Римская архитектура. 4) Византийская архитектура. 5) Готический стиль.  Грамматический материал: глагол: модальные глаголы.  Ознакомительное чтение: 1) Ренессанс. 2) Период Барокко. 3) Неоклассицизм.				18		20	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы). Работа с видеофильмами.
2.5	Здание и его элементы:  Изучающее чтение: 1) Виды зданий. 2) Фундамент. 3) Виды строительных материалов.  Грамматический материал: имя прилагательное и наречие: степени сравнения.  Ознакомительное чтение: 1) Качество строительных материалов. 2) Вентиляция. 3) Каркас здания.				16		18	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы).

## 2.3. УЧЕБНО-МЕТОДИЧЕСКАЯ КАРТА УЧЕБНОЙ ДИСЦИПЛИНЫ для дневной формы получения высшего образования для специальности: 6-05-0732-02 ЭКСПЕРТИЗА И УПРАВЛЕНИЕ НЕДВИЖИМОСТЬЮ

		Кол	ичество	аудито	рных		
la,			ча	сов		Количес	
Номер раздела,	Название раздела, темы Б	Лекции	Лаоораторные занятия	Практические занятия	Семинарские занятия	тво часов самост. Работы	Форма контроля знаний
1	2	3	4	5	6	7	8
	1-й семестр						
1	Модуль социально-бытового и социоку общения.	льтурного					
1.	.1 Новый этап в моей жизни:			8		12	Фронтальный/ индивидуальный

ела,		Колг		о аудито асов	орных	Количес тво	_
Номер раздела, темы	Название раздела, темы	Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия	часов самост. Работы	Форма контроля знаний
1	2	3	4	5	6	7	8
	Изучающее чтение: Студенческая жизнь – новый этап в моей жизни. Ознакомительное чтение: Рабочий день студента. Грамматика: имя существительное, множественное число имён существительных, притяжательный падеж; артикль; артикль с именами собственными.						опрос. Выполнение упражнений (лексико-грамматические, перевод, ответы на вопросы, пересказ, диалоги). Беседа по теме.
1.2	БрГТУ в системе высшего образования Республики Беларусь:  Изучающее чтение: БрГТУ в системе высшего образования Республики Беларусь.  Ознакомительное чтение: 1) Высшее образование в Великобритании. 2) Британские университеты.  Грамматика: местоимения, притяжательные местоимения, much/many, (a) little/(a) few, some/any/no; имя числительное.			10		14	Фронтальный/ индивидуальный опрос. Выполнение упражнений (лексико- грамматические, перевод, ответы на вопросы, пересказ, диалоги). Беседа по теме.
1.3	Республика Беларусь в современном мире:  Изучающее чтение: Республика, в которой я живу.  Ознакомительное чтение: 1) Мой родной город.  2) Праздники Беларуси.  Грамматика: имя прилагательное, наречие, образование и употребление, степени сравнения, сравнительные конструкции.			10		12	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы). Беседа по теме. Работа с видеофильмом.
1.4	Социально-политический портрет Великобритании:  Изучающее чтение: Что я знаю о стране изучаемого языка.  Ознакомительное чтение: 1) Соединенное Королевство. 2) Соединенные Штаты Америки.  Грамматика: видо-временные формы глагола, спряжение глаголов to be, to have в Present, Past, Future Indefinite; оборот there + to be; порядок слов в предложении.			12		10	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги). Работа с видеофильмом.
2	Модуль профессионального общения.						

цела,		Кол	ичес		ауд	итој	рных	Количес тво	Форма контроля знаний
Номер раздела, темы	Название раздела, темы	Лекции	Лабораторные	занятия	Практические	занятия	Семинарские занятия	часов самост. Работы	
1	2	3		4	5	i	6	7	8
2.1	Моя специальность и ее значение для экономического развития Республики Беларусь:  Изучающее чтение: 1) Профессия инженера. 2) Занятость в строительной отрасли.  Ознакомительное чтение: 1) Будущее инженерной профессии. 2) Инженерное проектирование зданий.  Грамматика: видо-временные формы глагола, времена группы Indefinite, Continuous, Perfect и Perfect Continuous действительного залога; типы вопросов.				100	0		12	Фронтальный/ индивидуальный опрос. Выполнение упражнений (лексико- грамматические, перевод, ответы на вопросы, пересказ, диалоги). Беседа по теме.
	2-й семестр								
2.2	Строительные материалы:  Изучающее чтение: 1) Материалы, используемые в строительстве. 2) Инженерные материалы. 3) Бетон. 4) Современные металлы. 5) Пластик.  Ознакомительное чтение: 1) Эпоха пластика. 2) Цветные металлы. 3) Кирпич.  Грамматика: видо-временные формы глагола, времена группы Indefinite, Continuous и Perfect страдательного залога; особенности перевода пассивных конструкций на русский язык.				16	6		14	Фронтальный/ индивидуальный опрос. Выполнение упражнений (лексико- грамматические, перевод, ответы на вопросы, пересказ, диалоги). Беседа по теме.
2.3	Строительство:  Изучающее чтение: 1) Стили строительства. 2) Конструктивные системы. 3) Проектирование зданий. 4) Фундамент.  Ознакомительное чтение: 1) Здания и жилые дома. 2) Нанотехнологии и строительство. 3) Каркасное строительство. 4) Фундамент жилых и промышленных зданий.  Грамматика: условные предложения I, II, III, смешанного типов.				16	6		16	Фронтальный/ индивидуальный опрос. Выполнение упражнений (лексико- грамматические, перевод, ответы на вопросы, пересказ, диалоги). Беседа по теме.
2.4	Архитектура:  Изучающее чтение: 1) Из истории строительства. 2) Архитектура: формы и функции.  Ознакомительное чтение: 1) Что подразумевается под биоклиматической архитектурой. 2) Дом. 3) Из истории человеческого жилища.				12	2		14	Фронтальный/ индивидуальный опрос. Выполнение упражнений (лексико- грамматические, перевод, ответы на

Номер раздела, темы	Название раздела, темы	Лекции	ча	адитические озанятия занятия	жеминарские аанятия к занятия	Количес тво часов самост. Работы	Форма контроля знаний
1	2	3	4	5	6	7	8
	4) Представления о современной архитектуре. Грамматика: модальные глаголы.						вопросы, пересказ, диалоги). Беседа по теме.
2.5	Обследование:  Изучающее чтение: 1) Геодезические методы.  Ознакомительное чтение: 1) Геодезическая съёмка. 2) Геодезическое оборудование.  Грамматика: неличные формы глагола: инфинитив, герундий, причастие, особенности перевода на русский язык.			6		16	Фронтальный/ индивидуальный опрос. Выполнение упражнений (лексико- грамматические, перевод, ответы на вопросы, пересказ, диалоги). Беседа по теме.

