

Учреждение образования

«Брестский государственный технический университет»

Экономический факультет

Кафедра лингвистических дисциплин и межкультурных коммуникаций

СОГЛАСОВАНО

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« 26 » 12 2024 г.

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« 26 » 12 2024 г.

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

для специальности

7-07-0732-01 Строительство зданий и сооружений  
(профилизация – Автомобильные дороги)

Составитель: преподаватель Куличик Н.С.

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*руч. в УМК 24/25-49*

**ПОЯСНИТЕЛЬНАЯ ЗАПИСКА**  
**к электронному учебно-методическому комплексу**  
**по учебной дисциплине «Иностранный язык»**  
**для специальности**  
**7-07-0732-01 Строительство зданий и сооружений**  
**(Профилизация — Автомобильные дороги)**

*Актуальность изучения дисциплины*

Иностранный язык в современном поликультурном и многоязычном мире является особенно значимым и востребованным в практической и интеллектуальной деятельности специалиста. Более того, иностранный язык рассматривается не только в качестве средства межкультурного и профессионального общения, но и средства формирования личности как субъекта национальной и мировой культуры. Следовательно, изучение иностранного языка является необходимой и неотъемлемой составной частью общеобразовательной профессиональной подготовки специалиста.

*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, учебно-познавательной 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 специальности 7-07-0732-01 Строительство зданий и сооружений (Профилизация — Автомобильные дороги).

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. Учебными программами 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 сфере логистики, формирование навыков говорения, чтения и письма, развитие грамматических навыков.

Содержание и объем ЭУМК полностью соответствуют образовательным стандартам высшего образования специальности 7-07-0732-01 Строительство зданий и сооружений (Профилизация — Автомобильные дороги), 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

	Автомобильные дороги	
	семестр	семестр
	1	2
Практические (семинарские) занятия (часов)	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
- 2.1.1. АНГЛИЙСКИЙ ЯЗЫК

## **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
  - 3.2.1. АНГЛИЙСКИЙ ЯЗЫК
- 3.3. Критерии оценивания работы студентов

## **4. ВСПОМОГАТЕЛЬНЫЙ РАЗДЕЛ**

- 4.1. Словари
  - 4.1.1. АНГЛИЙСКИЙ ЯЗЫК
- 4.2. Учебная программа дисциплины
  - 4.2.1. АНГЛИЙСКИЙ ЯЗЫК

# 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 машиностроения.

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 3 семестров на 1-2 курсах.

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

Данный курс предусматривает наличие навыков элементарного владения иностранным языком на Предпороговом уровне А2. 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, четко произнесенных и небольших по объему 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, учебе, 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, 2 курсах (1, 2, 3 семестры).

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	Аудирование	Понимание основных положений четко произнесенных 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.
Говорение	Диалог	Умение общаться в большинстве ситуаций, возникающих во время пребывания в стране изучаемого языка. Участие (без предварительной подготовки) в диалогах на базе изученных тем.
	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 выше приведенной 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 заголовки 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 лексико-грамматического 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 очередность 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, произнесенные в быстром темпе, и запишите их. Затем проверьте правильность своих записей при более медленном чтении предложений диктором.

Прослушайте предложения, произнесенные 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 произнесенных 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 учебного 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, решенные 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, самосовершенствованию и самореализации;

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, объема, конкретной тематики самостоятельной работы, уровня сложности, степени развития умений студентов.

Контроль результатов внеаудиторной самостоятельной работы студентов может осуществляться в пределах времени, отведенного 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, зачетам 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);
- 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 учетом следующих пунктов:

прежде чем приступить к работе, требуется четко 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 логикофактологическую 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, причем 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 идет речь.

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

При наличии сложносочиненного или сложноподчиненного 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 неопределенными 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 отведенное 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 А4 (шрифт: Times New Roman, 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 ее согласование с преподавателем. Объем сочинения должен составлять 240–280 слов. Сочинение сдается в указанный в графике срок.

### Требования к оформлению.

Сочинение сдается на листе бумаги или в специально заведенной 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 пойдет 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 свое 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 преподавателем, также допускается написание письма по теме, сформулированной самостоятельно, но в таком случае необходимо ее 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 приведенные 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-, видео- или 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 – «4П». 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 отчет 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, прохождении 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, участия 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 дополнительных курсов, оценки, сертификаты, комментарии, приобретенные 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 (актеры, ученые, писатели, спортсмены и т.п.), являющиеся для вас, в определенном 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 свое «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 дисциплинам.	2. Профессиональные конкурсы.
3. Средние оценки по специальным дисциплинам.	3. Научные публикации.
4. Курсовые работы.	4. Методические разработки и публикации (разработка учебного курса, деловой игры, тренинга, конференции, сайта по профессиональной теме).
5. Дипломная работа.	5. Участие в научной конференции.
6. Практики.	6. Участие в общественных проектах.
7. Иностранный язык.	7. Участие в профессиональных проектах.
8. Второй иностранный язык.	8. Участие в спортивных мероприятиях.
9. Третий иностранный язык.	9. Иные сертификаты, документы.
10. Любые сертификаты об обучении, связанные с профессией.	10. Отзывы, характеристики от руководителей предприятий, организаций.
11. Обучение за рубежом по направлению университета.	
12. Отзывы преподавателей, руководителей учебных практик.	

#### 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 ее.

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 «темный приз».

## 2. ПРАКТИЧЕСКИЙ РАЗДЕЛ

### 2.1. МАТЕРИАЛЫ ДЛЯ ПРАКТИЧЕСКИХ ЗАНЯТИЙ ПО ДИСЦИПЛИНЕ

#### 2.1.1. АНГЛИЙСКИЙ ЯЗЫК

##### **1.1. A NEW PERIOD IN MY LIFE. ABOUT MYSELF**

###### **I. 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 sec-ondary school and entered BrSTU. I worked hard to become a student of BrSTU that is why I passed entrance tests successfully.

Who can forget the first day at the university when one turns from an applicant who has passed entrance exams into a first-year student? I did it! I entered, I got in to the univer-sity! 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, sub-deans? Heads of departments and senior lecturers? Some of them must be professors, some – associate or assistant professors, but, of course, all of them have high academic degrees.

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

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

Certainly, a student has certain duties to perform. It goes without saying that the pri-mary 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 singing, music and choreography. And the annual contest "BrSTU Stars" helps to reveal the talents of first- year students. Our Student Club consists of 13 creative collectives, which take an active part in city, regional and national events. The Students' Club is the centre where the students can spend their time to the best advantage and make new acquaintances.

The Club offers various activities to the students who want to show their creativity. You can join university amateur societies and groups or try out themselves as script writers, producers and actors at University shows and festivals. This social life broadens the mind, develops your talents and communication skills.

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

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

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

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

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

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

**IV. Match the words with similar meanings.**

hostel	term
semester	to finish
to introduce	to like
to leave	to present

to prefer	dormitory
-----------	-----------

**V. Match the words with opposite meanings.**

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

**VI. 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

**VII. 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 sleepless nights over a load of books; you look up every word in your dictionary when reading an English book.

**VIII. 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 you feeling 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.

## **IX. 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 штате преподавателей у нас три профессора, четыре доцента, пять старших преподавателей и семь ассистентов.
7. В эту сессию будет пять зачётов и четыре экзамена.

**X. 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 and preparing 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 phrases.**

На это ушла пара недель, прийти в норму, засесть за что-либо, повседневная работа, наваливаться, маячить, слабые навыки, вызов, экспериментировать с чем-либо, 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.

**XI. 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.

**XII. 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.”

## **A NEW PERIOD IN MY LIFE**

**I. Pronounce the words correctly and learn their meaning.**

1. housing [haʊzɪŋ] – жильё
2. opportunity [ɒpə'tju:nɪtɪ] – возможность
3. dormitory, students hostel ['dɔ:mɪtrɪ] [hɔ:stl] – студенческое общежитие
4. to rent a flat (an apartment) [ə'reɪtmənt] – снимать квартиру
5. usually ['ju:ʒuəlɪ] – обычно
6. rather ['ra:ðə] – довольно
7. enough [ɪnf] – достаточно
8. completely [kəm'pli:tli] – полностью, совершенно
9. to serve [sə:v] – обслуживать

10. while [waɪl] – пока, в то время как
11. to prefer [prɪ'fɜː] – предпочитать
12. to miss [mɪs] – пропускать
13. successfully [sək'sesfʊlɪ] – успешно
14. canteen [kæ:n'ti:n] – столовая
15. back [bæk] – обратно
16. break [breɪk] – перерыв
17. report [rɪ'pɔːt] – доклад
18. tired [tʌɪəd] – усталый
19. admit [əd'mɪt] – соглашаться
20. disposal [dɪs'pəʊzl] – возможность распорядиться
21. recreation [rekrɪ'eɪʃn] – отдых
22. facilities [fə'sɪlɪtɪz] – возможности, условия
23. to keep fit [kɪ:p fɪt] – быть бодрым, здоровым
24. advantage [əd'vɑːntɪdʒ] – польза

## **II. 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, me-chanical engineering, economy and ecology. Now I am a first-year student of Civil Engi-neering Department I think Civil Engineering is a very important branch of national econ-omy. The purpose of Civil Engineering is to construct and reconstruct residential and indus-trial 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 dormitory or 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 li-brary. 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 show their 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 con-duct 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 grad-uates, 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 Carpathi-ans, 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.

### **III. Complete the sentences:**

1. On leaving school I entered...

-----

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

-----

3. I think Civil Engineering is...

-----  
4. The purpose of Civil Engineering is...

-----  
5. A compact university campus is set...

-----  
6. The campus offers...

-----  
7. The University Sports Club offers...  
-----

**IV. 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  
-----

**V. Find the suitable meaning to each word:**

1. Need – a) clean, polish, make tidy or smooth

2. Rent – b) go away from

3. Brush – c) want, require

4. Leave – d) interval (in space or time)

5. Miss – e) occupy or use (land, buildings, etc.) for rent

6. Success – f) fail to hit, hold, catch, reach, see

7. Break – g) person or thing that succeeds

**VI. Use sentences in the Past and Future Simple, Continuous or Perfect tense forms.**

Example: 1. Being happy is 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.

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

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.

-----  
3. That is the time to share the latest news.

-----  
4. We are watching TV now.

-----  
5. It has made people better.

-----  
6. I have managed to do everything very well.

-----  
**VII. Use sentences in the Past and Future Simple, Continuous or Perfect Passive tense forms.**

Example: 1. I am woken up by my roommate.

2. I was woken up by my roommate.

3. I shall be woken up by my roommate.

Example: 1. Breakfast is being served now.

2. Breakfast was being served at that time.

Example: 1. The Flat has been rented by him.

2. The flat had been rented by him by August.

3. The flat will have been rented by him before September.

1. The latest news is listened to on the radio.

-----  
2. The latest news is shared by us.

-----  
3. The lecture is being presented now.

-----  
4. The report is being written by him now.

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5. She has just left the house.

---

6. The classes have already begun.

---

7. They have had a lecture in physics.

---

**VIII. Answer the following questions:**

1. Where do 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?

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

Example: 1. Do his parents live in Minsk?

2. Where does he study?
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.

**X. 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 philosopher, 1561-1626).

**XI. Speak about your working day with your groupmate in the form of a dialogue.**

## **I. 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!

## **II. 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?

## **GRAMMAR EXERCISES**

*Noun (Number. Case. Article)*

**Ex. 1. Change the number form of the nouns in bold type for the plural.**



1. This place can well be called an oasis of culture. 2. The atomic nucleus must not be used as a medium of destruction, but rather as a medium of construction. 3. Every heavenly body revolves around its axis. 4. Through a microscope we can see such a tiny living thing as a bacillus, a bacterium, or a larva. 5. A more detailed analysis of this phenomenon can be found in a specialised encyclopedia. 6. A fungus is a kind of a poisonous mushroom. 7. There is a strict criterion, which makes it possible to support this hypothesis and to present it in the form of mathematical formula. 8. An abacus is a very simple instrument for doing arithmetic. 9. A nebula is a cloudlike group of stars, too far away to be seen singly. 10. An alumnus of a university is a person who has attended, or is a graduate, of this particular institution.

**Ex. 2. Replace the of-phrases by the possessive where possible.**

1. We walked a little along the bank of the river. 2. Let's climb onto the roof of the house and lie in the rays of the sun. 3. Would you like a cup of milk? 4. The school is at the distance of two miles from the Town Hall. 5. The taming of animals requires great patience and self-possession. 6. How great is the population of our country now? 7. What is the height of this old oak tree? 8. We were rather tired after a walk for an hour. 9. There was a heap of books under the table. 10. The tides of the ocean are caused by the movement of the Moon. 11. Corporal punishment of children has long been prohibited in schools. 12. We examined the places of interest of London, which are near Trafalgar Square. 13. Your treatment of my younger brother is something shameful. 14. What will mankind do when the resources of the world are all exhausted? 15. Who was the discoverer of the ancient Greek City of Troy in the 19-th century?

**Ex. 3. Use the right article to show whether the noun is used as countable or uncountable.**

1. ... ironmonger is ... person dealing in goods made of ... iron, such as pots and pans. 2. ... iron is an instrument for pressing and smoothing our clothing. 3. One of the greatest figures in ... Greek thought was Aristotle. 4. He hasn't ... thought in his head. 5. I need ... needle and ... thread to sew up button. 6. Your silly mistake makes all our plans hang by ... thread now. 7. In the darkness of the hall only ... thread of ... light came through the keyhole. 8. The Greek myth says Prometheus stole ... fire from Olympus to give it to men. 9. When ... night came, the scouts put up ... fire to frighten off the wolves. 10. There was ... fire in the coal-mine the other day. 11. When Western Allies waged ... war against Hitler, it was not ... war within Europe only. 12. I can do with ... hard-boiled egg for breakfast. 13. Wipe your chin: you've got ... egg there. 14. He began with ... red wine, bad olives and other obscure foods. 15. This was ... wine he had never tasted before. 16. He saw ... light in the distance and felt more assured. 17. Could you give me ... light? 18. What is the speed of ... light?

**Pronoun**

**Ex. 1. Insert the proper form of the personal pronoun in brackets.**

1. I had turned and faced (he). He was taller than (I) 2. I only mean I'm sorry the captain's (I). 3. He'll be between (you) and (I), anyway. 4. It was (he) before whom she felt defeat. 5. It was (she) who asked the next question. 6. It's (they) whom I pity desperately. 7. 'She's better at it than (we) are', said Nora. 8. It was (I), not Martin who had insisted on seeing (he) that night – because I wanted his support. 9. I recalled, too,

there had been some talk between Tom Wells and (she). 10. Now here you are, safe and sound. And you have your home and Eliza and (he). 11. This is (I) who can help you.

**Ex. 2. Choose the appropriate form of the possessive pronoun.**

1. I went (my, mine) way, and she went (her, hers). 2. He left (her, hers) with (their, theirs) child. 3. What was the experiment of (your, yours)? 4. He slipped (his) arm in (her, hers). 5. From this point onward (their, theirs) story comes in two versions, (my, mine) and (her, hers). 6. The Minister's room was only two doors from (my, mine). 7. 'That thought is not (my, mine),' he said to himself quickly. 6. Where's (your, yours) seat? I shall go to (my, mine). 9. Call me what you like. You have chosen (your, yours) part, we have chosen (our, ours). 10. His nature was harder than most of (their, theirs).

**Ex. 3. Choose 'this', 'that', 'these', 'those' or 'it'.**

1. Will ... pair suit you? Or maybe ... one, over there? 2. Thank you, ... will do, take your seat, please. 3. Look at ... flowers! Aren't they lovely? 4. Look at ... bright stars! How magnificent! 5. She knew Mother would least of all expect her to leave the farm on ... morning. 6. Martin had married Irene ... autumn, but I could not visit them for some time afterwards. 7. Well, yesterday he closed up his shop business altogether. Didn't somebody mention ... to you? 8. I'll tell you ... : there's no smoke without fire! 9. I can't be sure, ... is only what he himself said. 10. But she opposed her own strength, ... someone who had gone into the world and could imagine no other life. 11. The architectural monuments of Moscow have little resemblance to ... of Petersburg. 12. I request from all ... present a minute's silence, please. 13. Don't tell me, I know all ... . 14. Don't tell me, I know ... all. 15. When she's had five or six cocktails she always starts screaming like ... . 16. If I were to prepare one immaculately phrased generality, it would be ... : we are a new breed.

**Ex. 4. Fill in 'few', 'a few', 'little', 'a little'.**

1. I can't go yet, there are still ... things left undone. 2. The forces were obviously unequal: we were many, they were ... . 3. Many members of the audience were silent, and some ... had left at intervals throughout the speech. 4. Of course, there were ... wrong spellings, but not too many. 5. When women place their secret lives in the hairdresser's hands, he gains an authority ... other men ever attain. 6. I don't deny that perhaps Amy took her husband ... too much for granted. 7. ... did he know what was in store for him. 8. I must admit, this problem has given me not ... trouble, yet I have solved it. 9. Unfortunately, there were quite ... mistakes in your paper. 10. I'm a newcomer to the town, I know only ... here. 11. I must say I know only ... more than you. 12. He feels rather lonely, he has ... friends in his class. 13. I feel much better now that I already have ... friends. 14. Is there any time left still? – Just ... . 15. So ... people came that we had to cancel the meeting. 16. Everyone was there – Tom, Paul, Jenny, to name but ... . 17. Many shall be called, but ... chosen. 18. We need one more player, we are one too ... for this game.

**Ex. 5. Fill in appropriate articles where necessary.**

1. It was only ... fifth of July, and no meeting was fixed with Fleur until ... ninth. 2. June walked straight up to her former friend, kissed her cheek, and ... two settled down on a sofa never sat on since the hotel's foundation. 3. He'd catch ... two o'clock train back to New York. 4. She's quite aged for ... seventy, isn't she? What I would call ... old

seventy. 5. The letter bored him, and when it was followed next day by another, and the day after by ... third, he began to worry. 6. Philip looked at his uncle with disapproval when he took ... second piece of cake. 7. He walked along thoughtfully. He wasn't going to be one of ... lucky ten who were going to be taken back. 8. 'Miss Luce will be ... second mother to the children,' she said. 9. They talked of ... thousand things, and they all talked at once. 10. James looked at her sideways, and placed ... second piece of ham in his mouth. 11. The phone rang almost immediately ... third time. 12. The phone ringing for ... fourth time, interrupted his thoughts. 13. ... three times I have already done that. Everything! Then this time will make ... fourth. 14. That question, too, he had asked himself ... thousand times. 15. Once more he had used the service stairs from ... eighth floor ... ninth.

### *Numerals*

**Ex. 1. Write in words.**

**4, 14, 40; 5, 15; 50; 8, 8th, 18th, 80th; 9, 19, 90, 9th, 90th.**

## **1.2. THE REPUBLIC OF BELARUS IN THE MODERN WORLD**

**I. 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.

**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. BELARUS.**  
**WELCOME TO BELARUS**

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

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

**II. Read the following words and learn their meaning.**

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

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

<i>humid</i>	<i>flora and fauna</i>	<i>flat</i>	<i>to constitute</i>
--------------	------------------------	-------------	----------------------

<i>leading</i>	<i>a capital</i>	<i>to export</i>	<i>route</i>
<i>legislative</i>	<i>a supplier</i>	<i>network</i>	<i>a deposit</i>

- 1) a city which is the of a or other
- 2) to or make something
- 3) of in the
- 4) having little or no
- 5) and .
- 6) re to the making of
- 7) a that has under the , over a
- 8) a (a , a ) that particular goods
- 9) , most , or most
- 10) to to another for
- 11) a consisting of many that are together
- 12) a way or between

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

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

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

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

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

Natural resources are mainly represented by thirty types of minerals. Peat is in the first place among energy resources. Peat deposits are quite rich and can be found in every region. Potassium salts take the leading position among the minerals. The country is one of the five biggest suppliers of potassium in the world. There are also deposits of coal, oil, gravel, sands and clays in Belarus.

The Republic of Belarus has a significant economic potential which makes it possible to produce competitive industrial and agricultural products. The brand «Made in

Belarus» is known in many countries. Belarusians participate actively in leading international economic forums. The most developed branches of industry are machine building, radio-electronics, chemical and food industry. The most important manufactured products are tractors, transport vehicles, trucks, agricultural machinery, metal-cutting machines as well as consumer goods such as bicycles, clocks and watches, refrigerators, TV sets and others.

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

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

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

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

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

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

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

Court and the Constitutional Court. The latter is charged with protecting the constitution. It has the power to review the constitutionality of presidential edicts and the decisions of the other two high courts.

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

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

**V. Fill in the table below.**

Official name	<i>The Republic of Belarus</i>
Area	
Administrative centres	
Capital	
Official languages	
Population	
Ethnic groups	
Climate	
Natural resources	
International relationships	
System of government	

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

- 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

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

sovereign	system
urban	hills
official	symbol
continental	state

flat	resources
picturesque	airport
thick	centre
national	routes
shipping	language
natural	terrain
leading	climate
transportation	channel
navigation	forest
international	position

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

- a) The Republic of Belarus borders \_\_\_\_\_ Russia, Poland, Ukraine, Latvia 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.

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

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



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

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

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

The first written documents of the Belarusian statehood go as far back as 980 AD when Prince Rogvolod began his reign on Polotsk lands, which are the historic 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 Ukraine and Caucasus created the Union of Soviet Socialist Republics, which included the major part of the former Russian Empire. On August 1991 Belarus declared its independence.

## **THE REPUBLIC I LIVE IN**

**I. Pronounce the following words correctly and learn their meaning:**

1. divide [di'vaɪd] – делить
2. include [ɪn'klʊ:d] – включать
3. promote [prə'məʊt] – продвигать
4. humidity [hju'mɪdɪti] – влажность
5. coniferous [kəu'nɪfərəs] – хвойный
6. rare [rɛə] – редкий
7. peat [pi:t] – торф
8. gravel ['grævəl] – гравий

9. clay [klei] – глина
10. survey [sə:veɪ] – обследование
11. recent [ˈri:snt] – недавний
12. contribute [kənˈtribjut] – способствовать
13. output [ˈaʊtput] – продукция
14. account [əˈkaʊnt] – составлять
15. crop [krɒp] – с/х культура
16. barley [ˈba:lɪ] – ячмень
17. rye [raɪ] – рожь
18. flax [flæks] – лён
19. livestock [ˈlaɪvstɔk] – домашний скот
20. expenditure [ɪksˈpendɪtʃə] – расход
21. conduct [kənˈdʌkt] – вести
22. connect [kəˈnekt] – связывать
23. serve [sɜ:v] – служить
24. create [kriˈeɪt] – создавать
25. legislature [ˈledʒɪsleɪtʃə] – законодательная власть
26. judicial [dʒuˈdɪʃəl] – судебный
27. protect [prəˈtekt] – защищать
28. enormous [ɪˈnɔ:məs] – громадный
29. devastation [devəsˈteɪʃən] – опустошение
30. rapid [ˈræpɪd] – быстрый
31. ancient [ˈeɪnʃənt] – старинный, древний

## II. 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.

**III: 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

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5. Notably – nearly – remarkably – domestic

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**IV. Complete the following sentences.**

- Belarus is a country in \_\_\_\_\_
- The total area of Belarus is \_\_\_\_\_
- Belarus is divided administratively into \_\_\_\_\_
- Belarus has a \_\_\_\_\_
- 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.

**V. Insert the missed parts of the sentences**

- Belarus became \_\_\_\_\_ of the U.N.
- Under the constitution the president is \_\_\_\_\_ of the state.
- Belarus as \_\_\_\_\_ was established in 1919.

- Nazi Germany occupied Belarus \_\_\_\_\_ during World War II
  - By the summer of 1942 the republic became \_\_\_\_\_ of an extensive 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.

#### **VI. 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?

#### **VII. 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.

**VIII. 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).

**IX. Speak about Belarus with your groupmate in the form of a dialogue.**

**EDUCATION IN BELARUS**

**I. 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?

**II. Read the following words and learn their meaning.**

- |                    |                                |
|--------------------|--------------------------------|
| 1) trend           | тенденция, направление         |
| 2) unification     | объединение                    |
| 3) continuity      | непрерывность, преемственность |
| 4) to embrace      | включать                       |
| 5) vocational      | профессиональный               |
| 6) retraining      | переподготовка                 |
| 7) compulsory      | обязательный                   |
| 8) to reveal       | раскрывать, показывать         |
| 9) to acquaint     | знакомить                      |
| 10) elective       | факультатив                    |
| 11) simultaneously | одновременно                   |
| 12) post-graduate  | послевузовский                 |
| 13) entity         | организация, объект            |
| 14) grant          | грант                          |
| 15) scholarship    | стипендия                      |
| 16) defense        | защита                         |
| 17) thesis         | научная работа, диссертация    |

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

<i>simultaneously</i>	<i>compulsory</i>	<i>timetable</i>	<i>scholarship</i>
<i>to reveal</i>	<i>trend</i>	<i>continuity</i>	<i>elective</i>
<i>requirement</i>	<i>certificate</i>	<i>unification</i>	<i>establishment</i>

1) an official document that states that the information on it is true

2) an amount of money given by a college or other organization to pay for the studies of a person with great ability

3) something that must be done; necessary by law or a rule

- 4) happening or being done at exactly the same time
- 5) the place where an organization operates
- 6) a subject that someone can choose to study as part of a course
- 7) the general direction of changes or developments
- 8) the state of something without change or interruption
- 9) something needed or necessary
- 10) a detailed plan showing when events or activities will happen
- 11) to make known or show something that was previously secret
- 12) the forming of a single thing by bringing together separate parts

**IV. 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.

**V. 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) поспособностям/склонностям

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

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

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

<i>social skills</i>	<i>obligatory</i>	<i>a "red certificate"</i>	<i>basic mathematics</i>
<i>general</i>	<i>free of charge</i>	<i>pre-school</i>	<i>scholarships</i>
<i>stimulate</i>	<i>full-time</i>	<i>higher education</i>	<i>future profession</i>



- 1) The system of education in Belarus starts with the \_\_\_\_\_ education.
- 2) Children who attend kindergarten learn \_\_\_\_\_ when they play with other children.
- 3) Children are taught pre-reading and pre-writing as well as \_\_\_\_\_.
- 4) The public nurseries and kindergartens are \_\_\_\_\_.
- 5) \_\_\_\_\_ secondary education in Belarus starts at the age of 6.
- 6) Pupils study \_\_\_\_\_ subjects like maths, biology, physics.
- 7) Secondary basic school helps pupils define their \_\_\_\_\_.
- 8) \_\_\_\_\_ are awarded to very gifted students.
- 9) The system of \_\_\_\_\_ consists of universities, academies, and institutes.
- 10) Students who graduate with honors are awarded \_\_\_\_\_.
- 11) Two-thirds of all students choose \_\_\_\_\_ education.
- 12) All types of educational establishments \_\_\_\_\_ effectiveness of education.

### **VIII. Complete the sentences with correct prepositions.**

- 1) General secondary education in Belarus starts \_\_\_\_\_ the age of 6.
- 2) The system of education in Belarus starts \_\_\_\_\_ the preschool education.
- 3) Children are given knowledge \_\_\_\_\_ maths, nature studies and music.
- 4) Around 70% of children attend nursery or kindergarten \_\_\_\_\_ they go to school.
- 5) The Belarusian policy for higher education is mainly based \_\_\_\_\_ state laws.
- 6) The certificate of secondary education enables young people to continue their education \_\_\_\_\_ the university level.
- 7) Kindergartens are for children \_\_\_\_\_ six years.
- 8) The educational policy in the Republic of Belarus guarantees equal access \_\_\_\_\_ all educational stages.
- 9) On graduating \_\_\_\_\_ basic school, young people have the opportunity to continue their education.
- 10) Universities and academies are engaged \_\_\_\_\_ fundamental research.

### **IX. 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 requirements for getting a Diploma of Certified Specialist?

### **X. 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	

## GRAMMAR EXERCISES

### *Adjective. Adverb*

#### **Ex. 1. Use the adjectives in the comparative or superlative degree.**

1. I am sure he is the (true) friend I have. 2 It is (true) to say that British English is influenced by American, rather than the other way round. 3. Walking, for many, the (pleasant) kind of physical exercise. 4. It is much (pleasant) to walk in bright weather than in the rain. 5. I haven't seen a (stupid) person than he in my life. 6. He is surely (stupid) than he tries to seem. 7. You could not find an (unhappy) fate than hers. 8. He felt still (unhappy) after what he had heard. 9. There has never been a (cruel) regime than in that country. 10. A defeat in a war makes the dictator even (cruel) than does victory. 11. Today he has been (quiet) than ever before. 12. I wish to live in the (quiet) street of the (quiet) little town. 13. He seemed to be (glad) than I had expected. 14. Here was one of the (handsome) specimens of humanity he had ever seen.

#### **Ex. 2. Choose the right word.**

1. (cold/coldly) a) What a ... day it is! b) Why did you speak to me so ... ? 2. (sad/sadly) a) She was very ... when I saw her last. b) She looked ... about her before leaving the place. 3. (silent/silently) a) He was ... for a time. b) Then he turned round ... and left the room. 4. (good/well) a) Your English is very ... . b) You speak English very ... . 5. (simple/simply) a) How did you find my place? – Quite ... . b) This exercise is very ... . c) It was not so ... to understand you. 6. (terrible/terribly) a) There was a ... storm at night. The wind blew ... . b) I am ... sorry to hear it. 7. (quick/quickly) a) He can run very ... . b) What a ... runner he is! 8. (high/highly) a) The boy was ... praised for his singing. b) The plane flew very ... in the sky. 9. (close/closely) a) Let's look at the problem more ... . b) He lives quite ... to my place. c) These things are ... connected. 10. (deep/deeply) a) They buried the gold ... in the ground. b) Her feelings were ... hurt. 11. (right/rightly) a) Go on straight, then turn ... . b) The table stands ... in the middle of the room. c) I'm afraid you didn't get me ... . I didn't mean that. d) The newspapers quite ... criticize the government. 12. (pretty/prettily) a) The girl likes to be ... dressed. b) Your English is ... good now. 13. (hard/hardly) a) Just what he wanted, Presley ... knew. b) You have been working very ... lately. c) He was so tired that he could ... move.

#### **Ex. 3. Find a suitable place for the adverbials in brackets.**

1. He worked (hard, today, in the garden). 2. He climbed (awkwardly, out of the window). 3. He just walked, not waiting for the bus (quite often). 4. Don't worry, I get enough exercise – I walk (quite often). 5. He walked there only to enjoy the quietness of the place (often). 6. They lived there (for a year, quite happily). 7. But I doubt whether I shall ever visit Canada again (very much). 8. She looked up (in surprise). 9. He queued up

(at the bus stop, every day, patiently). 10. She lives (next door, actually). 11. They knew the town (apparently, well). 12. He couldn't run (enough, quickly). 13. Tom couldn't get the money (honestly, anywhere). 14. I'll buy one apple (just). 15. We came to the place where they were to wait for us (too early). 16. They stood (side by side, for a moment, in the doorway).

**Verb (Tense. Voice)**

**Ex. 1. Use the required present tense instead of the infinitives in brackets.**

1. I (to be) here too long. I (to want) to get away. 2. What he (to do) for a living? – He (to sing) and (to play) the guitar. – He (to play) for his friends or just for money? – I (not to know). – He (to have) a commercial concert soon? – Yes, on Saturday. 3. Where you (to be), Tommy? Look at your face! You're a sight! – Mummy, you always (to grumble)! 4. Everybody (to be) here? – No, Mr Black (not to come) yet. I think he (not to return) from abroad yet. He (to arrive) on Saturday. 5. The old man (to sit) in front of the fire since dinner-time. 6. I (not to have) a holiday for two years. 7. 'Gentlemen,' Andrew said. 'I just (to wait) for a good position – such as this – to get married.' 8. We (to take) two rooms in Dabney Street and we (to furnish) them now. 9. 'What you (to write) to him about?' she asked looking over my shoulder. 10. What you (to tell) me (to be) quite a romance. 11. For years you (to say) you (to be) trapped out, but you always (to get) through. 12. I (to read) the book you (to hold). 13. You always (to forget) something! 14. I (to grow) too fat! 15. Something (to worry) me all day! 16. All I (to know) is that somebody (to stick) pins into my wax image for years.

**Ex. 2. Use the Past Indefinite instead of the infinitives in brackets.**

1. Mrs Sunbury (to cut) the cake and (to put) a large piece on Betty's plate. 2. He (to look) at her for a moment with surprise. 3. Eric (to switch) on the wireless and (to sit) down beside it. 4. She (not to smile) when she (to see) him. 5. On the way home she usually (to buy) a slice of honeycake at the baker's. It (to be) her Sunday treat. 6. Three o'clock (to strike) , and four, and the half hour (to ring), but Dorian Gray (not to stir). 7. When he (to arrive) he (to find) the patient to be a small boy of nine years of age. 8. A little before nine o'clock I (to descend) to the ground floor. 9. When Eddy (to leave) in the morning he (to take) her photograph with him. 10. The girls (to sit) side by side at their desks, they (to lunch) together every noon, together they (to set) out for home at the end of the day's work. 11. A quarter of an hour later he (to hear) voices. 12. On the fifteenth of October Andrew (to set) out alone for London. 13. Bart's train (to get) into Central about half past five, and he (to go) to the servicemen's hostel and (to have) a both and a sleep. 14. The stranger (to climb) into his car and (to drive) away, and when he (to notice) later that his speedometer (to indicate) seventy-five, he (to laugh) at himself but (not to slow) down. 15. Clapper (to stare) at the photograph without a change of expression for at least half a minute.

**Verb (Tense. Voice)**

**Ex. 1. Use the Present Perfect or the Past Indefinite instead of the infinitives in brackets.**

1. You (to behave) like this ever since I first (to come) here. 2. It (to happen) when I (to be) out. 3. She just (to remind) me that we (to be) at school together. 4. I never (to have) the slightest desire to be an actress. 5. I (to meet) Tom this morning at the station. 6. I'm very sorry, Doctor, but Doctor Griffiths (to go) to Swansea on important business. 7. She (to finish) cleaning the bathroom, then she (to begin) peeling potatoes. 8. I (to see)

her name in the (papers) rather often of late. 9. They (to leave) just a week ago today. 10. Most of the children here (to have) measles already. 11. They (to talk) much that evening. 12. 'I (to do) something,' he (to think). 'Oh, I (to do) something real at last.' 13. The bell (to ring) repeatedly, but they (not to answer) it, and presently it (to stop). 14. You can't see Herb. He (to be) out. – No, he (not to be). I (to watch) him to go in with his dad and he (not to come) out yet. 15. She (to lift) her bag from the sideboard and (to take) out a two-shilling piece.. 16. 'Good morning, Mrs Watt,' she said. 'Eric (to tell) you what to do? 17. I (to love) you since I (to see) you walk into that classroom. 18. I don't think I (to be) out more than a couple of minutes. 19. The thing is that I (to come) to have a talk. 20. I'm her sister, and we (to have) only each other since Dad (to die).

**Ex. 2. Use the Past Indefinite or the Past Continuous instead of the infinitives in brackets.**

1. She (to go) to the back door, and as she (to raise) her hand to knock, the young man (to open) the door suddenly. 2. While the eggs (to boil) I (to go) out into the hall and (to phone) Jo. 3. He (to begin) to walk fast down the hedge; he couldn't see where he (to go). 4. She (to invite) him to the party she (to give) on Saturday. 5. He (to pause). They all (to look) at him now, interested. 6. She (to have) the satisfaction of seeing that Betty (to get) more and more ill at ease. 7. I (to wash), (to brush) my hair and we (to start). 8. It (to rain) hard and she (to run) for taxi. 9. Near her a small boy (to play) silently. 10. She (to look) up to see if we (to listen). 11. Next day, when the car (to come) we (to vanish) into the bush. 12. And all the while she (to think) how to get the money from Christie. 13. For the first time he (to notice) Heidi (to wear) a new dress: a simple affair of deep blue. 14. Lizzi (to eat) busily and (not to raise) her head. 15. It so (to happen) that she (to dine) that very evening at Timothy's. 16. Mrs Pimley (to come) into the drawing-room where we all (to sit) reading the papers after breakfast.

**Ex. 3. Use the Past Indefinite or the Past Perfect instead of the infinitives in brackets.**

1. Suddenly he (to grit) his teeth in angry exasperation. Not only he (to omit) to leave his card; he (to forget) to tell them who he (to be). 2. It (to be) perfectly true that he never (to take) the slightest interest in his clothes, a suit off the peg always (to serve) him excellently, (to cover) him, (to keep) him warm without elegance. 3. It (to be) nine o'clock and we (to come) to her room two hours before, as we (to do) often on those winter evenings. 4. At once Helen (to smile) at me; yet I (to see) that it (to be) an effort for her to clear her mind of what (to go) before. 5. Gideon (to wake) early that morning possibly because the ringing of the fire alarm (to be) in his mind most of the night. 6. He (to graduate) from Queen's College before he (to take) his master's degree at Christ Church, Oxford. 7. 'What he (to say)? Tell us! Tell us!' He (to tell) them what he (to say) and what the rector (to say) and, when he (tell) them, all the fellows (to fling) their caps and (to cry): 'Hurroo!' 8. When he (to come) back to his seat his manner (to change). He (to be) gentle and kind. 9. He (to see) he (to be) already further out than he (to hope) to be at this hour. 10. By the time Fenella (to take) off her coat and skirt and (to put) on her flannel dressing-gown, grandma (to be) quite ready. 11. No sooner we (to put) down our glasses than the waiter (to refill) them. 12. Inquiring for her at tea-time Soames (to learn) that Fleur (to be) out in that car since two.

**Ex. 4. Use the Present Indefinite or the Future Indefinite instead of the infinitive in brackets.**

1. I (not to mention) it unless he (to do). 2. You go home and if we (to see) Tommy Flynn we (to tell) him. 3. Within a week you (to agree) with me. 4. Of course it can't last,

but when it (to come) to an end it (to be) a wonderful experience for him. It really (to make) a man of him. 5. He (to dance) attendance upon her as long as she (to let) him. 6. I (not to work) any more today; I (to stay) with you. 7. I (not to want) Eliza to have the shock of your news until she (to make) it up with these two gentlemen. 8. He (to let) Mrs Rodd go free tonight – on condition that we all (to leave) tomorrow. 9. If you (not to intend) to go in for the whole day you'd better let me know and I (to ring) up when I (to get) to work and tell them you (to be) sick. 10. You just stay there until I (to tell) you, my girl, and I (to clean) up the house. 11. If you (to wait) ten minutes, I (run) both of us round in the car. 12. When you (to be) up in the sanatorium it (not to seem) so bad, I (to be) sure. 13. Now I (to tell) you a secret if you (too promise) not to tell anyone. 14. It (not to be) so long till we (to be) together and then it (not to be) so hard for him. 15. Once I (to get) her into one of those sanatoria, you (to have) no expenses at all, but until there (to be) a vacancy I can't get her in.

### **1.3 THE SOCIO-POLITICAL PORTRAIT OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND**

#### **GREAT BRITAIN**

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

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

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

**II. Read the following words and learn their meaning.**

- |                  |                       |
|------------------|-----------------------|
| 1) to refer      | обращаться, ссылаться |
| 2) to comprise   | включать, содержать   |
| 3) island        | остров                |
| 4) to occupy     | занимать              |
| 5) to influence  | оказывать влияние     |
| 6) current       | течение               |
| 7) infrequent    | нечастый              |
| 8) monarchy      | монархия              |
| 9) legislation   | законодательство      |
| 10) institution  | учреждение            |
| 11) issue        | вопрос, проблема      |
| 12) to represent | представлять          |
| 13) chamber      | палата                |
| 14) majority     | большинство           |
| 15) support      | поддержка             |
| 16) to appoint   | назначать             |
| 17) mining       | горная промышленность |
| 18) construction | строительство         |
| 19) abundant     | богатый, изобилующий  |
| 20) beverage     | напиток               |

21) insurance	страхование
22) stockbroking	биржевое маклерство
23) consultancy	консалтинг
24) livestock	домашний скот
25) poultry	домашняя птица
26) to damage	наносить ущерб

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

<i>to appoint</i>	<i>issue</i>	<i>construction</i>	<i>support</i>
<i>island</i>	<i>stockbroking</i>	<i>to comprise</i>	<i>current</i>
<i>to damage</i>	<i>mining</i>	<i>to influence</i>	<i>abundant</i>

- 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 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, goal, or purpose
- 8) the industry or activity of removing coal and other substances from the earth
- 9) to consist of particular parts or members
- 10) the work of building or making something, especially buildings, bridges, etc.
- 11) to have an effect on people or things
- 12) the job or activity of buying and selling stocks and shares for other people

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

#### GREAT BRITAIN

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

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

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

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

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

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

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

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

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

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

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

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

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

The UK has a strong manufacturing tradition that goes back to the origins of the Industrial Revolution. In the XIX century the UK was a world leader in producing key

materials associated with the Industrial Revolution: coal, steel, textiles, steam engines and ships. The most important manufactured products today are machinery, fuels, chemicals, food, **beverages**, tobacco. The UK is also the major supplier of vehicles, aerospace products, electrical and electronic equipment. The country is responsible for 10 % of the world's export of services, including banking, **insurance**, **stockbroking**, **consultancy** and computer programming. The main export partners are The USA, Germany, France, Ireland, the Netherlands, Belgium and Spain.

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

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

**V. Fill in the table below.**

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

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

- a) уникальная страна
- b) сухопутная граница
- c) расположение недалеко от океана
- d) с обильными осадками круглый год
- e) чрезвычайно изменчивы
- f) нынешний монарх
- g) выполнять различные официальные и представительские обязанности
- h) законодательный орган
- i) обсуждение текущих вопросов
- j) товарищи по партии
- k) богатые запасы природного газа, угля и атомной энергии



- l) электрическое и электронное оборудование
- m) экспорт услуг
- n) высокомеханизированный
- o) экологически чистые методы

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

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

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

1) The weather in the UK is _____, isn't it?	BORE
2) The United Kingdom consists of four _____ divisions.	POLICY
3) The British Isles is a _____ of over 6,000 islands.	COLLECT
4) High temperatures are _____ in the UK.	FREQUENT
5) The weather on the islands is extremely _____.	CHANGE
6) The British Constitution is based both on a parliamentary legislation and law _____.	DECIDE
7) The two houses of Parliament check the work of the _____.	GOVERN
8) The House of Commons is more _____.	POWER
9) Employees join a trade _____ in order to have their interests and goals better represented.	UNITE
10) In _____, the Kingdom has reserves of natural gas and coal.	ADD
11) The UK is one of the main _____ of aerospace products.	SUPPLY
12) The UK occurred to be among the world's first _____ countries.	INDUSTRY
13) Mixed farming is the _____ of arable and pastoral farming.	COMBINE
14) Market gardening is the _____ of fruits and vegetables.	PRODUCE

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

- 1) What is the official name of Great Britain?

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

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

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

## THE ENGLISH CHARACTER

### **I. 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 Scots, the Welsh and the Irish are somewhat different**.

**The Scots** 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 Scots 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 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.