# 2.4. УЧЕБНО-МЕТОДИЧЕСКАЯ КАРТА УЧЕБНОЙ ДИСЦИПЛИНЫ для дневной формы получения высшего образования для специальности: 7-07-0732-01 СТРОИТЕЛЬСТВО ЗДАНИЙ И СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ – АВТОМОБИЛЬНЫЕ ДОРОГИ)

		Коли	ичество	аудито	рных		
Та,			ча	сов		Количес	
Номер раздела, темы	Название раздела, темы	Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия	тво часов самост. Работы	Форма контроля знаний
1	2	3	4	5	6	7	8
	1-й семестр						
1	Модуль социально-бытового и социокультурного общения.						
1.1	Новый этап в моей жизни:  Изучающее чтение: Студенческая жизнь – новый этап в моей жизни.  Ознакомительное чтение: Рабочий день студента.  Грамматика: имя существительное, артикли, имя прилагательное, числительные, глагол (действительный залог во всех временных формах).			12		14	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги).
1.2	Республика Беларусь в современном мире:  Изучающее чтение: Республика, в которой я			12		12	Фронтальный/ индивидуальный

ела,		Коли		аудито	орных	Количес тво	
Номер раздела, темы	Название раздела, темы	Лекции	<u>Лаоораторные</u> занятия	Практические занятия	Семинарские занятия	часов самост. Работы	Форма контроля знаний
1	2	3	4	5	6	7	8
	живу. Ознакомительное чтение: Праздники в Беларуси. Грамматика: наречия, страдательный залог во всех временных формах.						опрос. Выполнение упражнений (перевод, ответы на вопросы). Беседа по теме.
1.3	Социально-политический портрет Великобритании:  Изучающее чтение: Географическое положение, климат, политическая система и государственное устройство, население, экономика, обычаи и традиции, культура Великобритании.  Ознакомительное чтение: Система образования в Великобритании.  Грамматика: неличные формы глагола.			12		12	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги). Монологическое высказывание.
1.4	БрГТУ в системе высшего образования Республики Беларусь:  Изучающее чтение: БрГТУ: история, структура, специальности. Моя будущая специальность.  Ознакомительное чтение: Система высшего образования в РБ.  Грамматика: модальные глаголы, согласование времен.			14		12	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги). Монологическое высказывание.
	2-й семестр						
2	Модуль профессионального общения.						
2.1	Строительные материалы для строительства дорог:  Изучающее чтение: 1) Типы и виды строительных материалов. 2) Асфальт. Качество асфальта. 3) Дорожное покрытие.  Ознакомительное чтение: 1) Бетон совершенствует строительство дорог.  2) Качество тротуарных дорог.  Грамматика: сослагательное наклонение.			10		12	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы).
2.2	Из истории дорожного строительства:  Изучающее чтение: 1) Дороги Древнего Рима и			8		10	Фронтальный/ индивидуальный

ела,		Кол	ичество	о аудит асов	орных	Количес тво	
Номер раздела, темы	Название раздела, темы	Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия	часов самост. Работы	Форма контроля знаний
1	2	3	4	5	6	7	8
	их виды. 2) Римские дороги в Британии.  Ознакомительное чтение: 1) Система дорог инков. 2) Древний транспорт.  Грамматика: союзы, предлоги места и времени, прямая и косвенная речь.						опрос. Выполнение упражнений (перевод, ответы на вопросы).
2.3	Виды дорог:  Изучающее чтение: 1) Типы дорог. Шоссе. Автострада. 2) Автомагистраль. Дамба. 3) Пересечение дорог и перекрёстки.  Ознакомительное чтение: 1) Скоростная автострада. 2) Городской транспорт.  Грамматика: причастные и деепричастные конструкции.			12		10	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы).
2.4	Современное дорожное строительство:  Изучающее чтение: 1) Технология дорожного строительства. 2) Техническое обслуживание дорог. Тестирование дорожного покрытия.  Ознакомительное чтение: 1) Контроль дорожного движения.  Грамматика: инфинитивные конструкции.			10		10	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы).
2.5	Моя будущая специальность:  Изучающее чтение: 1) Моя будущая специальность. 2) Строительные профессии.  Ознакомительное чтение: 1) Великие инженерыстроители прошлого.  Грамматика: Условные предложения.  Повторение и обобщение.			10		8	Фронтальный/индиви дуальный опрос. Выполнение упражнений. Составление диалогов. Беседа по теме.

### 2.5. УЧЕБНО-МЕТОДИЧЕСКАЯ КАРТА УЧЕБНОЙ ДИСЦИПЛИНЫ

# для дневной формы получения высшего образования для специальностей: 7-07-0732-01 СТРОИТЕЛЬСТВО ЗДАНИЙ И СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ – ПРОИЗВОДСТВО СТРОИТЕЛЬНЫХ ИЗДЕЛИЙ И КОНСТРУКЦИЙ)

### 7-07-0732-01 СТРОИТЕЛЬСТВО ЗДАНИЙ И СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ – ПРОМЫШЛЕННОЕ И ГРАЖДАНСКОЕ СТРОИТЕЛЬСТВО)

ела,		Кол	ичество ча	аудит	орных	Количес тво	
Номер раздела, темы	Название раздела, темы	Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия	часов самост. Работы	Форма контроля знаний
1	2	3	4	5	6	7	8
	1-й семестр						
1	Модуль социально-бытового и социокультурного общения.						
1.1	Новый этап в моей жизни:  Изучающее чтение: Студенческая жизнь – новый этап в моей жизни.  Ознакомительное чтение: Рабочий день студента.  Грамматика: имя существительное, артикли, имя			8		8	Устный опрос, выполнение упражнений, перевод с иностранного языка на русский язык.
	прилагательное, числительные, глагол (действительный залог).						
1.2	БрГТУ в системе высшего образования Республики Беларусь:  Изучающее чтение: БрГТУ: история, структура, специальности.  Грамматика: наречия, глагол (страдательный			10		10	Устный опрос, выполнение упражнений, упражнения на аудирование.
	залог).						
1.3	Республика Беларусь в современном мире:  Изучающее чтение: Республика, в которой я живу.  Ознакомительное чтение: Праздники в Беларуси.  Грамматика: неличные формы глагола.			10		10	Устный опрос, выполнение упражнений, упражнения на аудирование.
1.4				10		10	<b>4</b>
1.4	Социально-политический портрет Великобритании:  Изучающее чтение: Географическое положение, климат, политическая система и государственное устройство, население, культура.  Ознакомительное чтение: Обычаи и традиции			10		10	Фронтальный/ индивидуальный опрос, выполнение упражнений (перевод, ответы на вопросы).

эла,		Колі		аудит	орных	Количес тво	
Номер раздела, темы	Название раздела, темы	Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия	часов самост. Работы	Форма контроля знаний
1	2	3	4	5	6	7	8
	Великобритании.						
	Грамматика: модальные глаголы, согласование времен.						
2	Модуль профессионального общения.						
2.1	Строительные материалы: общая характеристика:  Изучающее чтение: 1) Типы и виды строительных материалов. 2) Асбест. 3) Производство силиката. 4) Железобетон.			12		12	Фронтальный/ индивидуальный опрос, выполнение упражнений (перевод, ответы на вопросы).
	Ознакомительное чтение: Механические свойства строительных материалов.						
	Грамматика: сослагательное наклонение.						
	2-й семестр						
2.2	Цемент:  Изучающее чтение: 1) Производство цемента. 2) Виды цемента.  Ознакомительное чтение: Основания, фундаменты.			8		6	Устный опрос, выполнение упражнений, перевод с иностранного языка на русский язык.
	Грамматика: союзы, предлоги места и времени.						
2.3	Бетон:  Изучающее чтение: 1) Виды бетона. 2) Требования к бетону. 3) Железобетон и железобетонные конструкции.  Ознакомительное чтение: Транспортные механизмы.  Грамматика: прямая и косвенная речь.			12		12	Фронтальный/ индивидуальный опрос, выполнение упражнений (перевод, ответы на вопросы).
2.4	Методы строительства:			10		12	Устный опрос,
	Изучающее чтение: 1) Крупноблочное строительство. 2) Крупнопанельное строительство. 3) Каркасное строительство.  Ознакомительное чтение: Современные методы строительства.  Грамматика: причастные и деепричастные конструкции.						выполнение упражнений, перевод с иностранного языка на русский язык.

Номер раздела, темы	Название раздела, темы		ча	Практические ванятия	Семинарские занятия	Количес тво часов самост. Работы	Форма контроля знаний
1	2	3	4	5	6	7	8
2.5	Здание и его элементы:  Изучающее чтение: 1) Здание и его элементы. 2) Требования к зданиям. 3) Типы зданий. 4) Жилые и промышленные здания.  Ознакомительное чтение: Строительные коды. Грамматика: инфинитивные конструкции.			10		10	Фронтальный/ индивидуальный опрос, выполнение упражнений (перевод, ответы на вопросы).
2.6	Моя будущая специальность:  Изучающее чтение: 1) Моя будущая специальность. 2) Из истории строительства.  Ознакомительное чтение: Строительные профессии.  Грамматика: типы вопросов (повторение).			10		10	Устный опрос, выполнение упражнений, контрольный перевод

### 2.6. УЧЕБНО-МЕТОДИЧЕСКАЯ КАРТА УЧЕБНОЙ ДИСЦИПЛИНЫ

для заочной формы получения высшего образования и для заочной формы получения высшего образования, интегрированного со средним специальным образованием, для специальности: 7-07-0732-01 СТРОИТЕЛЬСТВО ЗДАНИЙ И СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ – ПРОМЫШЛЕННОЕ И ГРАЖДАНСКОЕ СТРОИТЕЛЬСТВО)

эла,		Коли		аудито	рных	Количес тво	
Номер раздела, темы	Название раздела, темы		<u>Лаоораторные</u> занятия	Практические занятия	Семинарские занятия	часов самост. Работы	Форма контроля знаний
1	2	3	4	5	6	7	8
	1-й семестр						
1	Модуль социально-бытового и социокультурного общения.						
1.1	БрГТУ в системе высшего образования Республики Беларусь:  Изучающее чтение: БрГТУ: история, структура, специальности.			2		16	Устный опрос, выполнение упражнений, перевод с русского на английский язык, беседа по теме

эла,		Кол	ичест	во час	-	торны	Количес тво		
Номер раздела, темы	Название раздела, темы	Лекции	Лабораторные	запатия	Практические занятия	Семинарские	часов	Форма контроля знаний	
1	2	3	4		5	6	7	8	
	Грамматика: глагол (действительный залог во всех временных формах).								
1.2	Республика Беларусь в современном мире:  Изучающее чтение: Республика, в которой я живу.  Ознакомительное чтение: Праздники в Беларуси.				2		16	Устный опрос, выполнение упражнений, ответы на вопросы.	
	Грамматика: страдательный залог во всех временных формах.								
1.3	Социально-политический портрет Великобритании:  Изучающее чтение: Географическое положение, климат, политическая система и государственное устройство, население, культура.  Ознакомительное чтение: Обычаи и традиции Великобритании.  Грамматика: неличные формы глагола.				2		18	Устный опрос, выполнение упражнений, ответы на вопросы.	
2	Модуль профессионального общения.								
2.1	Строительные материалы: общая характеристика:  Изучающее чтение: Типы и виды строительных материалов.  Ознакомительное чтение: Механические свойства строительных материалов.  Грамматика: сослагательное наклонение.				2		20	Устный опрос, выполнение упражнений, перевод, ответы на вопросы.	
2.2	Цемент:  Изучающее чтение: Производство цемента.  Ознакомительное чтение: Основания, фундаменты.  Грамматика: модальные глаголы.  2-й семестр				2		20	Устный опрос, выполнение упражнений, перевод.	
2.3	Бетон:				2		22	Устный опрос, выполнение упражнений, беседа по	

ела,		Коли		аудито	рных	Количес тво	
Номер раздела, темы	Название раздела, темы	Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия	часов самост. Работы	Форма контроля знаний
1	2	3	4	5	6	7	8
	Изучающее чтение: Виды бетона.						теме
	Ознакомительное чтение: Требования к бетону.						
	Грамматика: согласование времен.						
2.4	Методы строительства:			2		24	Устный опрос, выполнение
	Изучающее чтение: Современные методы строительства.						упражнений, перевод
	Ознакомительное чтение: Крупнопанельное строительство.						
	Грамматика: прямая и косвенная речь.						
2.5	Здание и его элементы:			2		24	Фронтальный/ индивидуальный опрос,
	Изучающее чтение: Здание и его элементы.						выполнение
	Ознакомительное чтение: Типы зданий.						упражнений (перевод, ответы на вопросы).
	Грамматика: предлоги места и времени.						
2.6	Моя будущая специальность:			4		20	Устный опрос,
	Изучающее чтение: Моя будущая специальность.						выполнение упражнений,
	Ознакомительное чтение: Из истории строительства. Строительные профессии.						контрольный перевод
	Грамматика: типы вопросов.						

### 3. ИНФОРМАЦИОННО-МЕТОДИЧЕСКАЯ ЧАСТЬ

3.1. Перечень литературы (учебной, учебно-методической, научной, нормативной, др.).

#### Основная:

- 1. Кабешева, Е. В. Английский язык = English / Е. В. Кабешева, Е. М. Гайкова, М. И. Чигринец. Минск : Вышэйшая школа, 2014. 175 с.
- 2. Латина С. В. Английский язык для строителей (B1–B2) : учебник и практикум для среднего профессионального образования / С. В. Латина. 2-е изд., испр. и доп. Москва : Издательство Юрайт, 2018. 135 с.
  - 3. Макаренко E. B. Road Building / E. B. Макаренко Брест : БрГТУ, 2021. 42 с.
- 4. Пинюта, И. В. Английский язык. Межкультурное общение : учеб. пособие / И. В. Пинюта ; Министерство образования Республики Беларусь, Барановичский государственный университет. Минск : РИВШ, 2017. 203 с.