**II. 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

**III. 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 believed to be lazy.

**Which of the statements are stereotypes?**

**IV. 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.

**V. 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"?**

**VI. 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**

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

1. refer [r'ɪfə:] – относиться, иметь отношение
2. occupy ['ɔkjupaɪ] – занимать
3. influence ['ɪnfluəns] – влияние, влиять
4. mild [maɪld] – мягкий
5. refresh [rɪ'freʃ] – освежать
6. explorer [ɪks'plɔ:rə] – исследователь
7. monarch ['mɒnək] – монарх
8. powerful ['paʊəfʊl] – сильный
9. division [dɪ'vɪʒən] – деление
10. delay [dɪ'leɪ] – откладывать, задерживать
11. defeat [dɪ'fi:t] – отменять
12. support [sə'pɔ:t] – поддерживать
13. emerge [ɪ'mə:dʒ] – появляться
14. appoint [ə'pɔɪnt] – назначать
15. pick [pɪk] – выбирать
16. oppose [ə'pəʊz] – выступать против
17. fellow ['feləʊ] – товарищ
18. salary ['sæləri] – жалованье, оклад
19. criticize ['krɪtɪsaɪz] – критиковать
20. survive [sə'vaɪv] – пережить, уцелеть
21. resource [rɪ'sɔ:s] – ресурсы, возможность
22. harvester ['hɑ:vɪstə] – уборочная машина
23. drilling machine ['drɪlɪŋ] [mə'ʃi:n] – сверлильный станок
24. household appliances [haʊshəʊld] [ə'plaɪənsɪz] – бытовая техника
25. remain [rɪ'meɪn] – оставаться
26. join [dʒɔɪn] – присоединяться

## **II. 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 the north-eastern part of the island of Ireland. Britain's longest rivers are the Severn and the Thames. Bristol, Liverpool, London, and other cities are important ports.

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

The United Kingdom has a rich history. The British started the Industrial Revolution, a period of rapid industrialization that began in the 1700s. 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 fact Britain can survive only by manufacturing and trading. The country's farms produce only about two-thirds of the food needed by the people. Except for coal, natural gas, and oil, Britain has few natural resources. The country must import about a third of its food and many of the raw materials it needs for manufacturing.

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

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

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

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

**III. Find one synonym to the first word in each row.**

1. powerful – influence – strong – refresh

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2. delay – postpone – occupy – refer

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3. support – defeat – mild – help

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4. emerge – leave – appear – appoint

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5. pick – join – take – oppose

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6. salary – fellow – explorer – payment

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7. resource – wealth – harvester – division

**IV. Find the suitable meaning to each of the words.**

1. survive –

a) dividing or being divided

2. remain –

b) assembly which makes laws

3. division –

c) continue to live or exist

4. plentiful –

d) higher in rank, authority

5. rapid –

e) In large quantities

6. senior –

f) moving, happening with great speed

7. legislature –

g) be still present

**V. Translate the sentences into Russian. Pay attention to the Infinitive.**

Example: The country is often said to have an unwritten constitution. Часто

говорят, что в стране нет конституции в письменном виде.

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

#### **VI. Complete the following sentences:**

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

Possible answers: north-western Europe; 244 000 sq km; plentiful rain; mild climate; rich history; the British Isles; Great Britain and Ireland; a third of its food; every five years; mixed farming.

#### **VII. Insert the missed parts of the sentences:**

1. Great Britain covers most of an \_\_\_\_\_ called the British Isles.
2. The U.K. has \_\_\_\_\_ throughout the year.
3. The British started the \_\_\_\_\_ in the 1700s.
4. A cabinet of senior politicians called ministers actually \_\_\_\_\_ the country.
5. The Constitution of the U.K. is not one \_\_\_\_\_, as are the constitutions of other countries.
6. Parliament makes the \_\_\_\_\_ of the country.
7. The House of Lords was once the \_\_\_\_\_ of Parliament.
8. The Prime Minister is usually the \_\_\_\_\_ of the political party that has the most seats in the House of Commons.
9. The king or queen appoints the \_\_\_\_\_ after each general election.
10. The U.K. is an important \_\_\_\_\_ and trading nation.

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

#### **VIII. 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?

**IX. 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.

**X. What do you think the authors meant by the following statements? Do you 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 (Colin MacInnes, British novelist, 1914-76).

**XI. Read the article and say in 2-5 sentences what it is about.**

London Celebrates 150 Years of the Tube

On January 9th 1863 the 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 night and 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 that a journey on it was 'a form of mild torture which no person would undergo if he could conveniently help it'. Today temperatures 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.

**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?

**XII. Speak about Great Britain with your groupmate in the form of a dialogue.**

**XIII. 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.

**I. Group the following words into nine synonymous groups.**

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

**II. 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.

**III. Group the words that follow into six antonymous groups.**

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

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

companies	goods	land
countries	government	petroleum
crops	imports	trade
economy	industry	workforce

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

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

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

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

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

### **I. 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.

Scotland 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 **Wales**.

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!

## **1.4 THE SOCIO-POLITICAL PORTRAIT OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND**



## GREAT BRITAIN

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

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

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

**II. Read the following words and learn their meaning.**

- |                  |                       |
|------------------|-----------------------|
| 1) to refer      | обращаться, ссылаться |
| 2) to comprise   | включать, содержать   |
| 3) island        | остров                |
| 4) to occupy     | занимать              |
| 5) to influence  | оказывать влияние     |
| 6) current       | течение               |
| 7) infrequent    | нечастый              |
| 8) monarchy      | монархия              |
| 9) legislation   | законодательство      |
| 10) institution  | учреждение            |
| 11) issue        | вопрос, проблема      |
| 12) to represent | представлять          |
| 13) chamber      | палата                |
| 14) majority     | большинство           |
| 15) support      | поддержка             |
| 16) to appoint   | назначать             |
| 17) mining       | горная промышленность |
| 18) construction | строительство         |
| 19) abundant     | богатый, изобилующий  |
| 20) beverage     | напиток               |
| 21) insurance    | страхование           |
| 22) stockbroking | биржевое маклерство   |
| 23) consultancy  | консалтинг            |
| 24) livestock    | домашний скот         |
| 25) poultry      | домашняя птица        |
| 26) to damage    | наносить ущерб        |

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

<i>to appoint</i>	<i>issue</i>	<i>construction</i>	<i>support</i>
<i>island</i>	<i>stockbroking</i>	<i>to comprise</i>	<i>current</i>
<i>to damage</i>	<i>mining</i>	<i>to influence</i>	<i>abundant</i>

- 13) existing in large quantities  
14) an important subject or problem that people discuss  
15) an area of land that has water around it  
16) to occur someone for a job  
17) to harm or break something  
18) the natural flow of air or water in one direction  
19) agreement with an industry, government, or person  
20) the industry or activity of removing coal and other substances from the earth

- 21) to consist of particular parts or members
- 22) the work of building or making something, especially buildings, bridges, etc.
- 23) to have an effect on people or things
- 24) the job or activity of buying and selling stocks and shares for other people

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

### **GREAT BRITAIN**

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

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

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

The main factor **influencing** the weather of the British Isles is their position close to the ocean. It means that the UK receives a large amount of rain. On the whole the country has a temperate climate with generally cool temperatures and plentiful rainfall all year round. Atlantic **currents** warmed by the Gulf stream bring mild winters, and British summers are cooler than those on the continent. In general the weather in the UK is often cloudy and rainy, and high temperatures are **infrequent**. In addition the weather conditions are extremely changeable. The English sometimes say you can't plan your day because every moment it can start to rain.

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

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

The work of the two houses of Parliament is similar: making laws, checking the work of the government, discussing the current **issues**. Nevertheless the House of Commons often called simply the Commons is more powerful as it decides which laws

will be discussed and passed. The House of Commons is publicly elected from the four political divisions that make up the United Kingdom. The UK voters elect 650 Members of Parliament (MPs) to **represent** their interests in the House of Commons.

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

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

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

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

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

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

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

The United Kingdom of Great Britain and Northern Ireland is one of the most

powerful nations and strongest economies in the world. It occurred to be among the world's first industrialized countries.

**V. Fill in the table below.**

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

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

- p) уникальная страна
- q) сухопутная граница
- r) расположение недалеко от океана
- s) с обильными осадками круглый год
- t) чрезвычайно изменчивы
- u) нынешний монарх
- v) выполнять различные официальные и представительские обязанности
- w) законодательный орган
- x) обсуждение текущих вопросов
- y) товарищи по партии
- z) богатые запасы природного газа, угля и атомной энергии
- aa) электрическое и электронное оборудование
- bb) экспорт услуг
- cc) высокомеханизированный
- dd) экологически чистые методы

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

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

weather	fact
extremely	centre
labour	conditions

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

1) The weather in the UK is _____, isn't it?	BORE
2) The United Kingdom consists of four _____ divisions.	POLICY
3) The British Isles is a _____ of over 6,000 islands.	COLLECT
4) High temperatures are _____ in the UK.	FREQUENT
5) The weather on the islands is extremely _____.	CHANGE
6) The British Constitution is based both on a parliamentary legislation and law _____.	DECIDE
7) The two houses of Parliament check the work of the _____.	GOVERN
8) The House of Commons is more _____.	POWER
9) Employees join a trade _____ in order to have their interests and goals better represented.	UNITE
10) In _____, the Kingdom has reserves of natural gas and coal.	ADD
11) The UK is one of the main _____ of aerospace products.	SUPPLY
12) The UK occurred to be among the world's first _____ countries.	INDUSTRY
13) Mixed farming is the _____ of arable and pastoral farming.	COMBINE
14) Market gardening is the _____ of fruits and vegetables.	PRODUCE

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

- 15) What is the official name of Great Britain?
- 16) What are the four geographical and political parts of the UK?
- 17) What are the largest cities of the country?
- 18) How does the geographical position influence the weather of the British Isles?
- 19) Why is the UK often said to have an unwritten constitution?
- 20) Who is the political leader of the country?
- 21) Who is the official head of the state?
- 22) What are the functions of the Houses of Parliament?
- 23) What are the main political parties in the United Kingdom?
- 24) What are the major segments of the British industry?
- 25) What are the most important manufactured products in the UK?
- 26) What services does the country export nowadays?
- 27) Which types of farming are practiced in the UK?
- 28) What does the term 'organic farming' mean?

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

- 8) Industry
- 9) Geographical position and population

- 10) Parliament and political parties
- 11) Agriculture
- 12) Political system
- 13) Official name
- 14) Climate

## THE ENGLISH CHARACTER

### **I. 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 Scots, the Welsh and the Irish are somewhat different**.

**The Scots** 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 Scots 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 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.

**II. 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

**III. 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 believed to be lazy.

**Which of the statements are stereotypes?**

**IV. 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.

**V. 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"?**

**VI. 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**

**I. Pronounce the following words correctly and learn their meaning:**

1. refer [r'ɪfə:] – относиться, иметь отношение
2. occupy [ˈɒkjupaɪ] – занимать
3. influence [ˈɪnfluəns] – влияние, влиять
4. mild [maɪld] – мягкий
5. refresh [rɪ'freʃ] – освежать
6. explorer [ɪks'plɔ:rə] – исследователь
7. monarch ['mɒnək] – монарх
8. powerful ['paʊəfʊl] – сильный
9. division [dɪ'vɪʒən] – деление
10. delay [dɪ'leɪ] – откладывать, задерживать
11. defeat [dɪ'fi:t] – отменять
12. support [sə'pɔ:t] – поддерживать
13. emerge [ɪ'mə:dʒ] – появляться
14. appoint [ə'pɔɪnt] – назначать



15. pick [pɪk] – выбирать
16. oppose [ə'pəʊz] – выступать против
17. fellow ['feləʊ] – товарищ
18. salary ['sæləri] – жалование, оклад
19. criticize ['krɪtɪsaɪz] – критиковать
20. survive [sə'vaɪv] – пережить, уцелеть
21. resource [rɪ'sɔ:s] – ресурсы, возможность
22. harvester ['hɑ:vɪstə] – уборочная машина
23. drilling machine ['drɪlɪŋ] [mə'ʃi:n] – сверлильный станок
24. household appliances [haʊshəʊld] [ə'plɑ:ɪənsɪz] – бытовая техника
25. remain [rɪ'meɪn] – оставаться
26. join [dʒɔɪn] – присоединяться

## **II. 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 the north-eastern part of the island of Ireland. Britain's longest rivers are the Severn and the Thames. Bristol, Liverpool, London, and other cities are important ports.

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

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

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

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

Parliament makes the laws of the United Kingdom. The British Parliament has been

called the Mother of Parliaments because many of the world's legislatures have copied features from it.

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

Of the two houses that make up Parliament, the House of Commons often called simply the Commons, is by far the more powerful. The House of Commons has 651 members, elected from the four divisions that make up the United Kingdom. A general election must be held at least every five years.

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

The two largest political parties in the United Kingdom are the Conservative Party and the Labour Party. The Conservative Party developed from the Tory Party, which began in the late 1600's. It has always been one of the main parties in Britain. The Labour Party began in 1900. Much of its support comes from 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 fact Britain can survive only by manufacturing and trading. The country's farms produce only about two-thirds of the food needed by the people. Except for coal, natural gas, and oil, Britain has few natural resources. The country must import about a third of its food and many of the raw materials it needs for manufacturing.

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

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

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

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

Norway, Saudi Arabia, Sweden and Switzerland.

**III. Find one synonym to the first word in each row.**

8. powerful – influence – strong – refresh

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9. delay – postpone – occupy – refer

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10. support – defeat – mild – help

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11. emerge – leave – appear – appoint

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12. pick – join – take – oppose

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13. salary – fellow – explorer – payment

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14. resource – wealth – harvester – division

**IV. Find the suitable meaning to each of the words.**

8. survive –

a) dividing or being divided

9. remain –

b) assembly which makes laws

10. division –

c) continue to live or exist

11. plentiful –

d) higher in rank, authority

12. rapid –

e) In large quantities

13. senior –

f) moving, happening with great speed

14. legislature –

g) be still present

**V. Translate the sentences into Russian. Pay attention to the Infinitive.**

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

8. A general election must be held at least every five years.

9. The House of Lords can delay, but not defeat, any bill that Commons is determined to pass.

10. From them, the prime minister picks a special group of about 20 ministers to make up the Cabinet.

11. Much of it is not even in writing, and so the country is often said to have an unwritten constitution.

12. His duty is to inform everybody immediately.

13. The opposition has the duty to criticize the government in power and standing ready to set up a new government.

14. Britain can survive only by manufacturing and trading.

**VI. Complete the following sentences:**

11. The United Kingdom is a country in \_\_\_\_\_.

12. The U.K. occupies an area of over \_\_\_\_\_.

13. The U.K. covers most of an island group called \_\_\_\_\_.

14. The British Isles consist of two large islands – \_\_\_\_\_.

15. The U.K. has a \_\_\_\_\_.

16. The sea winds also bring \_\_\_\_\_.

17. The U.K. has a \_\_\_\_\_.
18. The country must import \_\_\_\_\_.
19. A general election must be held at least \_\_\_\_\_.
20. Many British farmers practice \_\_\_\_\_.

Possible answers: north-western Europe; 244 000 sq km; plentiful rain; mild climate; rich history; the British Isles; Great Britain and Ireland; a third of its food; every five years; mixed farming.

### **VII. Insert the missed parts of the sentences:**

11. Great Britain covers most of an \_\_\_\_\_ called the British Isles.
12. The U.K. has \_\_\_\_\_ throughout the year.
13. The British started the \_\_\_\_\_ in the 1700s.
14. A cabinet of senior politicians called ministers actually \_\_\_\_\_ the country.
15. The Constitution of the U.K. is not one \_\_\_\_\_, as are the constitutions of other countries.
16. Parliament makes the \_\_\_\_\_ of the country.
17. The House of Lords was once the \_\_\_\_\_ of Parliament.
18. The Prime Minister is usually the \_\_\_\_\_ of the political party that has the most seats in the House of Commons.
19. The king or queen appoints the \_\_\_\_\_ after each general election.
20. 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.

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

13. What is the official name of Great Britain?
14. Where are the British Isles situated?
15. What are the four political divisions of the United Kingdom?
16. Why does the United Kingdom have a mild climate?
17. What can you say about the state organization of the United Kingdom?
18. Why is the British Parliament called the Mother of Parliaments?
19. What are the main political parties in the United Kingdom?
20. What is the ruling political party in Great Britain at present?
21. Who is the prime minister in the United Kingdom nowadays?
22. Who was the first woman to hold the office of prime minister of the United Kingdom?
23. Does the United Kingdom rank among the top industrial countries?
24. What British industry did the Industrial Revolution begin in?

### **IX. 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?

7. The geographical position and population.
8. The country's history and state system.
9. The political parties.
10. The industry of the country.
11. British agriculture.
12. The country's trade.

**X. What do you think the authors meant by the following statements? Do you 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 (Colin MacInnes, British novelist, 1914-76).

**XI. Read the article and say in 2-5 sentences what it is about.**

London Celebrates 150 Years of the Tube

On January 9th 1863 the 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 night and 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 that a journey on it was 'a form of mild torture which no person would undergo if he could conveniently help it'. Today temperatures 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.

**Answer the following questions:**

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

**XII. Speak about Great Britain with your groupmate in the form of a dialogue.**

**XIII. 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.

**I. Group the following words into nine synonymous groups.**

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

**II. 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.

**III. Group the words that follow into six antonymous groups.**

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

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

companies	goods	land
countries	government	petroleum
crops	imports	trade
economy	industry	workforce

The United Kingdom has a developed mixed private and public-enterprise (1) that

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

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

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

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

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

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

### **I. 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.

Scotland 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 Wales.

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!

## GRAMMAR EXERCISES

### *Verb (Tense. Voice)*

**Ex. 1. Use the required future or present tense instead of the infinitives in brackets.**

1. I expect we (to see) a lot of each other. 2. I (to get) old and (to have) children by then. 3. In a minute I (to join) you, my friend. 4. She knows that if she (to come) she (to have) a chance of a happier and surer life than she has had. 5. You don't think it (to rain), do you? 6. In a week you (to drive) with this woman in the Park. She (to be) your constant guest, your dearest friend. 7. I (to start) out on my round by the time you (to go). 8. I (to think) of you day and night. 9. If you (to mention) her name again, I (to knock) you down. 10. You (to stay) in Rome long? 11. Why, we (to work) all night and (to finish) everything by midday tomorrow. 12. Bart and your mother (to come) to dinner. 13. I (to stink) American until I (to drop) dead. 14. Our people (to wait) at the emergency entrance. 15. Mum, I think we (to leave) for Chicago sooner than we thought. We (to start) getting ready tomorrow morning.

**Ex. 2. Use the required tense of the Passive Voice instead of the infinitives in brackets.**

1. Each candidate (to question) in turn by two separate examiners. 2. Andrew saw at once that she (to instruct) carefully beforehand. 3. He insisted on seeing the article before it (to publish). 4. While the meal (to prepare) the mother sat by the sick child's bedside. 5. Jennie (not to forget). We all remember her. 6. He opened his eyes and (to blind) by a circle smaller than the moon. 7. Not a single copy of the books he spoke of ever (to ask). 8. I (to inform) that you (to see) in Church Street in conversation with a young gentleman.

9. The room just (to move) into, it smells wet paint. 10. He didn't utter a word, knowing that whatever he said (to meet) by the same silence. 11. My question (not to answer) properly yet. 12. The shop looked shabbier in artificial light: the shelves were dusty and the ceiling (not to paint) since I went there.

**Ex. 3. Use the required passive forms instead of the infinitives in brackets.**

1. Her brother (to elect) president of the new concern. 2. Do you know how pictures (to sell) nowadays? 3. She stared at the picture that (to snap) the night before at Morocco. 4. Back in the living-room, when coffee (to pour), Lily excused herself and left us. 5. Soames thought that perhaps Irene knew she (to shadow). 6. Then he wanted tools and nails, and soon all the closets and shelves (to put) in order. 7. As his eyes cleared he saw that the lantern (to hold) in the air. 8. He felt he (to enlist) for the fight, that some duty (to lay) upon his shoulders. 9. The lists (to send) to both newspapers and now (to print). 10. There was vibration on the ground floor, and even more on the second, where I (to take). 11. When the goods (to pay) for a heavy freight wagon halted in front of the store. 12. In company with Suel James they ate dinner. While cigarettes (to roll) after the meal, Nowlen and his foreman went into the office. 13. All the things that Roberta and Harmon did for Ted (to do) for themselves long before Ted was born. 14. The ash-trays still held last night's cigarette ends, the sofa pillows (not to straighten), and there were two magazines on the floor in the exact position in which they (to leave) the previous night. 15. Don't keep telling me I'm pretty. I (to tell) that ever since I was twelve. 16. The letter said that for his thesis Andrew (to award) his M.D. 17. She looks like a spoiled child who (to punish). 18. Do you realize that these animals (to use) to save men's lives, perhaps your own lives?

**Ex. 4. Use the required active or passive forms instead of the infinitives in brackets.**

1. He (not to waste) time with foolish questions like why, when and where. He (to do) as he (to tell). 2. Always a punctual woman, she (to come) downstairs as the front door (to open) for Charles. 3. Some kind of public demonstration (to plan) to take place at the airport tonight. 4. The flight (not to announce) yet. It (not to announce) for another half-hour, at least. 5. The message, as Tanya (to dictate) it, (to type) by a girl clerk in New York. 6. She could tell by the inclination of his head that he (to listen) intently to everything that (to say). 7. It (to be) an old house that (to divide) into flats. 8. Julia can't know what (to say) about her, and someone must tell her. 9. Each apartment usually (to share) by two or three girls. They (to know) as stewardess' nests. 10. Inez (to occupy) a chair in the room's centre to which she (to guide) on arrival. 11. He (to see) that the doors of Trans America Flight Two (not to close) yet, and a few remaining passengers still (to check) in.

**1.4. BREST STATE TECHNICAL UNIVERSITY IN THE SYSTEM OF HIGHER EDUCATION OF THE REPUBLIC OF BELARUS**

**Vocabulary:**

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



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	ООО
10) extra-mural	заочный
11) degree	степень
12) dormitory	общежитие

**II. Read the text Brest State Technical University and decide whether it is a one of the best universities in our country. Prove your opinion.**

**INTRODUCTION**

Brest State Technical University is one of the largest scientific and educational centres in the western part of the Republic of Belarus. BrSTU enables **training** of highly qualified specialists and **conducts** fundamental scientific **researchwork** 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 Department of Pre-University Training young people can revise and consolidate what they have learnt at secondary school to successfully pass their entrance examinations at the University. Here they are also provided with the guidance in the choice of their future speciality and prospects of professional career. The Faculty offers a wide range of programs to satisfy various demands of young people seeking for extensive study curriculum:

- evening and extramural preparatory courses for high school students; the courses optionally cover mathematics, physics, a foreign language, drawing, and technical drawing;
- short-term pre-university courses covering one subject at a student's option;
- a full-time or correspondence pre-university course for holders of a secondary education certificate; the course covers several subjects at a student's option;
- a full-time pre-university for international students.

International students who have no command of the Russian language or whose



Russian language proficiency may not yet have reached a suitable standard for study can follow a one-year course at the Pre-University Department. The course provides students with elementary and advanced learning of the Russian language with a specialization in the subjects which are relevant to the students' chosen line.

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

#### Professional and Teaching Staff

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

#### Development Tendencies

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

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

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

The University main research lines are the following:

- building units and materials, roof coatings, pavements, organization of labour, techniques, design engineering;
- wear-resistant composite materials, resource-saving and material-strengthening technologies in mechanical engineering;
- novel technologies of fuel utilization;
- advanced water distribution and water supply systems, rational nature management schemes;
- environmental protection, ecological security;
- neuron-type computer network systems of artificial intellect; ultrasound technologies, luminescent light-emitters.

## University Facilities

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

## Non-Academic Opportunities

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

## *Canteens*

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

## *Hostels*

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

## *Dispensary*

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

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

## International Contacts

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

training activity and scientific research.

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

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

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

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

#### CONCLUSION

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

**III. Make a presentation about your faculty. You may use information from the English version of official BrSTU website.**

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

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

#### **V. Translate the following quotations and comment upon them**

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

Oscar Wilde

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

Albert Einstein

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

Abraham Lincoln

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

Mark Twain

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

Nelson Mandela

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

Martin Luther King

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

Aristotle

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

Marian Wright Edelman

*An investment in knowledge pays the best interest.*

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

## **MY UNIVERSITY. WELCOME TO BREST STATE TECHNICAL UNIVERSITY**

### **I. 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 [praɪ'ɔrɪtɪ] – приоритет
5. available [ə'veɪləbl] – доступный
6. access ['æksəs] – доступ
7. compliance [kəm'plaɪəns] – соответствие
8. application [æplɪ'keɪʃən] – применение
9. enable [ɪ'neɪbl] – дать возможность
10. award [ə'wɔ:d] – присуждать, награждать
11. evident ['evɪdənt] – очевидный
12. creation [kri'eɪʃn] – создание
13. determine [dɪ'tə:mɪn] – определять
14. advantage [əd'vɑ:ntɪdʒ] – преимущество
15. responsibility [rɪs,pɔnsɪ'bɪlɪtɪ] – ответственность
16. possess [pə'zes] – обладать, владеть
17. require [rɪ'kwaɪə] – требовать

18. facilities [fə'sɪlɪtɪz] – оборудование
19. fit [fɪt] – соответствовать
20. rank [ræŋk] – занимать какое-либо место
21. invention [ɪn'veɪʃn] – изобретение
22. trial ['traɪəl] – пробный
23. amenities [ə'mi:nɪtɪz] – всё, что соответствует хорошему настроению
24. recreation [rɪkri'eɪʃn] – развлечение, отдых
25. participate [pɑ:tɪsɪpeɪt] – участвовать

## **II. 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 program defined 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 of specialization, 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 get higher 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 got a 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 staff 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 a standard of professional training. BSTU is 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 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 range high 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 and Portugal. 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.

### **III. Complete the sentences:**

1. The state policy of the Republic of Belarus in the 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...  
-----

**IV. Find the synonym to the first word in each row:**

1. award – give – access – enable  
-----

2. determine – extra-mural – decide – compliance  
-----

3. possess – advantage – possible – own  
-----

4. require – depend – need – combine  
-----

5. recreation – invention – staff – refreshment  
-----

6. stock – supply – trial – research  
-----

7. state – express – carry – deliver  
-----

**V. 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        |

**VI. 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.

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7. Full-time learning is the most widespread.

-----

**VII. 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?

**VIII. 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 scientific centres?
  2. When was the University founded?
  3. Who contributes a lot to the development of science and engineering?
  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.

**IX. 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 thing 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).

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

### **BREST STATE TECHNICAL UNIVERSITY**

#### **I. 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.

## **GRAMMAR EXERCISE**

### ***Modal verbs***

**Ex. 1. Fill in the blanks with the verbs can or may.**

1. It ... have been anything serious, or I should have remembered. 2. You ... have noticed that I happen to wear my hair rather long. 3. She ... never remember clearly what came after. 4. You ... have noticed he was not himself at lunch. 5. If she ... only see what he's really like! 6. ... I now and then come and sit here and talk to you? 7. I ... have more questions to ask you later. 8. ... you possibly lend us a hundred pounds? 9. It ... have been some days ago – weeks perhaps. Or – it ... have been yesterday afternoon. 10. One ... not know, you see, what is important. 11. He chose an inside table against the back wall where he ... look over the other tables to the people walking in the street. 12. Of course, I ... be imagining it, but I don't think I am. 13. Be careful – did you hurt yourself? You ... have struck your head on that marble chimney-piece. 14. 'Shirley, don't hate me.' – 'Hate you? How ... I hate you?' 15. I ... have one or two people coming in tomorrow evening. Why not join us? 16. I ... not bring myself to forgive him. 17. ... I order you something? 18. Shirley ... have told you what she wouldn't like to tell me. 19. She ... see no harm in just bringing Josephine on the terrace. 20. You ... have seen Mr de Winter's name in the papers recently. 21. She turned on the light as though it ... warm her. 22. Yes, it was awful, but what ... I do? – You ... have asked my advice!. 23. Harry ... often be seen sitting on the porch with a pipe in his mouth.

**Ex. 2. Fill in the blanks with the verbs can, may or must.**

1. Perhaps he went to the beach by another way, I ... have missed him. 2. They ... not have had the key. It never left me day and night. 3. 'Impossible,' I cried. 'You ... be making a mistake.' 4. Will you give him these cards and ask if we ... see him for a moment? 5. You ... go upstairs and use our bathroom. 6. But surely he ... have gone to the wrong flat. That is the only possible solution. 7. Yes, you ... leave the room now. But be careful. 8. She ... have been talking to your father, she ... not have been talking to anyone else. 9. He's honest enough, whatever else he ... be. 10. You absolutely ... come and see that place. 11. He was a nice-looking young fellow with a touch of graying hair at the temples though he ... not have been much over thirty. 12. I strolled across the lawn to the house, aware that they ... be watching me still from a chink in the shutters. 13. Let me introduce you to Monsieur Poirot, of whom you ... often have heard. 14. But it ... not have been anything serious, or I should have remembered. 15. Some astonishment ... have shown itself on his face, for she looked at him and paused. 16. Perhaps it ... have been better if you hadn't written letters to us. 17. She asked the fishmonger if she ... leave the basket with him while she got some other things. 18. ... I have some more of that delicious salad, do you think? 19. Helena, you ... not leave him. He needs you, I know he needs you. 20. I adore Scarlatti. Partly because only musicians ... play him. 21. I ... have been the first person to put on that mackintosh since the handkerchief was used. 22. What you tell me ... be true, but it happened many years ago. 23. Her hair hung down so that Anne ... not see her face. 24. It ... have been twenty minutes past seven when he heard the call. That ... be a fact useful to the police if anything ... be discovered. 25. I ... swim when I was five. Daddy taught me. 26. You ... also address me as Aunt Augusta for the future.

**Ex. 3. Fill in the blanks with must, have to or be to.**

1. To work with method, one ... begin from the beginning. 2. I ... be getting sentimental. 3. Nowadays one ... do nearly everything oneself. 4. I ... think who she was talking about. She ... have meant your father. 5. He ... leave the vessel at Melbourne and go off at once to the gold-fields. 6. I had left my key at home, and my servant ... let me in. 7. I ... be mad, coming here like this. 8. We ... dine together and then go to the Opera. 9. But who was it – Daniels or O'Murphy? It ... have been one of the two. 10. The man lost his way and ... drive back half a mile. 11. It seemed horrible to him that it was here the fatal portrait ... be hidden away. 12. The man ... touch him twice on the shoulder before he woke. 13. This was comedy, one ... not make it into tragedy. 14. Two days ago I

asked Sybil to marry me. I am not going to break my word to her. She ... be my wife. 15. I am afraid that you ... go back the way you came. There is no through road. 16. She ... not to return to dear Mamma or to Sheffield, not ever again. 17. The next afternoon there ... be an attack up the river. 18. The carriage ... have come back by this time. 19. Sooner or later we all ... pay for what we do. 20. I asked what time the attack ... be and they said as soon as it was dark. 21. I was very hot and ... take a drink of beer to cool my mouth.

**Ex. 4. Fill in the blanks with the verbs can, may, must, should, ought, need, have to, be to.**

1. At this time Strickland ... have been nearly forty-seven. 2. ‘Real friends ... have everything in common,’ the Miller used to say. 3. Surely he ... have stayed with her on her birthday! 4. She ... never have married him! 5. You ... not bother with these things here for you are among friends. 6. If anything ... happen to me, my wife will be left very badly off. 7. That young American chap ... have overheard something too. 8. Tell him I’d wait twenty years for him if I .. do. 9. This ... be the very last dinner he would ever eat at Ella’s. 10. He ... go to business, why ... other people stay in bed merely because it was dark and foggy? 11. I ... have insisted on going by myself and who knows I ... have got a job when I got to London. 12. You ... not be afraid, I never cry. 13. Why ... you and I talk about it? 14. He suggested that I ... stay with him for a few days so that he ... show me something of the surrounding country. 15. It ... be a tiny path, or it ... extend for miles. 16. I think I ... find some girl, who’ll just look after me. 17. Well, my dear fellow, you ...not eat as if you were going to eat it all. 18. Harris said there ... have been twenty people following him in all. 19. It was of himself and his own future, that he ... think. 20. It’s not my secret. But I’ll see what I ... do, because I think both you and John ... be told. 21. I ... say that you ... have shown more consideration. 22. It’s absurd to have a hard and fast rule about what one ... read and what one ... not.

## **2.1. BUILDING MATERIALS FOR ROADS CONSTRUCTION**

### **ROAD**

A *road* is an identifiable route or path between two or more places. Roads are typically smoothed, paved, or otherwise prepared to allow easy travel; though they need not be, and historically many roads were simply recognizable routes without any formal construction or maintenance. In urban areas roads may pass along and be named as streets, serving a dual function as urban space and route.

### **USAGE AND ETYMOLOGY**

In original usage, a “road” was simply any pathway fit for riding (“road” is cognate with “ride”). The word “street,” whose origin is the Latin *strata*, was kept for paved pathways that had been prepared to ease travel in some way. Thus, many “Roman Roads” have the word “street” as part of their name. However, modern usage does not usually make this distinction and it is only important since place names often hold the earlier usage in them; these days, roads are also prepared in some way. This includes, at least, the

removal of trees and smoothing the ground. In some dialects, lower grade roads are called trails and tracks and it is uncertain where “road” begins and “trail” ends. Roads are a prerequisite for road transport of goods on wheeled vehicles. The word “road” emphasizes its function of transportation along its length, while a “street” may be considered to have activity and commerce taking place on it.

### Pavement (material)

This article is about the American English usage of *pavement* as the durable surfacing of roads and walkways. In British English, *pavement* is usually taken to mean a footpath next to a road, the same as sidewalk in American English.

*Pavement* in American English refers to the durable surface for an area intended to sustain traffic, which can be either vehicular traffic or foot traffic. The most common modern paving methods are asphalt and concrete. In the past, brick was extensively used, as was metalling. Today, permeable paving methods are beginning to be used more for low-impact roadways and walkways.

### METALLING

Metal or metalling has had two distinct usages in road paving. Metalling originally referred to the process of creating a carefully engineered gravel roadway. The route of the roadway first would be dug down several feet. Depending on local conditions, drains may or may not have been added. Next, large stone was placed and compacted, followed by successive layers of smaller stone, until the road surface was a small stone compacted into a hard, durable surface.

Road metal later became the name of stone chippings mixed with tar to form the road surfacing material tarmac. A road of such material was called a “metalled road” in British usage, although this would be very rare in modern usage. It would be more common to refer to a macadam road. The word *metal* is derived from the Latin *metallum*, which means both “mine” and “quarry”, hence the road building terminology.

### ASPHALT PAVING



A road in the process of being resurfaced, showing both old and new asphalt surfaces.

*Asphalt* (specifically, asphalt concrete) has been widely used since 1920-1930, though in ancient times asphalt was already used for road-building. The viscous nature of the bitumen binder allows asphalt concrete to sustain significant plastic deformation, although fatigue from repeated loading over time is the most common failure mechanism. Most asphalt pavements are built on an imported gravel base which is generally at least as thick as the asphalt layer, although some “full depth” pavements are built directly on the native subgrade. In areas with very soft or expansive subgrades such as clay or peat, thick gravel

bases or stabilization of the subgrade with Portland cement or lime can be required. In some countries with soft soils, a foundation of polystyrene blocks is used instead. The actual material used in paving is termed HMA (Hot Mix Asphalt).

Advantages of asphalt roadways include relatively low noise, relatively low cost compared with other paving methods, and ease of repair. Disadvantages include less durability than other paving methods, less tensile strength than concrete, the tendency to become slick and soft in hot weather and a certain amount of hydrocarbon pollution to soil and groundwater or waterways.

## **CONCRETE PAVING**

Concrete pavements (specifically, Portland cement concrete) are created using a concrete mix of Portland cement, gravel, and sand. The material is applied in freshly-mixed slurry, and worked mechanically to compact the interior and force some of the thinner cement slurry to the surface to produce a smoother, denser surface free from honeycombing. Cement concrete can be either reinforced or non-reinforced. Non-reinforced pavements will typically have joints at a 5 meter interval. Reinforced concrete pavements can have a much longer joint spacing, or no built-in joints at all. Typical reinforcement used includes “rebar” (reinforcing steel) or wire mesh or both.

Vertical misalignment of the joints, known as joint faulting, can be caused by differential settlement of the substrate, and are a source of driver annoyance. A common failure mode of concrete pavements is loss of support of the slab edges or corners due to erosion of the foundation material. If this condition is caught before it leads to breakup of the slab, support can be restored by filling the void with grout or foam in a process known as “mud jacking” or “slab jacking”.

Advantages of cement concrete roadways include that they are typically stronger and last longer than asphalt concrete pavements. They also can easily be grooved to provide a durable skid-resistant surface. Disadvantages are that they have a higher initial cost, are more difficult to repair, and are also somewhat noisy if jointed, but unjointed concrete pavement is actually a method of road noise mitigation.

The record for first mile of concrete pavement to be laid in the United States is claimed by Michigan.

## **BITUMINOUS SURFACE TREATMENT (BST)**

Bituminous Surface Treatment (BST) is used mainly on low-traffic roads, but also as a sealing coat to rejuvenate an asphalt concrete pavement. It generally consists of aggregate spread over sprayed-on asphalt emulsion or cut-back asphalt cement. The aggregate is then embedded into the asphalt by rolling it, typically with a rubber-tired roller. BSTs of this type are described by a wide variety of regional terms including “chip seal”, “tar and chip” and “seal coat”.

Other types of BSTs include micropaving, slurry seals and Novachip. These are laid down using specialized and proprietary equipment. They are most often used in urban areas where the roughness and loose stone associated with chip seals is considered undesirable.

## **OTHER PAVING METHODS**



Cobbles

Pavers, generally in the form of pre-cast concrete blocks, are often used for aesthetic purposes, or sometimes at port facilities that see long-duration pavement loading. Pavers are rarely used in areas that see high-speed vehicle traffic.

Brick, cobblestone and wood plank pavements were once common in urban areas throughout the world, but due to their high manual labor requirements they are in some countries typically only maintained for historical reasons, while in other countries they are still common in local streets. They make maintenance of cabling and pipelines under the pavement easier but are also harder to walk on.

Likewise, macadam and tarmac pavements can still sometimes be found buried underneath asphalt concrete or Portland cement concrete pavements, but are rarely constructed anymore.

As pavement systems primarily fail due to fatigue (in a manner similar to metals), the damage done to pavement increases exponentially with the axle load of the vehicles traveling on it. Civil engineers consider truck axle load, current and projected truck traffic volume, supporting soil properties and sub-grade drainage in design. Passenger cars are considered to have no practical effect on a pavement's service life.

Several pavement design methods have been developed to determine the thickness and composition of pavement required to carry predicted traffic loads for a given period of time. Pavement design methods are continuously evolving.

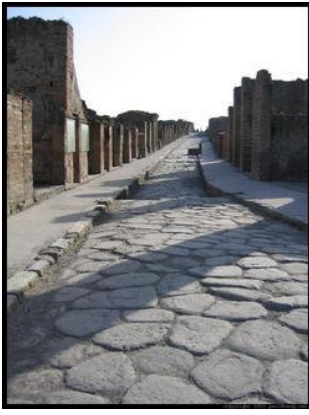
According to some , heavily loaded trucks can do more than 10,000 times the damage done by a normal passenger car. Tax rates for trucks are higher than those for cars in most countries for this reason, though are not levied in proportion to the damage done.

### **DRIVING ON THE RIGHT OR ON THE LEFT**

Traffic drives on the right or on the left side of the road depending on the country. In countries where traffic drives on the right, traffic signs are mostly on the right side of the road, roundabouts and traffic circles go counter-clockwise, and pedestrians crossing a two-way road should watch out for traffic from the left first. In countries where traffic drives on the left, the reverse is true. Traffic flow and road design in both cases are each other's mirror image.

## **2.2. FROM THE HISTORY OF THE ROADS BUILDING**

### **HISTORY. ROMAN ROAD**



A Roman road in Pompeii

The Roman roads were essential for the growth of their empire, by enabling them to move armies. A proverb says that “all roads lead to Rome”. Roman roads were designed that way to hinder provinces organizing resistance against the Empire. At its peak, the Roman road system spanned 53,000 miles (85,300 km) and contained about 372 links.

The Romans, for military, commercial and political reasons, became adept at constructing roads, which they called *viae* (plural of singular *via*). The word is related to the English “way”.

These long highways were very important in maintaining both the stability and expansion of the empire. The legions made good time on them, and some are still used millennia later. In late Antiquity these roads played an important part in Roman military reverses by offering avenues of invasion to the barbarians.

## **TYPES OF ROADS**

Roman roads vary from simple corduroy roads to paved roads using deep roadbeds of tamped rubble as an underlying layer to ensure that they kept dry, as the water would flow out from between the stones and fragments of rubble, instead of becoming mud in clay soils.

Prepared *viae* began in history as the streets of Rome. The laws of the Twelve Tables, dated to approximately 450 BC, specify that a road should be 8 feet wide where straight and 16 where curved. The Tables commanded the Romans to build roads and give wayfarers the right to pass over private land where the road is in disrepair. Building roads that would not need frequent repair therefore became an ideological objective. Roman law defined the right to use a road. The “right of going” established a right to use a footpath, across private land; the “right of driving” – a carriage track. A *via* combined both types of rights, provided it was of the proper width, which was determined as 8 feet. In these rather dry laws we can see the prevalence of the public domain over the private, which characterized the republic.

A *via* connected two cities. Some links in the network were as long as 55 miles. The builders aimed at directional straightness. Many long sections are ruler-straight, but it should not be thought that all of them were. The Roman emphasis on constructing straight roads often resulted in steep grades relatively impractical for most economic traffic: over the years the Romans themselves realized it and built longer, but more manageable, alternatives to existing roads. *Viae* were generally centrally placed in the countryside. Either main or secondary roads might be paved, or they might be left unpaved, with a gravel surface, as they were in North Africa. These prepared but unpaved roads were *viae sternendae* (“to be strewn”). Beyond the secondary roads were the *viae terrenae*, “dirt roads”. A road map of the empire reveals that it was laced fairly completely with a



network of prepared *viae*. Beyond the borders are no roads; however, one might presume that footpaths and dirt roads allowed some transport.

## Milestones



Miliarium (milestone)



Potaissa Napoca Miliarium

After 124 BC most *viae* were divided into numbered miles by *milestones*. The words we translate as mile are *milia passuum*, “one thousand of paces”, which amounted to about 1620 yards, 1480 meters. A milestone, or *miliarium*, was a circular column on a solid rectangular base, set two feet into the ground, standing several feet high, 20" in diameter, weighing about 2 tons. At the base was inscribed the number of the mile relative to the road it was on. In a panel at eye-height was the distance to the Roman Forum and other information about the officials who made or repaired the road.



Remains of the *miliarium aureum* in the Roman Forum.