- 5. Пузенко, И. Н. Английский язык. Профессиональное общение = Professional communication course : учеб. пособие / И. Н. Пузенко, И. М. Веренич, Н. В. Вербицкая. Минск : Изд-во Гревцова, 2014. 272 с.
- 6. Резько, П. Н. Modern Communication : учебно-методическое пособие по развитию коммуникативных навыков для студентов неязыковых вузов экономич. и технических специальностей / П. Н. Резько, Н. А. Боровикова Брест : БрГТУ, 2020. 105 с.
- 7. Хведченя, Л. В. Грамматика английского языка = Comprehensive English Grammar : учеб. пособие / Л. В. Хведченя. Минск : Изд-во Гревцова, 2011. 480 с.

### Дополнительная:

- 1. Агабекян, И. П. Английский для технических вузов / И. П. Агабекян, П. И. Коваленко. Ростов-на-Дону: Феникс, 2006. 352 с.
- 2. Безручко, Е. Н. Английский для архитекторов : пособие по английскому языку для студентов архитектурных и строительных специальностей ВУЗов / Е. Н. Безручко. Изд-е 2-е, перераб. и доп. Ростов-н/Д. : Издательский центр «МарТ», 2004. 192 с.
- 3. Бурлак, А. И. Учебник английского языка : Для студентов архитектурных и инженерно-строительных спецвузов : учебник / А. И. Бурлак. М. : Высш. Школа., 1982. 247 с.
- 4. Владимиров, В. А. Англо-русский словарь по гидротехнике / В. А. Владимиров, М. Ф. Губин, Б. Ф. Горюнов [и др.]. Москва: Русский язык, 1983. 148 с.
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- 7. Дубровская, С. Г. Английский для технических вузов : учебное пособие / С. Г. Дубровская, Д. Б. Дубина. М. : Издательство Ассоциации Строительных Вузов, 2007. 328 с.
- 8. Мусихина, О. Н. Английский язык для строителей : учебное пособие для студентов высших учебных заведений / О. Н. Мусихина, О. Г. Гисина, В. Л. Яськова. Ростов H/Д: Феникс, 2004. 352 с.
- 9. Новик, Д. В. Методические рекомендации по развитию навыков устной речи по английскому языку для студентов технических специальностей / Д. В. Новик, Т. М. Кучинская. Брест : БрГТУ, 2007. 33 с.
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  - 15. Хведченя, Л. В. Грамматика английского языка : учеб. пособие / Л. В. Хведченя.

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- ДЛЯ СПЕЦИАЛЬНОСТЕЙ «АРХИТЕКТУРА», «АРХИТЕКТУРНЫЙ ДИЗАЙН», «ЭКСПЕРТИЗА И УПРАВЛЕНИЕ НЕДВИЖИМОСТЬЮ», «СТРОИТЕЛЬСТВО ЗДАНИЙ И СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ АВТОМОБИЛЬНЫЕ ДОРОГИ)», «СТРОИТЕЛЬСТВО ЗДАНИЙ И СООРУЖЕНИЙ СТРОИТЕЛЬНЫХ (ПРОФИЛИЗАЦИЯ ПРОИЗВОДСТВО ИЗДЕЛИЙ КОНСТРУКЦИЙ)», «СТРОИТЕЛЬСТВО ЗДАНИЙ СООРУЖЕНИЙ И (ПРОФИЛИЗАЦИЯ – ПРОМЫШЛЕННОЕ И ГРАЖДАНСКОЕ СТРОИТЕЛЬСТВО)» (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 лексикограмматического 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.

ИТОГОВЫЙ КОНТРОЛЬ ДЛЯ СПЕЦИАЛЬНОСТИ «АРХИТЕКТУРА» представляет собой обобщение и систематизацию изученного учебного материала по всем аспектам иностранного языка и осуществляется в форме зачетов.

Зачет проводится в конце 2 и 3 семестров и выставляется по результатам выполнения программы текущего семестра: выполнение программы практических аудиторных занятий, сдача устных тем.

ИТОГОВЫЙ КОНТРОЛЬ ДЛЯ СПЕЦИАЛЬНОСТЕЙ «АРХИТЕКТУРНЫЙ ДИЗАЙН», «ЭКСПЕРТИЗА И УПРАВЛЕНИЕ НЕДВИЖИМОСТЬЮ», «СТРОИТЕЛЬСТВО ЗДАНИЙ И СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ –

АВТОМОБИЛЬНЫЕ ДОРОГИ)», «СТРОИТЕЛЬСТВО ЗДАНИЙ И СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ – ПРОИЗВОДСТВО СТРОИТЕЛЬНЫХ ИЗДЕЛИЙ И КОНСТРУКЦИЙ)», «СТРОИТЕЛЬСТВО ЗДАНИЙ И СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ – ПРОМЫШЛЕННОЕ И ГРАЖДАНСКОЕ СТРОИТЕЛЬСТВО)», представляет собой обобщение и систематизацию изученного учебного материала по всем аспектам иностранного языка и осуществляется в форме зачета и экзамена.

Зачет в 1 семестре выставляется по результатам выполнения программы текущего семестра: выполнение программы практических аудиторных занятий, сдача устных тем.

Экзамен проводится во 2 семестре. К экзамену допускаются студенты, выполнившие программу практических аудиторных занятий.

Структура экзамена:

- 1) чтение и письменный перевод оригинального профессиональноориентированного текста с иностранного языка на русский со словарём. Объём — 1300-1500 печатных знаков. Время выполнения — 45 минут.
- 2) реферирование аутентичного или частично адаптированного научнопопулярного 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) БрГТУ в системе высшего образования Республики Беларусь.
- 3) Республика Беларусь в современном мире.
- 4) Социально-политический портрет страны изучаемого языка.
- 5) Моя специальность и ее значение в экономическом развитии Республики Беларусь.
- 3.2.2. ДЛЯ СПЕЦИАЛЬНОСТИ «СТРОИТЕЛЬСТВО ЗДАНИЙ И СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ ПРОМЫШЛЕННОЕ И ГРАЖДАНСКОЕ СТРОИТЕЛЬСТВО)» (заочная форма получения высшего образования и заочная форма получения высшего образования, интегрированного со средним специальным образованием):

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 лексикограмматического 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.

ИТОГОВЫЙ КОНТРОЛЬ представляет собой обобщение и систематизацию

изученного учебного материала по всем аспектам иностранного языка и осуществляется в форме зачета и экзамена.

Зачет в 1 семестре выставляется по результатам выполнения программы текущего семестра: выполнение программы практических аудиторных занятий, сдача устных тем.

Экзамен проводится во 2 семестре. К экзамену допускаются студенты, выполнившие программу практических аудиторных занятий.