The Romans had a preference for standardization whenever they could, and so Augustus, after becoming permanent commissioner of roads in 20 BC, set up the golden milestone near the temple of Saturn. All roads were considered to begin from this gilded bronze monument. On it were listed all the major cities in the empire and distances to them. Constantine called it the navel of Rome.

Milestones permitted distances and locations to be known and recorded exactly. It wasn't long before historians began to refer to the milestone at which an event occurred.

## Way Stations

A legion on the march didn't need a way station, as it brought its own baggage train and constructed its own camp (*castra*) every evening at the side of the road. Other officials or people on official business, however, had no legion at their service, and so the government maintained way stations, or *mansiones* (“staying places”), for their use. Passports were required for identification.

Carts could travel about 8 miles per day, pedestrians a little more, and so each *mansio* was about 15 to 18 miles from the next one. There the official traveller found a complete villa dedicated to his refreshment. Oftentimes a permanent military camp or a town grew up around the *mansio*.

Non-official travellers needed refreshment too, and at the same locations along the road. A private system of *cauponae* were placed near the mansiones. They performed the same functions but were somewhat disreputable, as they were frequented by thieves. Graffiti decorate the walls of the few whose ruins have been found.

Genteel travellers needed something better than *cauponae*. In the early days of the *viae*, when little unofficial existed, houses placed near the road were required by law to offer hospitality on demand. Frequented houses no doubt became the first *tabernae*, which were hostels, rather than the “taverns” we know today. As Rome grew, so did its *tabernae*, becoming more luxurious and acquiring good or bad reputations as the case may be. One of the best hotels was on the Via Appia. It had a large storage room containing barrels of wine, cheese and ham.

A third system of way stations serviced vehicles and animals: the *mutationes* (“changing stations”). They were located every 12-18 miles. In these complexes, the driver could purchase the services of wheelwrights, cartwrights, and veterinarians. Using these stations in chariot relays, the emperor Tiberius hastened 500 miles in 24 hours to join his brother, Drusus Germanicus, who was dying of gangrene as a result of a fall from a horse.

## Vehicles

Roman law and tradition forbade the use of vehicles in urban areas, except in certain cases. Married women and government officials on business could ride. The law restricted commercial carts to night-time access to the city within the walls and within a mile outside the walls. Outside the cities, Romans were avid riders and rode on or drove quite a number of vehicle types, some of which are mentioned here.

For purposes of description, Roman vehicles can be divided into the car, the coach and the cart. Cars were used to transport one or two individuals, coaches were used to transport parties, and carts to transport cargo.

Of the cars, the most popular was the *currus* (“car”), a standard chariot form descending to the Romans from a greater antiquity. The top was open, the front closed. One survives in the Vatican. It carried a driver and a passenger. A *currus* of two horses was a *biga*; of three horses, a *triga*; and of four horses a *quadriga*. The tyres were of iron. When not in use, its wheels were removed for easier storage.

A more luxurious version, the *carpentum*, transported women and officials. It had an arched overhead covering of cloth and was drawn by mules. A lighter version, the *cisium*, equivalent to our gig, was open above and in front and had a seat. Drawn by one or two mules or horses, it was used for cab work, the cab drivers being called *cisiani*.

The coach had 4 wheels. The high sides formed a sort of box in which seats were placed, with a notch on each side for entry. It carried several people with baggage up to the legal limit of 1000 pounds. It was drawn by teams of oxen, horses or mules. A cloth top could be put on for weather, in which case it resembled a covered wagon. It was probably the main vehicle for travel on the *viae*.

Of the carts, the main one was the *plaustrum* or *plostrum*. This was simply a platform of boards attached to wheels and a cross-tree. The wheels were solid and were several

inches thick. The sides could be built up with boards or rails. A large wicker basket was sometimes placed on it. A two- and a four-wheel version existed.

### **THE ITINERARY**

The Romans and ancient travellers in general did not use maps. They may have existed as special items in some of the libraries, but they were hard to copy and were not in general use. On the Roman road system, however, the traveller needed some idea of where he was going, how to get there, and how long it would take. The itinerary filled this need. In origin it was simply a list of cities along a road. It was only a short step from lists to a master list. To sort out the lists, the Romans drew diagrams of parallel lines showing the branches of the roads. Parts of these were copied and sold on the streets. The very best featured symbols for cities, way stations, water courses, and so on. They cannot be considered maps, as they did not represent landforms.

The Roman government from time to time undertook to produce a master itinerary of all Roman roads. Julius Caesar and Mark Antony commissioned the first known such effort in 44 BC. Zenodotus, Theodotus and Polyclitus, three Greek geographers, were hired to survey the system and compile a master itinerary. This task required over 25 years. The result was a stone engraved master itinerarium set up near the Pantheon, from which travelers and itinerary sellers could make copies.

### **CONSTRUCTION OF A ROAD**

The Romans are believed to have inherited the art of road construction from the Etruscans. No doubt the art grew as it went along and also incorporated good ideas from other cultures.

After the architect looked over the site of the proposed road and determined roughly where it should go, the *agrimensores* went to work surveying the road bed. They used two main devices, the rod and one called the *groma*, which helped them obtain right angles. The *gromatici*, the Roman equivalent of rod men, placed rods and put down a line called the *rigor*. As they did not possess anything like a transit, an architect tried to achieve straightness by looking along the rods and commanding the *gromatici* to move them as required. Using the *gromae* they then laid out a grid on the plan of the road.

The *libratores* began their work. Using ploughs and legionaries with spades, they excavated the road bed down to bed rock or at least to the firmest ground they could find. The excavation was called the *fossa*, “ditch”. The depth varied according to terrain.

The road was constructed by filling the ditch. The method varied according to geographic locality, materials available and terrain, but the plan, or ideal at which the architect aimed was always the same. The roadbed was layered.

Into the *fossa* was dumped large amounts of rubble, gravel and stone, whatever fill was available. Sometimes a layer of sand was put down, if it could be found. When it came to within a few feet of the surface it was covered with gravel and tamped down, a process called *pavire*, or *pavimentare*. The flat surface was then the *pavimentum*. It could be used as the road, or additional layers could be constructed. A *statumen* or “foundation” of flat stones set in cement might support the additional layers.

The final steps utilized concrete, which the Romans had exclusively rediscovered. They seem to have mixed the mortar and the stones in the *fossa*. First a several-inch layer of coarse concrete, the *rudus*, then a several-inch layer of fine concrete, the *nucleus*, went onto the pavement or *statumen*. Into or onto the *nucleus* went a course of polygonal or square paving stones called the *summa crusta*. The *crusta* was crowned for drainage.

It is unclear that any standard terminology was used; the words for the different elements perhaps varied from region to region. Today the concrete has worn from the spaces around the stones, giving the impression of a very bumpy road, but the original surface was no doubt much closer to being flat. These remarkable roads are resistant to rain, freezing and flooding. They needed little repair.

River crossings were achieved by bridges. Single slabs went over rills. A bridge could be of wood, stone, or both. Wooden bridges were constructed on pilings sunk into the river, or on stone piers. Larger or more permanent bridges required arches. Roman bridges were so well constructed that many are in use today.

Causeways were built over marshy ground. The road was first marked out with pilings. Between them were sunk large quantities of stone so as to raise the causeway 6 feet above the marsh. In the provinces, the Romans often did not bother with a stone causeway, but used log roads.

Outcroppings of stone, ravines, or hilly or mountainous terrain called for cuttings and tunnels. Roman roads generally went straight up and down hills, rather than in a serpentine pattern. Grades of 10%-12% are known in ordinary terrain, 15%-20% in mountainous country.

## **FINANCING**

Financing road building was a Roman government responsibility. Maintenance, however, was generally left to the province. The officials tasked with fund raising were the *curatores viarum*, in which you can see the English word, curator. They had a number of methods available to them. Private citizens with an interest in the road could contribute to its repair. High officials might distribute largesse to be used for roads. *Censors*, who were in charge of public morals and public works, were expected to fund repairs with their own money. Beyond those means, taxes were required.

The beauty and grandeur of the roads might tempt us to believe that any Roman citizen could use them for free, but this was not the case. Tolls abounded, especially at bridges. Often they were collected at the city gate. Freight was made heavier still by import and export taxes. These were only the charges for using the roads. Costs of services on the journey went up from there.

## **ROMAN ROADS IN BRITAIN**

The Roman roads in Britain were constructed between approximately AD 50 and AD 400, in order to facilitate trade and military traffic between the different regions of Roman Britain (Britannia). There were no proper roads in Britannia prior to the arrival of the Romans. Instead, the native Brythons used trackways which were often located along hilltop ridges, such as the Ridgeway in southern England. Some of these trackways were later adapted by the Romans, but most of the road network was wholly new.

In southern Great Britain, Roman roads fell into disrepair in the Early Middle Ages, during which time they gained their present names. In some places, the origins of the roads were forgotten and they were ascribed to mythical Anglo-Saxon giants and divinities: for instance, Wade's Causeway in North Yorkshire owes its name to Woden, the supreme god of Germanic and Norse mythology.

The roads continued to be used for centuries thereafter. Chaucer's pilgrims in the *Canterbury Tales* almost certainly used Watling Street to travel from Southwark to Canterbury. However, the roads were mostly destroyed in the 18th and 19th century when

toll roads were constructed on top of the Roman originals. Very few Roman roads have survived in anything like their original condition, and even then only for very short stretches - Wade's Causeway is widely regarded as the best-preserved in Britain. Many modern roads continue to use the old Roman alignments. Much of Watling Street, for example, is now under the A2 and A5.

The Roman engineers who constructed Britain's first roads built them to a standard pattern replicated across the empire. Military roads tended to follow long, straight alignments between major towns and garrisons, while civil routes tended to follow the contours of the land in order to link farms and estates to their markets. The road was carried on an embankment (the agger), sometimes as much as 5 feet (1.5 m) high and 50 feet (15 m) wide, built up from soil excavated from drainage ditches on either side of the road. The road was surfaced with gravel wherever possible, but small broken stones or larger blocks or slabs were used if gravel was in short supply.

Many English place names derive from a position on or near a Roman road, usually denoted by the element -street (also strat-, strait-, streat- and other variants). Thus, for example, Stretham means "homestead or village on a Roman road" and likewise Stretford means "ford on a Roman road".



A cobblestone Roman road in Pompeii.

The first pathways were the trails made by migrating animals. By about 10,000 BC these rough pathways were used by human hunter nomads following these herds.

Street paving has been found in the first human settlements around 4000 BC in India's Indus Valley city Harrapa.

The oldest engineered road discovered is the Sweet Track causeway in England, dating from around 3800 BC.

The ancient Egyptians constructed a stone paved road to help move materials for the building of the Great Pyramid in about 3000 BC.

The ancient Chinese constructed an extensive system of roads, some paved, from about 1100 BC onwards. By 20 AD the Chinese road network extended over 40,000 kilometres.

The Incas built fine highways, the Inca road system, for couriers through the Andes, and the Mayans built an extensive network of paved roads in Mexico before the European discovery of the New World.

In ancient times transport by river was far easier and faster than transport by road, especially considering the cost of road construction and the difference in carrying capacity between carts and river barges. A hybrid of road transport and ship transport is the horse-drawn boat in which the horse follows a cleared path along the river bank.

In 500 BC Darius I the Great started an extensive road system for Persia (Iran), including the famous Royal Road which was one of the finest highways of its time. The road was used even after the Roman times. Because of the road's superior quality, mail couriers could travel 2,699 km in seven days.

From about 300 BC the Roman Empire built straight strong stone Roman roads throughout Europe and North Africa in support of its military campaigns. By the 1st century the Roman Empire was connected by 85,000 kilometers of paved roads.

Road construction and maintenance in Britain was traditionally done on a local parish basis. This resulted in a poor and variable state of roads. To remedy this, the first of the "Turnpike Trusts" was organized in around 1706 to build good roads and collect tolls from passing vehicles. Eventually there were approximately 1,100 Trusts in Britain and some 38,000 km of engineered roads.

Engineered roads in the age of horse-drawn transport aimed for a maximum gradient of 1 in 30 on a macadamized surface, since this was the steepest a horse could exert to pull a load up hill, which it could manage easily on the flat. Notable road engineers from this period are Pierre Marie Jérôme Trésaguet (1716-1796) in France and John Loudon McAdam (1756-1836) in England.

During the industrial revolution the railway developed as a solution to the problem of rutting of the road surface by heavy carts. Instead of trying to build a strong surface across the whole road, the cart was constrained to run either on rails or grooves which could be made of much stronger, wear resistant material.

Today roads are almost exclusively built to enable travel by automobile and other wheeled vehicles. In most countries road transport is the most utilized way to move goods. Also in most developed countries roads are formally divided into lanes to ensure the safe and smooth movement of traffic.

## **Inca Road System**

Among the many roads and trails constructed in pre-columbian South America, the Inca road system of Peru was the most extensive. Traversing the Andes Mountains and reaching heights of over 5,000 m (16,500 feet) above sea level, the trails connected the regions of the Inca Empire from the northern provincial capital in Quito (Ecuador) past the modern city of Santiago (Chile) in the south. The Inca road system covered approximately 22,500 km (14,000 mi) and provided access to over three million km<sup>2</sup> of territory.

## **CHASKI**

Since the Incas did not make use of the wheel for transportation, and did not have horses until the arrival of the Spanish in Peru in the 16th century, the trails were used almost exclusively by people walking, sometimes accompanied by pack animals, usually the llama.

The trails were used by the Inca people as a means of relaying messages, carried via knotted-cord *quipu* (A quipu usually consists of colored spun and plied thread from llama or alpaca hair or cotton cords with numeric and other values encoded by knots in a base 10 positional system. Quipus may have just a few strands, but some have up to 2,000 strands), books, and by memory; and for transporting goods. Messages could be carried by *chasqui* runners covering as much as 240 km (150 mi) per day.

Each chasqui carried a trumpet made of a conch shell or animal's horn, a quipu in which information was stored, and a rucksack on his back to hold objects to be delivered.

Chasquis worked using a relay system which allowed them to convey messages over very long distances within a short period of time.

There were approximately 2,000 inns placed at even intervals along the trails. The inns provided food, shelter and military supplies to the tens of thousands who traveled the roads. There were corrals for llamas and stored provisions such as corn, lima beans, dried potatoes, and llama jerky. Along the roads, local villagers would plant fruit trees that were watered by irrigation ditches. This enabled chasqui runners and other travelers to be refreshed while on their journeys. Inca rope bridges provided access across valleys.

Many of the trails converge on the center of the empire, the Inca capital city of Cusco. Therefore, it was easy for the Spanish conquistadors to locate the city. Traversing the trails on horseback proved to be difficult and treacherous for the Spanish in their attempts to conquer the Inca Empire.

### **MAIN ROUTES**

The most important Inca road was the Camino Real, as it is known in Spanish, with a length of 5,200 km (3,230 mi). It began in Quito, Ecuador, passed through Cusco, and ended in what is now Tucumán, Argentina. The Camino Real traversed the mountain ranges of the Andes, with peak altitudes of more than 5,000 m. El Camino de la Costa, the coastal trail, with a length of 4,000 km (2,420 mi), ran parallel to the sea and was linked with the Camino Real by many smaller routes.



Inca trail to Machu Picchu.

By far the most popular of the Inca trails for trekking is the Capaq Nan trail, which leads from the village of Ollantaytambo to Machu Picchu, the so-called “Lost City of the Incas”. There are many well-preserved ruins along the way, and hundreds of thousands of tourists from around the world make the three- or four-day trek each year, accompanied by guides.

### **THE ROMAN EMPIRE AND SILK**

Soon after the Roman conquest of Egypt in 30 BC, regular communications and trade between India, Southeast Asia, Sri Lanka, China, the Middle East, Africa and Europe blossomed on an unprecedented scale. Land and maritime routes were closely linked, and novel products, technologies and ideas began to spread across the continents of Europe, Asia and Africa. Intercontinental trade and communication became regular, organized, and protected. Intense trade with the Roman Empire followed soon, confirmed by the Roman craze for Chinese silk even though the Romans thought silk was obtained from trees:

*“The Seres (Chinese), are famous for the woolen substance obtained from their forests; after a soaking in water they comb off the white down of the leaves... So manifold is the labour employed, and so distant is the region of the globe drawn upon, to enable the Roman maiden to flaunt transparent clothing in public” (Pliny the Elder (23–79, The Natural History).*

The Senate issued, in vain, several edicts to prohibit the wearing of silk, on economic and moral grounds: the importation of Chinese silk caused a huge outflow of gold, and silk clothes were considered to be decadent and immoral.

The Hou Hanshu records that the first Roman envoy arrived in China by this maritime route in 166, initiating a series of Roman embassies to China.

## **CENTRAL ASIAN COMMERCIAL & CULTURAL EXCHANGES**

The heyday of the Silk Road corresponds to that of the Byzantine Empire in its west end, Sassanid Empire Period to Il Khanate Period in the Nile-Oxus section and Three Kingdoms to Yuan Dynasty in the Sinitic zone in its east end. Trade between East and West also developed on the sea, between Alexandria in Egypt and Guangzhou in China, fostering the expansion of Roman trading posts in India. Historians also talk of a “Porcelain Route” or “Silk Route” across the Indian Ocean. The Silk Road represents an early phenomenon of political and cultural integration due to inter-regional trade.

Under its strong integrating dynamics on the one hand and the impacts of change it transmitted on the other, tribal societies previously living in isolation along the Silk Road or pastoralists who were of barbarian cultural development were drawn to the riches and opportunities of the civilizations connected by the Silk Road, taking on the trades of marauders or mercenaries. Many barbarian tribes became skilled warriors able to conquer rich cities and fertile lands, and forge strong military empires.

The Silk Road gave rise to the clusters of military states of nomadic origins in North China, invited the Nestorian, Manichaean, Buddhist, and later Islamic religions into Central Asia and China, created the influential Khazar Federation and at the end of its glory, brought about the largest continental empire ever: the Mongol Empire, with its political centers strung along the Silk Road realizing the political unification of zones previously loosely and intermittently connected by material and cultural goods.

## **MONGOL ERA**

The Mongol expansion throughout the Asian continent from around 1215 to 1360 helped bring political stability and re-establish the Silk Road. In the late 13th century, a Venetian explorer named Marco Polo became one of the first Europeans to travel the Silk Road to China. Westerners became more aware of the Far East when Polo documented his travels in *Il Milione*. He was followed by numerous Christian missionaries to the East. Luxury goods were traded from one middleman to another, from China to the West, resulting in high prices for the trade goods.

Many technological innovations from the East seem to have filtered into Europe around that time. The period of the High Middle Ages in Europe saw major technological advances, including the adoption through the Silk Road of printing, gunpowder, the astrolabe, and the compass.

Chinese maps and Islamic mapmaking seem to have influenced the emergence of the first practical world maps. Large Chinese junks were also observed by these travelers and may have provided impetus to develop larger ships in Europe.



However, with the disintegration of the Mongol Empire also came discontinuation of the Silk Road's political, cultural and economic unity. Turkmeni marching lords seized the western end of the Silk Road — the decaying Byzantine Empire. After the Mongol Empire, the great political powers along the Silk Road became economically and culturally separated. Accompanying the crystallization of regional states was the decline of nomad power, partly due to the devastation of the Black Death and partly due to the encroachment of sedentary civilizations equipped with gunpowder.

The Silk Road stopped serving as a shipping route for silk around 1400.

### **THE GREAT EXPLORERS: EUROPE REACHING FOR ASIA**

The disappearance of the Silk Road following the end of the Mongols was one of the main factors that stimulated the Europeans to reach the prosperous Chinese empire through another route, especially by the sea. Tremendous profits were to be obtained for anyone who could achieve a direct trade connection with Asia.

When he went West in 1492, Christopher Columbus reportedly wished to create yet another Silk Route to China. It was allegedly one of the great disappointments of western nations to have found a continent “in-between” before recognizing the potential of a “New World.” In 1594 Willem Barents left Amsterdam with two ships to search for the Northeast passage north of Siberia, on to eastern Asia. He reached the west coast of Novaya Zemlya, and followed it northward, being finally forced to turn back when confronted with its northern extremity.

The wish to trade directly with China was also the main drive behind the expansion of the Portuguese beyond Africa after 1480, followed by the powers of the Netherlands and Great Britain from the 17th century. As late as the 18th century, China was usually still considered the most prosperous and sophisticated of any civilization on earth, however its per capita income was low relative to western Europe at that time. Leibniz, echoing the prevailing perception in Europe until the Industrial Revolution, wrote in the 17th century: *“Everything exquisite and admirable comes from the East Indies... Learned people have remarked that in the whole world there is no commerce comparable to that of China”*.

In the 18th century, Adam Smith, declared that China had been one of the most prosperous nations in the world, but that it had remained stagnant for a long time and its wages always were low and the lower classes were particularly poor:

*“China has been long one of the richest, that is, one of the most fertile, best cultivated, most industrious, and most populous countries in the world. It seems, however, to have been long stationary. Marco Polo, who visited it more than five hundred years ago, describes its cultivation, industry, and populousness, almost in the same terms in which they are described by travellers in the present times. It had perhaps, even long before his time, acquired that full complement of riches which the nature of its laws and institutions permits it to acquire.”* (Adam Smith, *The Wealth of Nations*, 1776).

In effect, the spirit of the Silk Road and the will to foster exchange between the East and West, and the lure of the huge profits attached to it, has affected much of the history of the world during these last three millennia.

### **ROYAL ROAD**



The map of Achaemenid Empire and the Royal Road.