Структура экзамена:

- 1) чтение и письменный перевод оригинального профессиональноориентированного текста с иностранного языка на русский со словарём. Объём — 1300 печатных знаков. Время выполнения — 45 минут.
- 2) реферирование аутентичного или частично адаптированного научнопопулярного текста, беседа на иностранном языке по содержанию текста. Объём текста – 800 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) БрГТУ в системе высшего образования Республики Беларусь.
- 3) Республика Беларусь в современном мире.
- 4) Социально-политический портрет страны изучаемого языка.
- 5) Моя специальность и ее значение в экономическом развитии Республики Беларусь.

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 лексикограмматических 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.

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;
- 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.
- 3.3. Методические рекомендации по организации и выполнению самостоятельной работы обучающихся по учебной дисциплине.

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 СПЕЦИАЛЬНОСТИ «АРХИТЕКТУРА» (дневная форма получения высшего образования):

Самостоятельная работа студентов без контроля преподавателя осуществляется в объеме 94 часа, из них во 2 семестре – 52 часа, в 3 семестре – 42 часа.

Самостоятельная работа студентов включает самостоятельное изучение следующих тем по грамматике во 2 семестре:

- Существительное в функции определения и его перевод на русский язык.
- Местоимение one как заменитель существительного.
- Артикль: определенный и неопределенный. Основные случаи употребления артиклей. Отсутствие артикля.
- Числительные: простые, производные, сложные, количественные, порядковые и дробные.
- Предлоги места, времени, направления, инструментальности, причинности, совместности.

Самостоятельная работа студентов включает самостоятельное изучение следующих тем по грамматике в 3 семестре:

- Глагол: времена группы Perfect Continuous (Present, Past, Future) действительного залога
- Неличные формы глагола: Инфинитив. Простые и сложные формы инфинитива. Объектный и субъектный инфинитивный обороты.
- Неличные формы глагола: Герундий. Простые и сложные формы герундия. Синтаксические функции герундия в предложении. Герундиальные конструкции. Особенности перевода герундия на русский язык.
- Неличные формы глагола: Причастие I, II. Простые и сложные формы причастия. Независимый причастный оборот.

3.3.2. ДЛЯ СПЕЦИАЛЬНОСТИ «АРХИТЕКТУРНЫЙ ДИЗАЙН», (дневная форма получения высшего образования):

Самостоятельная работа студентов без контроля преподавателя осуществляется в объеме 90 часов, из них в 1 семестре – 52 часа, во 2 семестре – 38 часов.

Самостоятельная работа студентов включает самостоятельное изучение следующих тем по грамматике в 1 семестре:

- Существительное в функции определения и его перевод на русский язык.
- Местоимение one как заменитель существительного.
- Артикль: определенный и неопределенный. Основные случаи употребления артиклей. Отсутствие артикля.
- Числительные: простые, производные, сложные, количественные, порядковые и дробные.
- Предлоги места, времени, направления, инструментальности, причинности, совместности.

Самостоятельная работа студентов включает самостоятельное изучение следующих тем по грамматике во 2 семестре:

- Глагол: времена группы Perfect Continuous (Present, Past, Future) действительного залога
- Неличные формы глагола: Инфинитив. Простые и сложные формы инфинитива. Объектный и субъектный инфинитивный обороты.
- Неличные формы глагола: Герундий. Простые и сложные формы герундия. Синтаксические функции герундия в предложении. Герундиальные конструкции. Особенности перевода герундия на русский язык.
- Неличные формы глагола: Причастие I, II. Простые и сложные формы причастия. Независимый причастный оборот.

### 3.3.3. ДЛЯ СПЕЦИАЛЬНОСТИ «ЭКСПЕРТИЗА И УПРАВЛЕНИЕ НЕДВИЖИМОСТЬЮ» (дневная форма получения высшего образования):

Самостоятельная работа студентов без контроля преподавателя осуществляется в объеме 120 часов, из них в 1 семестре – 60 часов, во 2 семестре – 60 часов.

Самостоятельная работа студентов включает самостоятельное изучение следующих тем по грамматике в 1 семестре:

- Имя существительное: образование множественного числа и притяжательного падежа существительных. Существительное в функции определения и его перевод на русский язык.
- Местоимения: личные, притяжательные, возвратные, указательные, вопросительные, относительные и союзные, неопределенные, отрицательные, обобщающие. Местоимения it, one как заменители существительного.
- Артикль: определенный и неопределенный. Основные случаи употребления артиклей. Отсутствие артикля.
- Степени сравнения прилагательных и наречий. Сравнительные конструкции с прилагательными. Место прилагательных и наречий в предложении.
  - Числительные: количественные, порядковые, дробные.
  - Глагол: видовременные формы действительного и страдательного залогов.
  - Согласование времен.
  - Повелительное наклонение.

– Модальные глаголы и их эквиваленты.

Самостоятельная работа студентов включает самостоятельное изучение следующих тем по грамматике во 2 семестре:

- Синтаксис: Простое предложение. Порядок слов. Безличные предложения.
- Неличные формы глагола (инфинитив, герундий, причастие I, II): формы, конструкции, способы перевода на русский язык.
  - Отглагольное существительное.
  - Союз. Сочинительные и подчинительные союзы.
- Синтаксис: Сложное предложение. Типы придаточных предложений. Союзное и бессоюзное подчинение в придаточных предложениях.
  - Условные предложения I, II, III, смешанного типов. Сослагательное наклонение.
  - Прямой и обратный порядок слов в сложном предложении.
  - Прямая и косвенная речь.
- Предлоги места, времени, направления, инструментальности, причинности, совместности. Предлоги, совпадающие по форме с наречиями. Место предлога в предложении.
  - Основные словообразовательные модели.
  - Усилительные конструкции.
  - Слова-связки.
  - Вводные слова и предложения.
  - Интернациональные слова.
- ЗДАНИЙ 3.3.4. ДЛЯ СПЕЦИАЛЬНОСТЕЙ «СТРОИТЕЛЬСТВО И СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ АВТОМОБИЛЬНЫЕ ДОРОГИ)», ЗДАНИЙ СООРУЖЕНИЙ «СТРОИТЕЛЬСТВО И (ПРОФИЛИЗАЦИЯ СТРОИТЕЛЬНЫХ ИЗДЕЛИЙ И КОНСТРУКЦИЙ)», ПРОИЗВОДСТВО СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ «СТРОИТЕЛЬСТВО ЗДАНИЙ И И ГРАЖДАНСКОЕ СТРОИТЕЛЬСТВО)» ПРОМЫШЛЕННОЕ (дневная получения высшего образования):

Самостоятельная работа студентов без контроля преподавателя осуществляется в объеме 100 часов, из них в 1 семестре – 50 часов, во 2 семестре – 50 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.
- 3.3.5. ДЛЯ СПЕЦИАЛЬНОСТИ «СТРОИТЕЛЬСТВО ЗДАНИЙ И СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ ПРОМЫШЛЕННОЕ И ГРАЖДАНСКОЕ СТРОИТЕЛЬСТВО)» (заочная форма получения высшего образования и заочная форма получения высшего образования, интегрированного со средним специальным образованием):

Самостоятельная работа студентов без контроля преподавателя осуществляется в объеме 180 часов, из них в 1 семестре – 90 часов, во 2 семестре – 90 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.