The Persian Royal Road was an ancient highway built by the Persian king Darius I of Achaemenid Empire in the 5th Century BC. Darius built the road to facilitate rapid communication throughout his very large empire from Susa to Sardis. His couriers could travel 1,677 miles (2,699 km) in seven days. The Greek historian Herodotus wrote, *“There is nothing in the world that travels faster than these Persian couriers.”* Herodotus’ praise for these messengers — *“Neither snow nor rain nor heat nor darkness of night prevents them from accomplishing the task proposed to them with the very utmost speed”* — is the inspiration for the unofficial motto of postal carriers.

### **COURSE OF THE ROYAL ROAD**

The course of the road has been reconstructed from the writings of Herodotus, archeological research, and other historical records. It began in the west in Sardis (about 60 miles east of Izmir in present-day Turkey), traveled east through what is now the middle northern section of Turkey to the old Assyrian capital Nineveh (present-day Mosul, Iraq), then traveled south to Babylon (present-day Baghdad, Iraq). From near Babylon, it is believed to have split into two routes, one traveling northwest then west through Ecbatana and on along the Silk Road, the other continuing east through the future Persian capital Susa (in present-day Iran) and then southeast to Persepolis.

### **HISTORY OF THE ROYAL ROAD**

Because the road did not follow the shortest nor the easiest route between the important cities of the Persian Empire, archeologists believe the western-most sections of the road may have originally been built by the Assyrian kings, as the road plunges through the heart of their old empire. More eastern segments of the road (in present-day northern Iran) are coincident with the major trade route known as the Silk Road.

However, Darius I made the Royal Road as it is recognized today by improving the road bed and connecting the parts together in a unified whole, primarily as a quick mode of communication using the kingdom's messengers.

The construction of the road as improved by Darius was of such quality that the road continued to be used into Roman times. A bridge at Diyarbakir, Turkey still stands from this period of the road’s use.

### **ANCIENT TRANSPORT**

The ancient peoples of the Sahara had already imported domesticated animals from Asia between 7500 and 4000 BC. Foreign artifacts dating to the 5th millennium BC in the culture of Egypt indicate contact with distant Syria. By the beginning of the 4th millennium BC, ancient Egyptians in Maadi were importing pottery as well as construction ideas from Canaan.

Routes along the Persian Royal Road (constructed 5th century BC) may have been in use as early as 3500 BC. Between 1979 and 1985, charcoal samples found in the tombs of Nekhen, which were dated to the Naqada I and II periods, were identified as cedar from Lebanon

*Ancient trackway* can refer to any track or trail whose origin is lost in antiquity. Such paths existed from the earliest times and in every part of the globe. The term is commonly used on the British Isles to describe the ancient trackways that already existed when the Romans arrived in Britain. Such trackways were often built on by the Romans and form the foundations of some of the current system of roads.

## **THE BEGINNINGS**

The *Concise Oxford Dictionary* gives the definition of “trackway” as “a path formed by the repeated treading of people or animals”. The very earliest creatures to arrive in Britain after the Ice Age, crossing land which would later be the English Channel, were grazing animals following the spreading vegetation. Their predators, including humans – the Mesolithic (Middle Stone Age) hunter-gatherers - followed. The earlier Mesolithic people were nomadic but in the later part of the Mesolithic permanent settlements started to appear.

## **THE TRACKWAYS**

These settlements were connected with each other by the ancient trackways. These green ways often followed natural contours in the landscape, and had evolved over time as animals were driven from place to place, and pedestrians walked to and from neighbouring settlements. Much of the land was forested; the lower valleys provided fertile land and were ideal places for fishing, agriculture and the rearing of cattle.

The trackways will have provided links in many ways: farmsteads to fields; to other farmsteads; to the neighbouring long barrow tomb; with long-distance trackways joining the separate localities to the camp meeting places and cross-country flint roads. Others were more likely to have been processional ways, like one heading for the gigantic temple at Avebury. Others, the long-distance ways mentioned above, are now known as the Icknield Way, the Ridgeway National Trail, the Harrow Way and the Pilgrims’ Way.

Some of these trackways followed the tops of higher land, while others progressed along the lower slopes. The lowland areas were thickly forested and poorly drained and for long distance travel there was an advantage in following the top of a line of hills. Skills to develop tracks across bog lands, such as in Somerset, were learnt by early people. Known as *corduroy roads*, they were formed when huge quantities of alder poles and brushwood were used to link the fen islands across the marshes. The Sweet track in the Glastonbury fens, Somerset is the oldest purpose built road in the world and has been dated to the 3800s BC.

## **WALLINGFORD**

The original settlement at Wallingford in Oxfordshire dates back to the dawn of British history, when its founders showed a remarkable amount of discrimination in choosing its site. Nestling in a fertile valley on the banks of the River Thames, it was an ideal place for fishing, agriculture and the rearing of cattle. The ancient trackways, in particular the Icknield Way, gave it lines of communication converging on its ford. The remains of the ramparts, which still surround the town, are the successors of the rudimentary

fortifications of the old British settlement, were adapted in turn by Roman, Saxon and Norman conquerors.

## **2.3. TYPES OF ROADS**

### **Types of Road**

Various types of roads are in use around the world. They range from private access to the stereotypical two-lane highway, to high capacity dual carriageway routes, such as freeways and motorways. The names associated with a particular type of road vary around the world. As a result, the name given to a road in one country could apply to a different type of road in another country.

#### **DEFINITION**

A *road* is an identifiable route or path between two or more places. Roads are typically smoothed, paved, or otherwise prepared to allow easy travel; though they need not be, and historically many roads were simply recognizable routes without any formal construction or maintenance. In urban areas roads may pass along and be named as streets, serving a dual function as urban space and route.

A *street* is a public parcel of land adjoining buildings in an urban context, on which people may freely assemble, interact, and move about. A street can be as simple as a level patch of dirt, but is more often paved with a hard, durable surface such as cobblestone or brick. Portions may also be smoothed with asphalt, embedded with rails, or otherwise prepared to accommodate non-pedestrian traffic. Examples of streets include pedestrian streets, alleys, and center-city streets too crowded for road vehicles to pass, none of which are usually considered roads.

#### **MEDIUM CAPACITY**

Most countries have major roads of medium capacity designed for automobile travel that connect cities, places, other routes, or other significant points of interest. These routes are usually known by the name given to an official class of road, specific to a country. The term *highway* is used generically in some parts of the world, including the United States of America. Designs of such routes vary widely. They can include some characteristics of freeways and motorways such as multiple lanes of traffic, a median between lanes of opposing traffic, and access control (ramps and grade separation). They can also be as simple as a two-lane shoulderless road.

*2+1 roads* are an innovation used in Denmark and Sweden since the 1990s. They are being constructed in other countries, such as Ireland. They involve a road with a single divided carriageway, with two lanes in one direction, and one lane in the other. The format switches every few kilometres to have the two lane section on the other side of the road.

#### **HIGH CAPACITY RESTRICTED ACCESS ROADS**

Most high capacity roads are built to a higher standard than general purpose roads. In order to provide for higher traffic volumes, such routes may be operated with limited access points, and to particular types of motorized vehicles. Usually these high capacity routes are dual carriageway. Concepts that adhere to these qualities include; freeways, motorways, autobahns and autostrada.

## UNITED KINGDOM



The M25, a typical motorway in the United Kingdom

In the UK the term *motorway* is used almost unanimously to refer to a specific type of road in the UK and the Republic of Ireland. Although the terms *expressway*, or *parkway* are sometimes used, they amount to little more than street names, with *motorway* the only term officially recognized. The UK motorways are engineered so that they are among the safest such roads in the world, with almost all motorways having a full-width hard shoulder (breakdown lane), full grade-separated interchanges with long on/off ramps and a barriered central reservation which is a compulsory requirement for a motorway (the term “median strip” is unknown in British English). Without a barriered central reservation, or if a multilane road fails to meet any of the other requirements to become a motorway, it is simply referred to as a *dual carriageway*.

All UK motorways have an “M” prefix (e.g. M1) or, where an “A” road has been upgraded to motorway status, an “M” suffix in brackets (e.g. A1(M)).

## UNITED STATES FREEWAYS



Interstate 80 (Eastshore Freeway) in Berkeley, a typical American freeway

In the United States of America, a *freeway* is a divided highway with full control of access. This means two things. First, adjoining property owners do not have a legal right of access, meaning that they cannot connect their lands to the highway by constructing driveways. When an existing road is converted into a freeway, all existing driveways must be removed and access to adjacent private lands must be blocked with fences or walls. Second, traffic on the highway is “free-flowing”, although many non-engineers misapprehend the “free” in “freeway” to mean that such a highway must be free of charge to use. All cross-traffic (and left-turning traffic) has been relegated to overpasses or underpasses, so that there are no traffic conflicts on the main line of the highway which must be regulated by a traffic light, stop signs, or other traffic control devices. Achieving such free flow requires the construction of many bridges, tunnels, and ramp systems. The

advantage of grade-separated interchanges is that freeway drivers can almost always maintain their speed at junctions since they do not need to yield to crossing traffic.

### **Expressways**

In contrast, an expressway is defined as a divided highway with partial control of access. Expressways may have driveways connecting to adjacent properties, although the trend over time has been to minimize driveways when possible. Expressways also may have at-grade intersections, though these tend to be spaced farther apart than on most arterial roads. In urban areas, expressway intersections are usually controlled by traffic lights, but in many rural areas, cross-traffic is governed only by stop signs, and there are no restrictions on through traffic. Vehicles crossing an expressway at rural intersections must cross four lanes with vehicles coming at them at prevailing speeds. Thus, expressways are more dangerous than freeways and cannot carry traffic as efficiently as a freeway.

## **HIGHWAY**



Highway in Pennsylvania, USA



Highway SP-160 in Brasil

Highway is a term commonly used in the United States to designate major roads intended for travel by the public between important destinations, such as cities.

Highway designs vary widely. They can include some characteristics of freeways and motorways such as multiple lanes of traffic, a median between lanes of opposing traffic, and access control (ramps and grade separation). Highways can also be as simple as a two-lane, shoulderless road. The United States has the largest network of national highways, including Interstate highways and United States Numbered Highways. This network is present in every state and connects all major cities. China has the fastest expanding and second largest highway system in the world.

Some highways, like the Pan-American Highway or the European routes, connect multiple countries. Australia's Highway 1 connects all state capitals and runs almost the entire way around the country.

The longest single national highway in the world is the Trans-Canada Highway, which runs from Victoria, British Columbia, on the Pacific Coast, through ten provinces to the Atlantic Coast, at St. John's, Newfoundland.

Highways are not always continuous stretches of pavement. For example, some highways are interrupted by bodies of water, and ferry routes may serve as sections of the highway.

## NOMENCLATURE

The terms used for various types of highways (such as autobahn, autoroute, expressway, freeway, and motorway) vary between countries or even regions within a country. In some places a *highway* is a specific type of major road that is distinct from *freeway* or *expressway*; in other places the terms may overlap. In law, *highway* may mean any public road or canal. However, in some countries, the term *highway* is not generally used at all.

## SOCIAL AND ENVIRONMENTAL EFFECTS

By reducing travel times relative to arterial streets, highways have a positive effect upon balance of leisure or productive time through reduced commute and other travel time. However, highways have criticisms, partially due to being an extended linear source of pollution:

- **Community cohesion:** Where highways are created through existing communities, there can be reduced community cohesion and more difficult local access.
- **Roadway noise:** Highways generate more roadway noise than arterial streets due to the higher operating speeds. Therefore, considerable noise health effects are expected from highway systems. Noise mitigation strategies exist to reduce sound levels at nearby sensitive receptors. The idea that highway design could be influenced by acoustical engineering considerations first arose about 1973.
- **Air quality issues:** Highways may contribute fewer emissions than arterials carrying the same vehicle volumes. This is because high, constant-speed operation creates an emission reduction compared to vehicular flows with stops and starts. However, concentrations of air pollutants near highways may be higher due to increased traffic volumes. Therefore, the risk of exposure to elevated levels of air pollutants from a highway may be considerable, and further magnified when highways have traffic congestion.
- **New highways can cause habitat fragmentation and allow human intrusion into previously untouched areas.**

## MOTORWAY



Motorway symbol in the UK, France and Ireland.

A *motorway* (in the United Kingdom, New Zealand, Pakistan, some other Commonwealth nations and Ireland) is both a type of road and a classification or designation. Motorways are highways designed to carry a large volume of traffic where a normal road would not suffice or would be unsafe, usually between cities. In the UK they are predominantly dual-carriageway roads, usually with three lanes in each direction,

although four-lane and two-lane carriageways are also common, and all have grade-separated access.

Equivalent terms in other countries include autoroute, autobahn, freeway, autostrada, autopista, motorvej, autópálya, motorväg and autoput. In North America, the English terms freeway and expressway (including autoroutes) are used as a type of road, not necessarily as a classification type. Many highways are maintained throughout the United States as part of the Interstate Highway System. These highways are generally similar to motorways in purpose and quality.

## **REGULATIONS AND FEATURES**



A Sunday in April 2004 at 5 p.m. on Britain's busy M25

In Ireland and the UK, motorways are denoted by blue signage and an M-prefixed or suffixed road number.

The construction and surfacing of motorways is generally of a higher standard than conventional roads, and maintenance is carried out more frequently; in particular, motorways drain water very quickly to reduce hydroplaning. The road surface is generally tarmac (“black top”) or concrete (“white top”). Other features are crash barriers, cat’s eyes and, increasingly, textured road markings (a similar concept to rumble-strips).

### **COMMON CRITERIA**

For a road to be classified as motorway a number of conditions must be fulfilled. The following conditions generally apply:

- Accessed at junctions by slip roads off the sides of the main carriageway;
- Joined by link-roads at an interchange, the object of which is to allow traffic to change route without stopping or slowing significantly;
- Traffic lights are not permitted (except at toll booths and certain interchanges);
- Have signposted entry and exit points at the start and end;
- Certain types of transport are banned, typically pedestrians, bicycles, learner drivers, horses, agricultural vehicles, underpowered vehicles (e.g. small scooters, invalid carriages).
- Emergency telephones (which connect directly to the police) must be provided at a regular distance (in the UK emergency telephones are situated at intervals of 1 mile)

### **SPEED LIMITS**

Speed limits are generally higher than on ordinary roads. Some types of vehicle may be subject to a lower limit, while often sections of motorway are subject to lower speed limits due to local driving conditions.



In the UK the majority of motorways and dual carriageways have a maximum speed limit of 70 mph (113 km/h) for cars. In 2004 the Conservative Party proposed increasing the motorway speed limit to 80 mph (129 km/h) on some stretches. Some road safety groups feel this would be a good idea, as it more closely represents the normal (and, they claim, safe) driving practice of the majority of motorway users.

Many other roads are of near-motorway quality, but are not classified as such (generally for breaking one or more of the above rules). These are referred to as dual carriageways, which in Britain usually have the same 70 mph (113 km/h) limit.

## LANE USAGE

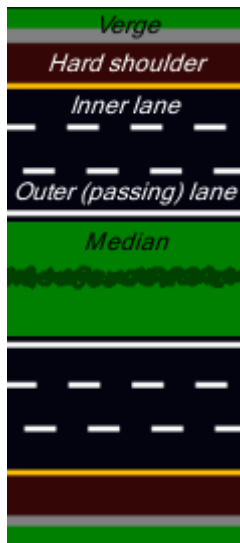


Diagram showing lanes and road layout

White dashed lines denote the lane separation, while an unbroken white line is painted alongside the median (usually known as the “central reservation”). A white line on the edge of the slow lane marks the edge of the hard shoulder. The hard shoulder is not used for traffic and is reserved for breakdowns or emergency maneuvers. Pedestrians should *only* use the hard shoulder to walk to emergency telephones and not for any other reason. Vehicles on the hard shoulder should activate their hazard warning lights.

Lanes closest to the edge of the road are intended for general driving – these are hence the “inside” lanes, while the lanes closest to the median are intended for overtaking (passing) slower-moving vehicles – hence they are termed “outside” lanes. Generally lanes closer to the centre of the road (outer lanes) are used for overtaking, while lanes near the edge of the road (inner lanes) are used for slower traffic. Under the Highway Code in the UK, it is not permitted to overtake on the left, except in emergencies, when signs indicate drivers may do so, or when traffic is moving slowly. Similar rules apply in Germany and some other countries.

Traffic should always use the left-hand-most lane as much as possible. Generally this means a vehicle should use the left-hand lane next to the hard shoulder, and use the other two lanes only for overtaking maneuvers, moving back into the left lane once they have passed the slower vehicle(s). In heavy traffic, it is acceptable to cruise in the middle lane to pass slower vehicles to avoid constant lane changes.

A significant problem on motorways is the “middle lane hog”, a driver who drives in the middle lane when there is no reason to do so. This can be very frustrating for other drivers. Faster vehicles approaching in the left hand lane have to maneuver across four

lanes of the motorway rather than two to overtake such a vehicle, since undertaking is deemed dangerous. Drivers of heavy goods vehicles can be especially frustrated by a middle lane hog, as their vehicles are not permitted to use the right-hand-most lane on a three (or more) lane motorway under normal circumstances. Some vehicles try to convince a “right lane hog” to move to the slower lane by keeping a very close distance, which is also considered dangerous.

In the UK lanes in a given direction are numbered from left to right as lane 1, lane 2, lane 3, etc. Lane 1 is the lane next to the hard shoulder.

## **JUNCTIONS**

The most basic motorway junction is a two-lane flyover with four slip-roads, two on each side of the motorway, to exit or enter. A simple crossroads or roundabout is present on either end of the flyover. A rather large version of a roundabout, using two curved flyovers is sometimes used to present a single large junction for users of the slip-roads or crossing road. The slip roads leading off the motorway are known as “exit slip roads”, those leading onto the motorway as “entry slip roads”. The precise slip road at any junction may be identified by reference to the direction of the carriageway, for example “northbound entry slip”.

The signal-controlled roundabout is often used in these situations and has become very common in Ireland. A far greater degree of complexity is present in Britain with varying types of Spaghetti Junction-style interchanges.

## **LOCATION AND CONSTRUCTION**

Major intercity or national routes are often built or upgraded to motorway standard. Motorways are also commonly used for ring roads around cities or bypasses of built-up areas.

In Britain there are plans to improve many motorways as well as to upgrade some roads to motorway status. In Ireland, the National Roads Authority has been connecting main cities with motorways as part of a six-year National Development Plan. The European Union has part-funded many motorway projects in the past, as part of a Trans-European Transport Networks, and there are plans to invest billions of euros in such projects in the next ten years.

One of the most recently constructed motorways in the UK is the M6 Toll, bypassing Birmingham and Wolverhampton, which opened in 2004 and is the only completely toll motorway in England. There are tolled sections of motorway on the M4 and M48, where they cross the River Severn at the Severn crossings. Although the crossing of the River Thames east of London is tolled, the bridge and tunnels themselves are officially designated to permit usage by non-motorway traffic.

## **FREEWAY**



This stylized drawing of an overpass is used to represent a freeway in many countries.

A freeway (also motorway or expressway) is a type of highway that is designed for safer high-speed operation of motor vehicles through the elimination of at-grade intersections. This is accomplished by imposing full control of access from adjacent properties and eliminating all cross traffic with grade separations and interchanges, and no railroad crossings. Such highways are usually divided with at least two lanes in each direction. Because traffic never crosses at-grade, there are generally no traffic lights or stop signs. The word *freeway* is also used to describe a highway without tolls.

Note: Expressway has other meanings, and motorway typically applies only to those roads designated as motorways by the national highway agency. Thus this article will primarily use the term freeway for clarity and conciseness. The terms “controlled access” and “limited access” are also used, but both terms can also apply to arterial roads with partial control of access.

Despite the name, a freeway can be a toll road.

## GENERAL CHARACTERISTICS



High-capacity freeway interchange in Los Angeles, California.

Freeways, by definition, have no cross traffic in the form of other roads and railroads. Elimination of cross traffic is typically achieved with grade separation using underpasses and overpasses. In addition to sidewalks attached to roads that cross a freeway, specialized pedestrian bridges or tunnels may also be provided. These structures enable pedestrians and cyclists to cross the freeway without a long detour to the nearest motor vehicle crossing. Movable bridges are occasionally present on freeways, requiring drivers to yield to river traffic.

Access is typically provided only at interchanges, though lower-standard right-in/right-out access can be used for direct connections to side roads or driveways to adjacent property. In ideal cases, sophisticated interchanges allow for smooth, uninterrupted transitions between intersecting freeways. However, sometimes it is necessary to exit onto a surface road to transfer from one freeway to another. Exits are sometimes numbered to help drivers identify their exit.

Two-lane freeways, often undivided, are sometimes built when traffic volumes are low or right-of-way is limited; they may be designed for easy conversion to one side of a four-lane freeway. Otherwise, freeways typically have at least two lanes in each direction; some busy ones can have as many as 16 lanes or up to 18 for short distances. These wide freeways may use separate collector and express lanes to separate through traffic from local traffic, or special high-occupancy vehicle lanes, either as a special restriction on the innermost lane or a separate roadway, to encourage carpooling. These HOV lanes, or

roadways open to all traffic, can be reversible lanes, providing more capacity in the direction of heavy traffic, and reversing direction before traffic switches. Sometimes a collector/distributor road, a shorter version of a local lane, shifts weaving between closely-spaced interchanges to a separate roadway or altogether eliminates it.

Freeways can have frontage roads, normal surface roads parallel to and on either side of the freeway, to provide access to adjacent properties. Frontage roads typically have one-way traffic flow in urban areas and two-way traffic flow in rural areas.

Except on some two-lane freeways (and very rarely on wider freeways), a median separates the opposite directions of traffic. This strip may be as simple as a grassy area, or may include a crash barrier such as a Jersey barrier to prevent head-on collisions. On some freeways, the two carriageways are built on different alignments; this may be done to make use of available corridors in a mountainous area or to provide narrower corridors through dense urban areas.