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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)
Экономика строительства	Экономики и организации строительства		Рассмотрена и рекомендована к утверждению протокол № от
Металлические конструкции Железобетонные конструкции	Строительных конструкций		Рассмотрена и рекомендована к утверждению протокол № от
Технология строительного производства Технология возведения зданий	Технологии строительного производства		Рассмотрена и рекомендована к утверждению протокол № от

Содержание учебной программы согласовано с выпускающей кафедрой

Заведующий выпускающей кафедрой, кандидат технических наук, доцент

Заведующий выпускающей кафедрой, кандидат технических наук, доцент

Заведующий выпускающей кафедрой, кандидат технических наук, доцент

Ю.С.Дордюк

А.Б.Шурин

В.И.Юськович

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)
Экономика строительства	Экономики и организации строительства		Рассмотрена и рекомендована к утверждению протокол № от
Металлические конструкции  Железобетонные конструкции	Строительных конструкций		Рассмотрена и рекомендована к утверждению протокол № от
Технология строительного производства Технология возведения зданий	Технологии строительного производства		Рассмотрена и рекомендована к утверждению протокол № от

Содержание учебной программы согласовано с выпускающей кафедрой

Заведующий выпускающей кафедрой, кандидат технических наук, доцент

Ю.С.Дордюк

Заведующий выпускающей кафедрой, кандидат технических наук, доцент

А.Б.Шурин

Заведующий выпускающей кафедрой, кандидат технических наук, доцент

В.И.Юськович

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)
Типология зданий и сооружений Архитектурное материаловедение	Архитектуры		Рассмотрена и рекомендована к утверждению протокол № от

Содержание учебной программы согласовано с выпускающей кафедрой

Заведующий выпускающей кафедрой, кандидат технических наук, доцент

A.B.Typ

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)
Типология зданий и сооружений  Градостроительство и территориальная планировка	Архитектуры		Рассмотрена и рекомендована к утверждению протокол № от

Содержание учебной программы согласовано с выпускающей кафедрой

Заведующий выпускающей кафедрой, кандидат технических наук, доцент

A.B.Typ

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)
Организация и управление в строительстве Управление недвижимостью	Экономики и организации строительства		Рассмотрена и рекомендована к утверждению протокол № от

Содержание учебной программы согласовано с выпускающей кафедрой

Заведующий выпускающей кафедрой, кандидат технических наук, доцент

Ю.С.Дордюк

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)
Организация и управление в строительстве Управление недвижимостью	Экономики и организации строительства		Рассмотрена и рекомендована к утверждению протокол № от 

Содержание учебной программы согласовано с выпускающей кафедрой

Заведующий выпускающей кафедрой, кандидат технических наук, доцент

Ю.С.Дордюк

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)
Мосты и сооружения			
на дорогах			
	Геотехники и		Рассмотрена и рекомендована к
Строительные	транспортных		утверждению протокол № от
конструкции	коммуникаций		
транспортных			
сооружений			

Содержание учебной программы согласовано с выпускающей кафедрой

Заведующий выпускающей кафедрой кандидат технических наук, доцент

С.Н.Кандыбо

Название учебной дисциплины, с которой требуется согласование	Название кафедры	Предложения об изменениях в содержании учебной программы учреждения высшего образования по учебной дисцилине	Решение, принятое кафедрой, разработавшей учебную программу (с указанием даты и номера протокола)
Технология заводского производ-		The second secon	
ства бетонных, железобетонных изделий и конструкций	Технологии бетона и строительных материалов		Рассмотрена и рекомендована к утверждению протокол № от
Технология моно- литного бетони- рования			11 18 2 1 18 2 18 18 18 18 18 18 18 18 18 18 18 18 18

Содержание учебной программы согласовано с выпускающей кафедрой

Заведующий выпускающей кафедрой, кандидат технических наук, доцент

В.В.Тур

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)
Технология заводского производства бетонных, железобетонных изделий и конструкций Технология монолитного бетонирования	Технологии бетона и строительных материалов		Рассмотрена и рекомендована к утверждению протокол № от 

Содержание учебной программы согласовано с выпускающей кафедрой

Заведующий выпускающей кафедрой, доктор технических наук, доцент

B.B.Typ

### ДОПОЛНЕНИЯ И ИЗМЕНЕНИЯ К УЧЕБНОЙ ПРОГРАММЕ Регистрационный № УД-23-1-019/уч. от 23.06.2023 .

### Иностранный язык (английский)

### для специальностей:

7-07-0731-01 Архитектура

7-07-0731-02 Архитектурный дизайн

6-05-0732-02 Экспертиза и управление недвижимостью

7-07-0732-01 Строительство зданий и сооружений (профилизация Автомобильные дороги)

7-07-0732-01 Строительство зданий и сооружений (профилизация – Производство строительных изделий и конструкций)

7-07-0732-01 Строительство зданий и сооружений (профилизация - Промышленное и гражданское строительство)

(дневная форма получения высшего образования) (заочная форма получения высшего образования) (заочная форма получения высшего образования, интегрированного со средним специальным образованием)

### на 2023-2024 учебный год

№ п/п	Дополнения и изменения	Основание
1.	Для всех специальностей дневной формы получения высшего образования:  Внести в п. 3.2 раздела 3 «Информационно-методическая часть» сведения о текущей и промежуточной аттестации (информация прилагается).	Постановление Министерства образования Республики Беларусь от 13.10.2023 № 319 «Правила проведения аттестации студентов, курсантов, слушателей при освоении содержания образовательных программ высшего образования»
2.	Для специальности 7-07-0732-01 Строительство зданий и сооружений (профилизация — Промышленное и гражданское строительство) заочной формы получения выешего образования:  Внести в п. 3.2 раздела 3 «Информационно-методическая часть» сведения о текущей и промежуточной аттестации (информация прилагается).	Постановление Министерства образования Республики Беларусь от 13.10.2023 № 319 «Правила проведения аттестации студентов, курсантов, слушателей при освоении содержания образовательных программ высшего образования»
3.	Для специальности 7-07-0732-01 Строительство зданий и сооружений (профилизация — Промышленное и гражданское строительство) заочной формы получения высшего образования, интегрированного со средним специальным образованием:  Внести в п. 3.2 раздела 3 «Информационно-методическая часть» сведения о текущей и промежуточной аттестации (информация прилагается).	Постановление Министерства образования Республики Беларусь от 13.10.2023 № 319 «Правила проведения аттестации студентов, курсантов, слушателей при освоении содержания образовательных программ высшего образования»

Учебная программа пересмотрена и одобрена на заседании кафедры лингвистичес дисциплин и межкультурных коммуникаций (протокол №2 от 17 октября 2023 г.).