Speed limits are generally higher than on similar non-freeways, and are sometimes nonexistent. Because the high speeds reduce decision time, freeways are usually equipped with a larger number of guide signs than other roads, and the signs themselves are physically larger. In major cities, guide signs are often mounted on overpasses or overhead gantries so that drivers can see where each lane goes.

In most parts of the world, there are public rest areas or service areas on freeways. Many countries also provide emergency phones alongside freeways at regular intervals.

To reduce the probability that high-speed freeway traffic will have to slow down for slower same-direction traffic, access to freeways is usually limited to classes of motor vehicles that are powerful enough to maintain a certain minimum speed. Some countries partially restrict the use of motorcycles or ban them completely from freeways.

## **EFFECTS AND CONTROVERSY**



Rush hour on I-45, downtown Houston.

Freeways have been constructed both between urban centres and within them, making common the style of sprawling suburban development found near most modern cities. As well as reducing travel times, the ease of driving on them reduces accident rates, though the speeds involved also tend to increase the severity and death rate of the collisions that do still happen.

Freeways have been heavily criticized by environmentalists and preservationists for the noise, pollution, and economic shifts they bring. Additionally, they have also been criticized by the driving public for the inefficiency with which they handle peak hour traffic.

Often, rural freeways open up vast areas to economic development, generally raising property values. But mature freeways in urban areas are quite often a source of lowered

property values, contributing to the deleterious effects of urban blight. One major problem is that even with overpasses and underpasses, freeways tend to divide neighborhoods — especially impoverished ones where residents are less likely to own a car that could easily take them around the freeway. For these reasons, almost no new urban freeways have been built in the U.S. since 1970.

Some have even been demolished and reclaimed as boulevards, notably in Portland (Harbor Drive), San Francisco (Embarcadero Freeway) and Milwaukee (Park East Freeway). Growing anti-urban freeway sentiment has resulted in some significant policy changes; the most noteworthy was an FHWA case study involving the West Side Highway in Manhattan, a quintessential urban freeway in need of expansion and reconstruction. The outcome of the study basically concluded that the current elevated highway should be replaced with a new, at-grade boulevard with integrated pedestrian facilities. This case study may be a precedent for areas where a typical, elevated urban freeway is not desirable and/or may not be effective at handling impacted traffic. In Boston, Massachusetts, the elevated Central Artery, originally built in the 1950s, was demolished in 2005 when new tunnels were built for an expanded Central Artery directly beneath the pre-existing elevated highway. Completion of the project, referred to as the Big Dig allowed Boston to reunite its business district with the waterfront, severed by the original elevated Central Artery, while maintaining the expressway through downtown, now located underground.

Freeway opponents argue that freeway expansion is self-defeating, in that expansion will just generate more traffic. That is, even if traffic congestion is initially shifted from local streets to a new or widened freeway, people will begin to run errands and commutes to more remote locations which took too long to reach in the past. Over time, the freeway and its environs will become congested again as both the average number and distance of trips increase.

Freeway advocates argue that properly designed and maintained freeways are aesthetically pleasing, convenient, and safe, at least in comparison to the uncontrolled roads they replace or supplement, and that they expand recreation, employment and education opportunities for individuals and open new markets to small businesses. And for many, uncongested freeways are fun to drive.

At present, freeway expansion has largely stalled in the United States, due to a multitude of factors that converged in the 1970s: higher due process requirements prior to taking of private property, increasing land values, increasing costs for construction materials, local opposition to new freeways in urban cores, the passage of the National Environmental Policy Act which imposed the requirement that each new project must have an environmental impact statement or report.

## **HISTORY**

The concept of limited-access automobile highways dates back to the New York City area Parkway system, whose construction began in 1907–1908; but parkways are traditionally distinguished from freeways by lower design speeds and a ban on commercial traffic. Designers elsewhere also researched similar ideas, especially in Germany, where the Autobahn would become the first national freeway system.

However, in 1925, Italy was technically the first country to build a freeway, which linked Milan to Lake Como. It is known in Italy as the Autostrada dei Laghi.

Meanwhile, in England, the related concept of the motorway was first proposed by Sidney Webb in a 1910 book “The King's Highway” but was not formally embraced by the government until the passage of the *Special Roads Act 1949*. In 1926, the English intellectual Hillarie Belloc recognized the necessity of grade-separated roads for “rapid and heavy traffic”, but thought they would be the exception rather than the rule: “The creation of a great network of local highways suitable for rapid and heavy traffic is impossible. Even if the wealth of the community increases, the thing would be impossible, because it would mean the destruction of such a proportion of buildings as would dislocate all social life.”

The word “freeway” first surfaced in the mid-1930s in proposals for the improvement of the New York City parkway network.

The first long-distance rural freeway in the United States is generally considered to be the Pennsylvania Turnpike, which opened on October 1, 1940. The Turnpike was so advanced for its time that tourists even had picnics in the median (that is, after it was already open to traffic) and local entrepreneurs did a brisk business in souvenirs. It was designed so that straightaways could handle maximum speeds of 102 miles per hour, and curves could be taken as fast as 90.

Shortly thereafter, on December 30, 1940, California opened its first freeway, the Arroyo Seco Parkway (now called the Pasadena Freeway) which connected Pasadena with Los Angeles. And in 1942, Detroit, Michigan opened the world's first urban depressed freeway, the Davison Freeway. Meanwhile, traffic in Los Angeles continued to deteriorate and local officials began planning the huge freeway network for which the city is now famous.

## **RECENT DEVELOPMENTS**

Outside the U.S., many countries continue to rapidly expand their freeway networks. Examples include: Australia, Canada, Chile, China, Croatia, France, India, Israel, Mexico, Malaysia, Pakistan, the Philippines, Spain and Taiwan. Australia and France in particular have been innovative in using the newest tunneling technologies to bring freeways into high-density downtowns (Sydney and Melbourne) and historic rural areas (Versailles). China already has the world's second largest freeway network in terms of total kilometers and will probably overtake the U.S. well before 2025.

In Australia, the city of Adelaide pioneered the concept of a dedicated reversible freeway. The M2 expressway runs toward the city in the morning and out of the city in the evening. Its ramps are designed so that they can double as on- or off-ramps, depending upon the time of day. Gates and electronic signage prevent motorists from driving in the wrong direction.

Meanwhile, major progress has been made in making existing U.S. freeways and expressways more efficient. Experiments include the addition of high-occupancy vehicle lanes (HOV lanes) to discourage driving solo, and building new roads with train tracks down the median (or overhead). California's Caltrans has been very innovative in squeezing HOVs into limited right-of-way (by elevating them), and in building special HOV-only ramps so that HOVs can switch freeways or exit the freeway without having to merge across regular traffic. Many states have added truck-only ramps or lanes on heavily congested routes, so that cars need not weave around slow-moving big rigs.

Intelligent transportation systems (ITS) are also increasingly used, with cameras to monitor and direct traffic, so that police, fire, ambulance, tow, or other assistance vehicles

can be dispatched as soon as there is a problem, and to warn drivers via variable message signs, radio, television, and the web to avoid problem areas. Research has been underway for many years on how to partly automate cars by making smart roads with such things as buried magnets to guide sensor-equipped vehicles, with on-board GPS to determine location, direction, and destination. While these systems may eventually be used on surface streets as well, they are most practical in a freeway setting.

## AUTOBAHN



The German autobahn sign

*Autobahn* is the German word for a major high-speed road restricted to motor vehicles and having full control of access, similar to a motorway or freeway in English-speaking countries.

In most countries, it usually refers to the German Autobahn specifically. German autobahns have no general speed limit, but the “recommended speed” is 130 km/h (80 mph). Austrian and Swiss autobahns have general speed limits of 130 km/h and 120 km/h (75 mph), respectively. In German, the word is pronounced as described above, and its plural is Autobahnen; in English, however, the segment “auto” is typically pronounced as in other English words such as “automobile”. The official name of the Autobahn in Germany is Bundesautobahn (BAB) (federal motorway).

## CONSTRUCTION

Similar to such freeways in other countries, autobahns have multiple lanes of traffic in each direction, separated by a central barrier with grade-separated junctions and access restricted to certain types of motor vehicles only. The first German Autobahn was completed in 1932 between Cologne and Bonn (it was the world’s very first motorway!). Each carriageway was flanked by bankettes about 60 cm (2 ft) in width, constructed of varying materials; right-hand bankettes on many autobahns were later retrofitted to 120 cm (4 ft) in width when it was realized cars needed the additional space to pull off the autobahn safely. In the postwar years, a thicker asphaltic concrete cross-section with full paved hard shoulders came into general use. The top design speed was approximately 160 km/h (100 mph) in flat country but lower design speeds could be used in hilly or mountainous terrain. A flat-country autobahn constructed to published design standards in use during the Nazi period could support hands-off speeds on curves of about 150 km/h (95 mph).



The number signet for the “A 8” as it appears on all traffic signs

The current autobahn numbering system in use in Germany was introduced in 1974. All autobahns are named by using the capital letter “A” followed by a blank and a number (for example “A 8”). The “main autobahns” going all across Germany have a single digit number usually even-numbered for east-west routes and odd-numbered for north-south routes. Some roads may not be as easily distinguished as strictly either as it would be, for example, in the United States whose major roads follow routes that are clearly horizontal or vertical when viewed on a conventional map. Shorter autobahns that are of regional importance (e.g. connecting two major cities or regions within Germany) have a double digit number (e.g. A 24, connecting Berlin and Hamburg).

There are also very short autobahns of just local importance (e.g. beltways or the A 555 from Cologne to Bonn) that usually have three numbers the first one of which is similar to the system above, depending on the region.

## HISTORY



A German autobahn in the 1930s



The two-lane autobahn, withno emergency lane (Germany)

The idea for the construction of the Autobahn was first conceived during the days of the Weimar Republic, but apart from the AVUS in Berlin, construction was slow, and most projected sections did not progress much beyond the planning stage due to economic problems and a lack of political support. One project was the private initiative HaFraBa which planned a “car-only road” (the name autobahn was created in 1929) crossing Germany from Hamburg in the North via central Frankfurt am Main to Basel in Switzerland. Parts of the HaFraBa were completed in the 1930s and early 1940s, but construction eventually was halted by World War II.

Just days after the 1933 Nazi takeover, Adolf Hitler enthusiastically embraced an ambitious autobahn construction project and appointed Fritz Todt the Inspector General of German Road Construction. Soon, over 100,000 laborers worked at construction sites all over Germany. As well as providing employment and improved infrastructure, necessary for economic recovery efforts, the project was also a great success for propaganda purposes. It has been said that another aim of the autobahn project, beyond creating national unity and strengthening centralized rule, was to provide mobility for the movement of military forces. This, however, overlooks the fact that gradients on autobahns built before the war were far too steep for the goods vehicles of the time. The autobahn’s main purpose, then, was to enable a large proportion of the population to drive long distances in their own cars, enjoying the countryside along the way. This explains some of the autobahn’s routing which offers spectacular views but is impractical for today’s heavy goods traffic.



The autobahns formed the first limited-access, high-speed road network in the world, with the first section from Frankfurt am Main to Darmstadt opening in 1935. This straight section was used for high speed record attempts by the Grand Prix racing teams of Mercedes-Benz and Auto Union until a fatal accident involving popular German race driver Bernd Rosemeyer in early 1938. A similar high speed section was built between Dessau and Halle.

During World War II, the central reservations of some autobahns were paved to allow their conversion into auxiliary airports. Aircraft were either stashed in numerous tunnels or camouflaged in nearby woods. However, for the most part, the autobahns were not militarily significant. Motor vehicles could not carry goods as quickly or in as much bulk as trains could, and the autobahns could not be used by tanks as their weight and caterpillar tracks tore up the roads' delicate surfaces. Furthermore, the general shortage of gasoline which Germany experienced during much of the war, as well as the relatively low number of trucks and motor vehicles badly needed for direct support of military operations, further decreased the attractiveness of autobahns for significant transport. As a result, most military and economic freight continued to be carried by rail. After the war, numerous sections of the autobahns were in bad shape, severely damaged by heavy Allied bombing and military demolition. As well, thousands of kilometers of autobahns remained unfinished, their construction brought to a halt by 1943 due to the increasing demands of the war effort.

In West Germany, following the war, most existing autobahns were soon repaired. During the 1950s, the West German government restarted the construction program; it continuously invested in new sections and in improvements to older ones. The finishing of the incomplete sections took longer, with some stretches being opened to traffic only in the 1980s. Some sections cut by the Iron Curtain in 1945 were only completed after German reunification in 1990. Finally, certain sections were never completed, as more advantageous routes were found. Some of these sections stretch across the landscape forming a unique type of modern ruin, often easily visible on satellite photographs.

The autobahns in East Germany (GDR) and the former German provinces of East Prussia, eastern Pomerania and Silesia in Poland and the Soviet Union after 1945 were grossly neglected in comparison to those in West Germany and Western Europe in general. They received minimal maintenance during the years of the Cold War. The speed limit on the GDR autobahns was 100 km/h (62 mph), however lower speed limits were frequently encountered due to the poor condition of the road surface, changing quickly in some instances. The speed limits on the GDR autobahns were rigorously enforced by the Volkspolizei, whose patrol cars were frequently encountered hiding under camouflage waiting for speeders. In the 1970s and 80s, the West German government paid millions of Deutsche Marks to the GDR for construction and maintenance of the transit autobahns between West Germany and West Berlin, although there were indications that the GDR diverted some of the earmarked maintenance funds for other purposes.

## **CURRENT DENSITY**

Today, Germany's autobahn network has a total length of about 11,980 km. Many sections of Germany's autobahns are modern, containing three lanes in addition to an emergency lane. Some other sections remain in their original state, with two lanes, no emergency lane, short ramps, etc. Such a combination of the two types of autobahn can be seen on the A 9 autobahn (Munich-Berlin). Heading out from Munich, the autobahn starts

off as a modern, four-lane in each direction + emergency lane autobahn. However, after heading into Thuringia, which was formerly part of East Germany, parts of the autobahn are no wider than two lanes and no emergency lane exists (only rare emergency bays with a telephone post in orange-yellow). Ongoing roadworks will eventually bring the entire A 9 to three-lane standard.

## **SPEED LIMITS**

The German autobahns are famous for being some of the few public roads in the world without blanket speed limits for cars and motorcycles. Lack of blanket speed limits does not appear to negatively impact the road safety of autobahns compared with motorways in other countries; motorways are safer than other road types. Certainly, speed limits do apply at junctions and other danger points, like sections under construction or in need of repair. Certain stretches have separate, and lower, speed limits used in cases of wet lanes.

Some limits were imposed to reduce pollution and noise. Limits can also be put into place temporarily through dynamic traffic guidance systems that display the according traffic signs. If there is no speed limit, the recommended speed limit is 130 km/h (81 mph); this speed is not a binding limit, but being involved in an accident at higher speeds can lead to being deemed at least partially responsible due to “increased operating danger”. The average rate of speed traveled on the autobahn in unregulated areas by automobiles not regulated by other laws is about 150 Km/h (93 mph). On average, about half of the total length of the German autobahn network has no speed limit, about one third has a permanent limit, and the remaining parts have a temporary limit for a number of reasons.

In places without a general limit, there are mostly also no restrictions on overtaking. Therefore, those traveling at high speeds may regularly encounter trucks running side-by-side at only about 80 km/h (50 mph). In theory, trucks are not allowed to overtake others unless they drive 20 km/h (12 mph) faster than whomever they are overtaking, but truck drivers are generally under pressure to arrive in time, and such laws are rarely enforced for economic and political reasons, as many trucks are from foreign countries. The right lane of a typical autobahn is often crowded with trucks, and too often, trucks pull out to overtake. Due to size and speed this is often referred to as “Elephant Race”. In some zones with only two lanes in both directions there is no speed limit, but a special overtaking restriction for trucks and/or cars pulling trailers.

Modern cars easily reach well over 200 km/h (124 mph), and most large car manufacturers follow a gentlemen’s agreement by artificially limiting the top speed of their cars to 250 km/h (155 mph) for safety reasons (inexperienced drivers and risk of tires failing, especially when underinflated). Yet, these limiters can easily be defeated, so speeds exceeding 300 km/h (186 mph) are not unheard of, although due to common speed limits and other traffic, such speeds are rarely attainable.

Vehicles unable to attain speeds in excess of 60 km/h (37 mph) are not allowed to use the autobahn. Though this limit is not high for most modern vehicles, it prevents very small cars (e.g. Quads) and motor-scooters (e.g. Mofas) from using autobahns. To comply with this limit, several heavy-duty trucks in Germany (e.g. for carrying tanks or cranes) have a design speed of 62 km/h (usually denoted by a round black-on-white sign with “62” on it).

Since the mid-1980s, when environmental issues gained importance and recognition among lawmakers, interest groups and the general public, there has been an ongoing debate on whether or not a nationwide general speed limit should be imposed for Autobahns. Obviously, a car's fuel consumption increases with speed, and fuel conservation is a key factor in reducing pollution. Safety issues have been cited as well with regards to speed-related fatalities. Opposers of a general speed limit maintain that such regulation is unnecessary because only two percent of all German roads would be affected and because better fuel economy even at high speeds has been achieved in most modern cars. Moreover, recent accident statistics supposedly don't lend proof that traveling at high speeds is that much more dangerous.

Twenty years after the beginning of this debate, there are still no definite plans by the federal government concerning such a speed limit.

## **TRAFFIC LAWS AND ENFORCEMENT**

The German autobahn network is patrolled by unmarked police cars and motorcycles equipped with video cameras; this allows the enforcement of laws (tailgating, for example) which are often viewed in other countries as difficult to prove in court. Notable laws include the following:

- Autobahns in Austria and Germany may only be used by powered vehicles that are designed to achieve a maximum speed exceeding 60 km/h (Switzerland: 80 km/h).
- The right lane must be used when it is free and the left lane is generally intended for passing maneuvers only; drivers using the left lane for prolonged periods of time when the other lanes are free may be fined by Autobahn police.
- Overtaking on the right (Undertaking) is forbidden, except in traffic jams where it may be practiced with caution. The fact that the car overtaken is illegally occupying the left-hand lane is not an acceptable excuse; in such cases the police will routinely stop and fine both drivers.
- In a case of a traffic jam, the drivers must form an emergency lane to guarantee that emergency services can reach the scene of the accident. This lane has to be formed between the left lane and the lane next to the left lane.
- It is unlawful for a driver to stop their vehicle on the road for any reason except in an emergency and/or situations where stopping is unavoidable, such as being in a traffic jam or being involved in a collision. This includes stopping on emergency lanes. Running out of fuel is considered preventable and is consequently fined. In some cases, it can also be deemed a crime, and the driver can be given a prison sentence.
- The distance between vehicles (in meters) should be at least half the speed (in km/h) at all times (e.g. at least 60 meters at 120 km/h). This corresponds to a "lead time" of just under 2 seconds. As a reference: the white-and-black reflection posts to the right have a distance of 50 m to each other. Again, the fact that the car in front is illegally occupying the left-hand lane when the right-hand lane is free does not excuse following too closely.

Fines for tailgating were increased in May 2006. At speeds over 100 km/h, keeping less than 30 percent of the recommended distance now results in a suspension of one's driver's license for one to three months.

- Due to legal regulations it is allowed to honk and flash headlights in order to indicate the intention of overtaking, but a proper distance to the vehicle in front must be maintained. Driving at insufficient distances--even when flashing one's headlights--is illegal.

- The tires must be approved for the vehicle's top speed (winter tires (mud- and snow-tires) for lower speeds (i.e. cheaper than high-speed tires) are allowed, but the driver must have a sticker in the cockpit reminding of the maximum speed).

## **2.4. MODERN ROAD BUILDING**

### **CONSTRUCTION**

Road construction requires the creation of a continuous right-of-way, overcoming geographic obstacles and having grades low enough to permit vehicle or foot travel. Removal of earth and rock by digging or blasting, construction of embankments, bridges and tunnels, and removal of vegetation (this may involve deforestation) are often needed. A variety of road building equipment is employed in road building.

Once these activities are completed, construction of the pavement can begin. First the native soil, known as the subgrade, is compacted. Weak soils may also be stabilized with additives such as portland cement and quicklime, or dug out and replaced with imported soils.

Then a base course consisting of gravel or crushed stone is usually placed on the subgrade and compacted. On top of the base course is placed a surface course which typically consists of asphalt concrete or portland cement concrete. This surface course strengthens the pavement structure by spreading out the vehicle loads applied to the subgrade. It also provides a smooth and high-friction surface for vehicles to drive on.

Modern roads, and indeed many ancient ones, such as those built by the Romans, feature a convex transverse profile known as superelevation or camber. This is designed to allow water to drain away from the road to its edges. Water is then carried away by gutters to drains placed at intervals. Some roads don't have gutters and water simply drains away to a naturally porous verge, or into ditches. Modern roads that carry motor traffic also employ camber in curves to aid traffic stability by allowing them to "bank into" the bend to some extent.

On the side of the road there may be retroreflectors on pegs, rocks or crash barriers, white toward the direction of the traffic on that side of the road, and red toward the other direction. In the road surface there may be cat's eyes: retroreflectors that protrude slightly, but which can be driven over without damage.

Road signs are often also made retroreflective or even illuminated in rare circumstances. For greater visibility of road signs at daytime, sometimes fluorescence is applied to get very bright colors.

### **MAINTENANCE**



A typical rural county road in Indiana, USA, where traffic drives on the right. The yellow lines indicate that passing is allowed in the ongoing direction but not in the oncoming direction.