Заведующий кафедрой, кандидат филологических наук, доцент

В.И.Рахуба

УТВЕРЖДАЮ Декан строительного факультета кандидат технических наук, доцент

И.П.Павлова

### ДОПОЛНЕНИЯ И ИЗМЕНЕНИЯ К УЧЕБНОЙ ПРОГРАММЕ Регистрационный № УД-23-1-019/уч. от 23.06.2023

### Иностранный язык (английский)

### для специальностей:

7-07-0731-01 Архитектура

7-07-0731-02 Архитектурный дизайн

6-05-0732-02 Экспертиза и управление недвижимостью

7-07-0732-01 Строительство зданий и сооружений (профилизация – Автомобильные дороги)

7-07-0732-01 Строительство зданий и сооружений (профилизация – Производство строительных изделий и конструкций)

7-07-0732-01 Строительство зданий и сооружений (профилизация – Промышленное и гражданское строительство)

(дневная форма получения высшего образования)
(заочная форма получения высшего образования)
(заочная форма получения высшего образования, интегрированного со средним специальным образованием)

### на <u>2024-2025</u> учебный год

№ п/п	Дополнения и изменения	Основание
1.	Для всех специальностей дневной формы получения высшего образования:  Внести в пп. 3.2.1 пункта 3.2 раздела 3 «Информационнометодическая часть» сведения о текущей и промежуточной аттестации (информация прилагается).	Постановление Министерства образования Республики Беларусь от 13.10.2023 № 319 «Правила проведения аттестации студентов, курсантов, слушателей при освоении содержания образовательных программ высшего образования»
2.	Для специальности 7-07-0732-01 Строительство зданий и сооружений (профилизация — Промышленное и гражданское строительство) заочной формы получения высшего образования:  Внести в пп. 3.2.2 пункта 3.2 раздела 3 «Информационнометодическая часть»:  — текущая и промежуточная аттестации для данной специальности не предусмотрены.	Постановление Министерства образования Республики Беларусь от 13.10.2023 № 319 «Правила проведения аттестации студентов, курсантов, слушателей при освоении содержания образовательных программ высшего образования»
3.	Для специальности 7-07-0732-01 Строительство зданий и сооружений (профилизация – Промышленное и гражданское	Постановление Министерства образования

	строительство) заочной формы получения высшего образования, интегрированного со средним специальным образованием:  Внести в пп. 3.2.2 пункта 3.2 раздела 3 «Информационнометодическая часть»:  — текущая и промежуточная аттестации для данной специальности не предусмотрены.	Республики Беларусь от 13.10.2023 № 319 «Правила проведения аттестации студентов, курсантов, слушателей при освоении содержания образовательных программ высшего образования»
4.	Для дневной формы получения высшего образования: Добавить в учебную программу следующие специальности:  1) 7-07-0732-01 Строительство зданий и сооружений (профилизация — Автомобильные дороги и объекты транспортной инфраструктуры). Занятия вести согласно смежной специальности 7-07-0732-01 Строительство зданий и сооружений (профилизация — Автомобильные дороги);	Набор студентов на новые специальности в 2024 году.
	2) 7-07-0732-01 Строительство зданий и сооружений (профилизация — Эффективные строительные технологии). Занятия вести согласно смежной специальности 7-07-0732-01 Строительство зданий и сооружений (профилизация — Производство строительных изделий и конструкций);	
	3) 7-07-0732-01 Строительство зданий и сооружений (профилизация — Строительство и гражданская инженерия). Занятия вести согласно смежной специальности 7-07-0732-01 Строительство зданий и сооружений (профилизация — Промышленное и гражданское строительство);	
	4) 7-07-0732-01 Строительство зданий и сооружений (профилизация — Цифровое моделирование и проектирование в строительстве). Занятия вести согласно смежной специальности 7-07-0732-01 Строительство зданий и сооружений (профилизация — Промышленное и гражданское	
5.	строительство).  Для заочной формы получения высшего образования:	Набор студентов на новую
	Добавить в учебную программу следующую специальность: 1) 7-07-0732-01 Строительство зданий и сооружений	специальность в 2024 году.
	(профилизация — Строительство и гражданская инженерия). Занятия вести согласно смежной специальности 7-07-0732-01 Строительство зданий и сооружений (профилизация — Промышленное и гражданское строительство).	
6.	Для заочной формы получения высшего образования, интегрированного со средним специальным образованием:	Набор студентов на новые специальности в 2024 году.
	Добавить в учебную программу следующие специальности:  1) 7-07-0732-01 Строительство зданий и сооружений (профилизация — Строительство и гражданская инженерия).  Занятия вести согласно смежной специальности 7-07-0732-01	

	Промышленное и гражданское строительство);		
	2) 7-07-0732-01 Строительство зданий и сооружений		
	(профилизация – Автомобильные дороги и объекты		
	транспортной инфраструктуры). Занятия вести согласно		
	смежной специальности 7-07-0732-01 Строительство зданий и		
	сооружений (профилизация – Промышленное и гражданское		
	строительство).		
	оная программа пересмотрена и одобрена на заседанили и межкультурных коммуникаций (протокол №8 от	• •	X
Заве	дующий кафедрой,		
	идат филологических наук, доцент	В.И.Рахуба	
УТВ	ЕРЖДАЮ		
Дека	н архитектурно-строительного факультета		
канл	илат технических наук лопент	И П Павпова	

Строительство зданий и сооружений (профилизация –

- 3.2. Перечень средств диагностики результатов учебной деятельности.
- 3.2.1.1. ДЛЯ СПЕЦИАЛЬНОСТИ «АРХИТЕКТУРА» (дневная форма получения высшего образования):

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:

- во втором семестре: выполнение двух тестов по темам 1.1-1.4, 2.1-2.3 учебной программы (Тест № 1 темы 1.1-1.4; Тест № 2 темы 2.1-2.3);
- в третьем семестре: выполнение двух тестов по темам 2.4-2.5 учебной программы (Тест № 3 тема 2.4; Тест № 4 тема 2.5).

### ПРОМЕЖУТОЧНАЯ АТТЕСТАЦИЯ:

Обучающиеся допускаются к промежуточной аттестации по учебной дисциплине при условии успешного прохождения текущей аттестации, предусмотренной в текущем семестре.

Допуском к сдаче зачета во втором семестре является успешное выполнение 2/3 тестовых заданий (Тест № 1 и Тест № 2).

Допуском к сдаче зачета в третьем семестре является успешное выполнение 2/3 тестовых заданий (Тест № 3 и Тест № 4).

3.2.1.2. ДЛЯ СПЕЦИАЛЬНОСТИ «АРХИТЕКТУРНЫЙ ДИЗАЙН» (дневная форма получения высшего образования):

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 1.1-1.4, 2.1-2.3 учебной программы (Тест № 1 темы 1.1-1.4; Тест № 2 темы 2.1-2.3);
- во втором семестре: выполнение двух тестов по темам 2.4-2.5 учебной программы (Тест № 3 тема 2.4; Тест № 4 тема 2.5).

### 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).

3.2.1.3. ДЛЯ СПЕЦИАЛЬНОСТИ «ЭКСПЕРТИЗА И УПРАВЛЕНИЕ НЕДВИЖИМОСТЬЮ» (дневная форма получения высшего образования):

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 1.1-1.4, 2.1 учебной программы (Тест № 1 темы 1.1-1.3; Тест № 2 темы 1.4, 2.1);
- во втором семестре: выполнение двух тестов по темам 2.2-2.5 учебной программы (Тест № 3 темы 2.2-2.3; Тест № 4 темы 2.4-2.5).

### 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).

3.2.1.4. ДЛЯ СПЕЦИАЛЬНОСТИ «СТРОИТЕЛЬСТВО ЗДАНИЙ И СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ — АВТОМОБИЛЬНЫЕ ДОРОГИ)» (дневная форма получения высшего образования):

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 1.1-1.4 учебной программы (Тест № 1 темы 1.1-1.2; Тест № 2 темы 1.3-1.4);
- во втором семестре: выполнение двух тестов по темам 2.1-2.5 учебной программы (Тест № 3 темы 2.1-2.3; Тест № 4 темы 2.4-2.5).

### 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).

3.2.1.5. ДЛЯ СПЕЦИАЛЬНОСТЕЙ «СТРОИТЕЛЬСТВО ЗДАНИЙ И СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ – ПРОИЗВОДСТВО СТРОИТЕЛЬНЫХ ИЗДЕЛИЙ И КОНСТРУКЦИЙ)», «СТРОИТЕЛЬСТВО ЗДАНИЙ И СООРУЖЕНИЙ (ПРОФИЛИЗАЦИЯ – ПРОМЫШЛЕННОЕ И ГРАЖДАНСКОЕ СТРОИТЕЛЬСТВО)» (дневная форма получения высшего образования):

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 1.1-1.4, 2.1 учебной программы (Тест № 1 темы 1.1-1.3; Тест № 2 темы 1.4, 2.1);
- во втором семестре: выполнение двух тестов по темам 2.2-2.6 учебной программы (Тест № 3 темы 2.2-2.4; Тест № 4 темы 2.5-2.6).

### 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).

#### Репензия

на электронный учебно-методический комплекс по учебной дисциплине Иностранный язык (английский) для студентов специальностей 7-07-0732-01 Строительство зданий и сооружений (профилизация — Эффективные строительные технологии), 7-07-0732-01 Строительство зданий и сооружений (профилизация — Строительство и гражданская инженерия) Составитель: Боровикова Н.А., м.п.н., старший преподаватель

Рецензируемый электронный учебно-методический комплекс рассчитан на оказание методической и практической помощи по освоению дисциплины архитектурно-строительного (английский)» студентами «Иностранный язык факультета специальностей 7-07-0732-01 Строительство зданий и сооружений 7-07-0732-01 (профилизация Эффективные строительные технологии), Строительство зданий и сооружений (профилизация – Строительство и гражданская инженения) дневной формы обучения. Целью электронного учебно-методического комплекса является формирование у обучающихся иноязычной компетенции, позволяющей им решать социально-коммуникативные задачи в профессиональной иностранным языком владения повышение исходного уровня письма, совершенствование у обучающихся навыков говорения, чтения грамматических навыков.

Учебно-методический комплекс состоит из пояснительной записки, содержания, теоретического раздела, практического раздела, блока контроля знаний и вспомогательного раздела, содержащего учебную программу.

Структура теоретического раздела электронного учебно-методического комплекса унифицирована; практический раздел представлен набором текстов социально-бытовой направленности и профессиональной сферы, что соответствует модульному построению учебной программы. К каждому тексту прилагаются задания лексического и грамматического характера, направленные на проверку понимания прочитанного текста. Также предусмотрены творческие задания, направленные на применение приобретённых навыков в различных речевых ситуациях. Система упражнений способствует активному усвоению материала, систематизации знаний, полученных во время аудиторных занятий.

Структура электронного учебно-методического комплекса представляется логичной, он нацелен на освоение дисциплины, развитие умений и навыков управляемой самостоятельной работы студентов.

Рецензируемый электронный учебно-методический комплекс соответствует требованиям, предъявляемым к учебно-методическому обеспечению учебного процесса, а также современным тенденциям в обучении иностранному языку и может быть рекомендован к утверждению.

#### Рецензент:

Декан факультета иностранных языков УО «Брестский государственный университет им. А.С.Пушкина», кандидат педагогических наук, доцент

Е.Д.Осипов
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#### Рецензия

на электронный учебно-методический комплекс по учебной дисциплине Иностранный язык (английский) для студентов специальностей 7-07-0732-01 Строительство зданий и сооружений (профилизация — Эффективные строительные технологии), 7-07-0732-01 Строительство зданий и сооружений (профилизация — Строительство и гражданская инженерия) Составитель: Боровикова Н.А., м.п.н., старший преподаватель

Рецензируемый электронный учебно-методический комплекс по учебной дисциплине «Иностранный язык (английский)» предназначен для студентов архитектурно-строительного факультета специальностей 7-07-0732-01 Строительство зданий и сооружений (профилизация — Эффективные строительные технологии), 7-07-0732-01 Строительство зданий и сооружений (профилизация — Строительство и гражданская инженения) дневной формы обучения.

Структура и содержание ЭУМК соответствует требованиям Кодекса Республики Беларусь «Об образовании», Положению об учебно-методическом комплексе на уровне высшего образования и состоит из пояснительной записки, содержания, теоретического раздела, практического раздела, блока контроля знаний и вспомогательного раздела, содержащего учебную программу.

Цель электронного учебно-методического комплекса заключается в повышении исходного уровня владения иностранным языком и формировании у обучающихся иноязычных компетенций, позволяющих им решать коммуникативные задачи в профессиональной сфере, формировании навыков говорения, чтения и письма, развитии грамматических навыков.

В практической части электронного учебно-методического комплекса представлены материалы для проведения практических занятий и управляемой самостоятельной работы студентов. Размещённые в данном разделе тексты сопровождаются лексическими и грамматическими заданиями, направленными на использование знаний в реальных жизненных ситуациях и перенос формируемых навыков в будущую профессиональную деятельность с учётом её социально-культурного контекста. Предусмотрены творческие задания, направленные на применение приобретённых навыков в различных речевых ситуациях. Система упражнений способствует активному усвоению материала, систематизации знаний, полученных во время практических аудиторных занятий.

Электронный учебно-методический комплекс соответствует современным тенденциям в обучении иностранному языку, будет способствовать комплексному методическому обеспечению учебного процесса и может быть рекомендован к практическому использованию и утверждению.

Рецензент:

Заведующий кафедрой английской филологии УО «Брестский государственный университет им. А.С.Пушкина», кандидат филологических наук, доцент

Е.Г.Сальникова

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