Like all structures, roads deteriorate over time. Deterioration is primarily due to accumulated damage from vehicles; however environmental effects such as frost heaves, thermal cracking and oxidation often contribute. According to a series of experiments carried out in the late 1950s it was empirically determined that the effective damage done to the road is roughly proportional to the 4th power of axle weight. A typical tractor-trailer weighing 80,000 pounds with 8,000 pounds on the steer axle and 36,000 pounds on both of the tandem axle groups is expected to do 7,800 times more damage than a passenger vehicle with 2,000 pounds on each axle. In most pavement design methodologies trucks are considered to be the sole cause of pavement deterioration.

Pavements are designed for an expected service life. Most European countries have strict standards for road construction that require that most roads should be able to go 30 years or longer between major resurfacings. In the United States new pavements are typically designed for a service life of between 15 and 25 years, depending on the importance of the road. Service life predictions are inherently unreliable due to the difficulty of predicting future traffic and environmental conditions.

## **STREET**

A *street* is a public parcel of land adjoining buildings in an urban context, on which people may freely assemble, interact, and move about. A street can be as simple as a level patch of dirt, but is more often paved with a hard, durable surface such as cobblestone or brick. Portions may also be smoothed with asphalt, embedded with rails, or otherwise prepared to accommodate non-pedestrian traffic.

The word “street” is sometimes used colloquially as a synonym for “road,” but city residents and urban planners draw a crucial distinction: a road’s main function is transportation, while streets facilitate public interaction. Examples of streets include pedestrian streets, alleys, and city-centre streets too crowded for road vehicles to pass. Conversely, highways and motorways are types of roads, but few would refer to them as streets.

## **ROLE IN THE BUILT ENVIRONMENT**

The street is a public environment shared between all sorts of people. As a component of the built environment as ancient as human habitation, the street sustains a range of

activities vital to civilization. Its roles are as numerous and diverse as its ever-changing cast of characters.

Streets can be loosely categorized as main streets and side streets. Main streets are usually broad with a relatively high level of activity. Commerce and public interaction are more visible on main streets, and vehicles may use them for longer-distance travel. Side streets are quieter, often residential in use and character, and may be used for vehicular parking.

## **CIRCULATION**



Rue Saint-Jacques, a street in Montreal, 1910

Circulation, or less broadly, transportation, is perhaps a street's most visible use, and certainly among the most important. The unrestricted movement of people and goods within a city is essential to its commerce and vitality, and streets provide the physical space for this activity.

In the interest of order and efficiency, an effort may be made to segregate different types of traffic. This is usually done by carving a road through the middle for motorists, reserving sidewalks on either side for pedestrians; other arrangements allow for streetcars,

trolleys, and even wastewater and rainfall runoff ditches (common in Japan and India). In the mid-20th century, as the automobile threatened to overwhelm city streets with pollution and ghastly accidents, many urban theorists came to see this segregation as not only helpful but necessary in order to maintain mobility. Le Corbusier perceived an ever-stricter segregation of traffic as an essential affirmation of social order--a desirable, and ultimately inevitable, expression of modernity. To this end, proposals were advanced to build “vertical streets” where road vehicles, pedestrians, and trains would each occupy their own levels. Such an arrangement, it was said, would allow for even denser development in the future. These plans were never implemented on a large scale, a fact which today’s urban theorists regard as fortunate for vitality and diversity.

Transportation is often misunderstood to be the defining characteristic, or even the sole purpose, of a street. This has never been the case, and even in the automobile age, is still demonstrably false. A street may be temporarily blocked to all through traffic in order to secure the space for other uses, such as a street fair, a flea market, or children at play. Many streets are bracketed by bollards or Jersey barriers so as to prevent passage unless on foot. These measures are often taken in a city’s busiest areas, the “destination” districts, when the volume of activity outgrows the capacity of private passenger vehicles to support it. A feature universal to all streets is a human-scale design that gives its users the space and security to feel engaged in their surroundings, whatever through traffic may pass.

## Vehicular Traffic



A street full of vehicles in Shanghai

Despite this, the operator of a motor vehicle may regard a street as merely a thoroughfare for vehicular travel or parking. As far as concerns the driver, a street can be *one-way* or *two-way*: vehicles on one-way streets may travel in only one direction, while on two-way streets may travel both ways. One way streets typically have signs reading “ONE WAY” and an arrow showing the direction of allowed travel. Two-way streets are wide enough for at least two lanes of traffic.

Which lane is for which direction of traffic depends on what country the street is located in. On broader two-way streets, there is often a *center line* marked down the middle of the street separating those lanes on which vehicular traffic goes in one direction from other lanes in which traffic goes in the opposite direction. Occasionally, there may be a median strip separating lanes of opposing traffic. If there is more than one lane going in one direction on a main street, these lanes may be separated by intermittent *lane lines* marked on the street pavement. Side streets often do not have center lines or lane lines.

### **Parking for Vehicles**

Many streets, especially side streets in residential areas, have an extra lane's width on either or both sides for parallel parking vehicles. Most minor side streets allowing free parallel parking do not have pavement markings designating the parking lane. A somewhat recent trend has been to start marking off parking lanes on more important streets. Some streets are too busy or not wide enough to allow parking on the side. Sometimes parking on the sides of streets is allowed only at certain times. Signs off to the side of the street often state regulations about parking. On the side of some streets, particularly in business areas, there may be parking meters into which coins must be paid to allow parking in the adjacent space for a limited time. There may be parking lane markings on the pavement effectively designating which meter a parking space corresponds to. Occasionally, a street may have enough width on the side that there is *angle parking*.

### **Pedestrian Traffic and Vehicular Amenities**

Where vehicular traffic is allowed on a street, traffic and parking regulatory signs are often placed near the sides. Bordering the driving/parking sides of many urban streets, there are curbs. Usually, there are strips of land beyond the driving/parking parts of the streets owned by the government entity owning the streets. Sidewalks are often located on these public land strips beyond the curbs on one or usually both sides of the street. There may be an unpaved strip of land between the vehicle-drivable part of the street and the sidewalk on either side of the street, which can be called the *parkway* or tree lawn. Grass and trees are often grown there for landscaping the sides of the street. Alternatively, there may be openings in wider sidewalks in which trees grow. Streets are often lighted at night with streetlights, which are typically located far overhead on tall poles. Beyond these public strips of land are bordered the front of lots commonly owned by private parties.

Practically all public streets are given a name or at least a number to identify them and any addresses located along the streets. Alleys typically do not have names. The length of a lot of land along a street is referred to as the *frontage* of the lot.

### **IDENTITY**

Streets assume the role of a town square for its regulars. The interaction among the people who live and work on a particular street—"eyes on the street"--can reduce crime, encourage the exchange of ideas, and generally make the world a better place.

Much as a string in a jar can precipitate a beautiful, delicate crystal, a street can serve as the catalyst for neighborhood culture and solidarity. New Orleans' Bourbon Street is famous not only for its active nightlife but also for its role as the center of the city's French Quarter. Similarly, the Bowery in New York City was once known as the center of the nation's underground punk scene. Other streets have marked divisions between



neighborhoods of a city. For example, Yonge Street divides Toronto into east and west sides, and East Capitol Street divides Washington, D.C. into north and south.

Streets also tend to aggregate establishments of similar nature and character. East 9th Street in Manhattan, for example, offers a cluster of Japanese restaurants, clothing stores, and cultural venues. This phenomenon is the subject of urban location theory in economics.

A road, like a street, is often paved and used for travel. However, a street is characterized by the degree and quality of street life it facilitates, whereas a road serves primarily as a through passage for road vehicles or (less frequently) pedestrians. Street performers, beggars, patrons of sidewalk cafés, people-watchers, and a diversity of other characters are habitual users of a street; the same people would not typically be found on a road.

In rural and suburban environments where street life is rare, the terms “street” and “road” are frequently considered interchangeable. Still, even here, what is called a “street” is usually a smaller thoroughfare, such as a road within a housing development feeding directly into individual driveways.

If a road connects places, then a street connects people. One may “hit the road” to see the wonders of the world—Jack Kerouac famously chronicled one such journey—but the latest bling will “hit the streets” before it ever appears on a road. It is “on the street” where one hears an interesting rumor, where one bumps into an old acquaintance, where one acquires smarts. Nobody has ever seen a “road” vendor or a “road” performer, and you’ll never find yourself on a long “street” to nowhere. The street, not the road, is home to the homeless, and even Kerouac’s hero finally returned to find his friends on a New York street.

A town square is a little more like a street, but a town square is rarely paved with asphalt and may not make any concessions for through traffic at all.

## NOMENCLATURE



Abbey Road, London

There is a haphazard relationship, at best, between a thoroughfare’s function and its name. For example, London’s Abbey Road serves all the vital functions of a street, despite its name, and locals are more apt to refer to the “street” outside than the “road”. A desolate road in rural Montana, on the other hand, may bear a sign proclaiming it “Davidson Street”, but this does not make it a “street”.

In the United Kingdom many towns will refer to their main thoroughfare as the High Street (in the United States it would be called the Main Street -- however, occasionally “Main Street” in a city or town is a street other than the *de facto* main thoroughfare), and

many of the ways leading off it will be named “Road” despite the urban setting. Thus the town’s so-called “Roads” will actually be more streetlike than a road.

Streets have existed for as long as humans have lived in permanent settlements. However, modern civilization in much of the New World developed around transportation provided by motor vehicles. In some parts of the English-speaking world, such as North America, many think of the street as a thoroughfare for vehicular traffic first and foremost. In this view, pedestrian traffic is incidental to the street’s purpose; a street consists of a thoroughfare running through the middle (in essence, a road), and may or may not have sidewalks along the sides.

In an even narrower sense, some may think of a street as only the vehicle-driven and parking part of the thoroughfare. Thus, sidewalks and tree lawns would not be thought of as part of the street. A mother may tell her toddlers “Don’t go out into the street, so you don’t get hit by a car.”

Among urban residents of the English-speaking world, the word appears to carry its original connotations (i.e. the facilitation of vehicular traffic as an incidental benefit). For instance, a *New York Times* writer lets casually slip the observation that automobile-laden Houston Street is “a street that can hardly be called 'street' anymore, transformed years ago into an eight-lane raceway that alternately resembles a Nascar event and a parking lot.” Published in the paper’s Metro section, the article evidently presumes an audience with an innate grasp of the full urban role of the street. To the readers of the Metro section, vehicular traffic does not reinforce, but rather detracts from, the essential “street-ness” of a street.

At least one map has been made to illustrate the geography of naming conventions for thoroughfares; street, avenue, boulevard, circle, and other suffixes are contrasted against one another.

## TRAIL



A country trail.



A mountain trail.

A *trail* is a pedestrian path or road mainly used for walking, but often also for cycling, cross-country skiing or other activities. Some trails are off-limits to everyone other than hikers, and few trails allow motorized vehicles.

In the United States, the word *footpath* is also used to mean a trail; however in Australian English, this word means “sidewalk” (American English) or “pavement” (British English).

## WALKING TRAILS CAUSEWAY



The rail causeway  
across the Wadden Sea to  
the island of Sylt in Germany



The causeway to Antelope Island in  
the Great Salt Lake, Utah, USA

In modern usage, a *causeway* is a road or railway elevated by a bank, usually across a broad body of water or wetland. A transport corridor that is carried instead on a series of arches, perhaps approaching a bridge, is a viaduct. The distinction between the terms *causeway* and *viaduct* becomes blurred when flood-relief culverts are incorporated. Many causeways are tidal, being covered for a period surrounding high tide.

### DERIVATION OF THE WORD

When first used, the word appeared in a form such as “causey way” making clear its derivation from the earlier form “causey”. This word seems to have come from the same source by two different routes. It derives ultimately, from the Latin for heel, *calx* and as near certainly as may be, comes from the trampling technique for consolidating earthworks. In antiquity, the construction was trodden down, one layer at a time, by people such as slaves. Alternatively, a flock of sheep might be used. Today, a machine does the job. The same technique would have been used for road embankments, raised river banks, sea banks and fortification earthworks.

The second derivation route is simply the hard, trodden surface of a path. The name by this route came to be applied to a firmly-surfaced road. It is now little-used except in dialect and in the names of roads which were originally notable for their solidly-made surface. The word is comparable in both meanings with the French *chaussée*, from a form of which it reached English by way of Norman French. The French adjective, *chaussée*, carries the meaning of having been given a hardened surface, and is used to mean either paved or shod. As a noun *chaussée* is used on the one hand for a metalled carriageway, and on the other for an embankment with or without a road.

### ENGINEERING

The modern embankment may be constructed within a *cofferdam*: two parallel steel sheet pile or concrete retaining walls, anchored to each other with steel cables or rods. This construction may also serve as a dyke that keeps two bodies of water apart, such as bodies with a different water level on each side, or with salt water on one side and fresh water on the other. This may also be the primary purpose of a structure, the road providing a hardened crest for the dike, slowing erosion in the event of an overflow. It also provides access for maintenance as well perhaps, as a public service.

## EXAMPLES OF USE



The Causeway Section of the still under-construction Cebu South Coastal Road in Cebu, The Philippines

Notable causeways include those that connect Singapore and Malaysia (the Johor-Singapore Causeway), Bahrain and Saudi Arabia (25-Km long King Fahd Causeway) and Venice to the mainland, all of which carry roadways and railways. In the Netherlands there are a number of prominent dykes which double as causeways, including the Afsluitdijk, Brouwersdam, and Markerwaarddijk. In Louisiana, two very long bridges, called the Lake Pontchartrain Causeway, stretch across Lake Pontchartrain for almost 38 km, making them the world's longest bridges (if total length is considered instead of span length). In the Republic of Panama a causeway connects the islands of Perico, Flamenco, and Naos to Panama City on the mainland. It also serves as a breakwater for ships entering the Panama Canal.

Causeways are also common in Florida, where low bridges may connect several man-made islands, often with a much higher bridge (or part of a single bridge) in the middle so that taller boats may pass underneath safely. Causeways are most often used to connect the barrier islands with the mainland.

The Churchill Barriers in Orkney are of the most notable sets of causeways in Europe. Constructed in waters up to 18 metres deep, the four barriers link five islands on the eastern side of the natural harbour at Scapa Flow. They were built during World War II as military defences for the harbour, on the orders of Winston Churchill.

## PRECAUTIONS IN USE

Causeways affect currents and may therefore be involved in beach erosion or changed deposition patterns. This, for instance, has been a problem at the Hindenburgdamm in northern Germany. Causeways are often a problem with an approaching hurricane or strong tropical storm, because the high winds and waves make them dangerous. Along with traffic jams, this is a major reason for the early emergency evacuation of island residents during a weather emergency.



The Sendero de los quetzales in Panamá

Trail use has become very popular for a wide variety of users. Some trails are designated as *nature trails*, and are used by people learning about the natural world. Many trails are designated *day trails*, meaning that they are generally used by people out for a short hike, less than a day. Some trails are designated *backpacking trails*, or long-distance trails, and are used by both day hikers and by backpackers. Some of the trails are over a thousand miles (1,500 km) long and may be hiked in sections by backpackers, or completed in one trip by dedicated hikers. Some trails are specifically used by other outdoor enthusiasts to gain access to another feature, such as good climbing sites. Many runners also favor running on trails rather than pavement, as giving a more vigorous work-out and better developing agility skills, as well as providing a more pleasant exercise environment.

## **BICYCLE TRAILS**

Recent decades have seen an explosion of interest in cycling, both street-type and off-road type. Many graded, surfaced bike paths have been built, but especially popular is the off-road, or *mountain* biking. A common term for these facilities is simply “bike trail”. These trails may be built to a different set of standards than foot trails, requiring more stable, harder surfaces, less strenuous grades, longer sight visibility, and less sharp changes in direction. On the other hand, the cross-slope of a bike trail may be significantly greater than a foot trail, and the actual treadway may be narrower in some cases.

A particular offshoot of trail biking is *downhilling*, which can be environmentally destructive if not well-managed. Downhilling is particularly popular at ski resorts such as Mammoth Mountain in California or Whistler in British Columbia, where ski lifts are used to get bikes and riders to the top of the mountain.

Because of the greater need for more gradual grades, changing elevations may involve sidehill trails with multiple switchbacks, while these may not be necessary for hikers. In cases where hikers use these bike trails, attention must be paid to the potential of cutting across switchbacks.

Where bike trails intersect with pedestrian or equestrian trails, signage at the intersections is important, and high visibility onto the intersecting trails must be a priority in order to prevent collisions between fast-moving cyclists and slower moving hikers and horses. Bicycles and horses should be allowed on the same trails where the trail is wide enough with good visibility.

A well designed bike trail will have an average grade of less than 10%, and will generally follow a countour line, rather than straight downhill. The trail should slope out

or across the trail 3-5% downhill to encourage water to run off the side, rather than down the trail bed. In addition, frequent grade reversals also prevent water from running down the trail, make the trail more fun and interesting to ride, and generally help keep bike speeds down, providing a more safe trail experience for all users.

## **EQUESTRIAN TRAILS**

Horseback riding has continued to be a popular activity for many trail users. Again, *horse trails* must be built to different standards than other trails. Sight distance is an important issue with horse trails, as is overhead and side clearance. While trail surface types are a relatively insignificant issue with hikers, they may be an important issue with horses. Horses can negotiate much steeper terrain on a dirt trail, for instance, than on a gravel trail. Horses can usually negotiate much the same grades as hikers, but not always, although they can more easily clear obstacles in the path such as logs. A hard trail surface and drainage is a critically important issue on horse trails because of the relatively greater bearing impact of the horse's hoof on the trail than a hiker's foot.

## **TRAIL CONSTRUCTION**



A walking path.

While many trails have arisen through common usage, quality trail design and construction is a complex process requiring certain sets of skills.

When a trail passes across a flat area that is not wet, often all that is required is to clear brush, tree limbs and undergrowth to produce a clear, walkable trail. When crossing streams, bridges may or may not be desirable, depending on the size of the stream and the depth of its banks. In wet areas, it may be necessary to create an elevated *trailway* with fill or by building a boardwalk. One problem with boardwalks is that they require frequent maintenance and replacement - boards in poor condition are often slippery and hazardous.

## TRAILS ON SLOPES



This trail leads straight over the hill.

A common mistake in establishing trails is to make them on slopes that are too steep for comfort and the environment. Such steep trails generally result in serious erosion, a wide swath of impacted area as walkers go to the sides to find better footing, and the inability of many hikers to walk the trail. An absolute limit for trail grades is a grade of one in six, and a more practical limit is a slope of one in eight. Trails that ascend steep slopes may use switchbacks (also called hairpins), but switchback design and construction is a specialized topic that takes great care. The best trail designs eliminate switchbacks.

If a trail is being made to be accessible to off-road wheelchairs, the grade should be no more than one in ten. If a paved trail has to be accessible to all wheelchairs, the grade must be no more than one in twelve, with periodic level pull-offs.

The *off-slope*, or *side-slope*, of the trail also must be considered. This is the slope of the trail from side to side, and should never be more than one in twelve. Side-sloped trails are prone to gullying. Ideally, the treadway of the trail should be almost, but not quite, level in cross-section.

Achieving the proper slope in hilly terrain usually requires the excavation of *sidehill* trail. This is a trailway that is constructed by establishing a line of suitable slope across a hillside, then digging out by means of a mattock or similar tool to create the trail. This may be a *full-bench* trail, where the treadway is only on the firm ground surface after the overlying soil is removed and thrown to the side as waste, or a *half-bench* trail, where soil is removed and packed to the side so that the treadway is half on firm old ground and half on new packed fill. In problem areas, it may be necessary to establish the trail entirely on fill. In cases where filling is used, it's necessary to pack it firmly and to revisit the site periodically to add to the fill and repack it until fully stable.

## DRAINAGE

An important and often-overlooked factor in trail construction is that of drainage. Where a trail is near the top of a hill or ridge, this is usually a minor issue, but when it is farther down it can become a very major issue. Trails, by their nature, tend to become drainage channels and eventually gullies if the drainage is not properly controlled.



A waterbar in New York's Catskill Mountains. The trail forks right; the drainage ditch to the left.

In areas of heavy water flow along a trail, it may be necessary to create a ditch on the uphill side of the trail with drainage points across the trail. The cross-drainage may be accomplished by means of culverts, which must be cleared on a semi-annual basis, or by means of cross-channels, often created by placing logs or timbers across the trail in a downhill direction, called *waterbars*. Using timbers or rocks for this purpose also creates erosion barriers. Rock paving in the bottom of these channels and in the trailside ditches may help to maintain stability of these. Ideally, waterbars should be created, with or without ditching, at major points of water flow on or along the trail, and in conjunction, if possible, with existing drainage channels below the trail. Another important technique is to create drain dips, points on the trail where it falls briefly (for a metre or so) and then rises again. These provide positive drainage points that are almost never clogged by debris.

## MULTI-USE TRAILS

Trails intended for use by bicycles, wheelchairs and pedestrians will often be surfaced, especially in heavily-used or urban areas. This can be asphalt paving, or compressed stone dust. Such trails will also have well-built bridges with a supported deck and side rails.

There has been a major effort to convert abandoned railroad grades to bike paths or multi-use paths.

## SIGNS

<p>CONTINUE STRAIGHT</p>	<p>START OF TRAIL</p>	<p>RIGHT TURN</p>
<p>SPUR LEADING TO A DIFFERENT TRAIL</p>	<p>END OF TRAIL</p>	<p>LEFT TURN</p>

The most common symbols used in trail blazing



FOR LONG-DISTANCE TRAILS, OR TRAILS WHERE THERE IS ANY POSSIBILITY OF ANYONE TAKING A WRONG TURN, SIGNS SHOULD BE PROVIDED. THIS MAY BE ACCOMPLISHED BY USING EITHER PAINT ON NATURAL SURFACES OR BY PLACING PRE-MADE MEDALLIONS. HORSESHOE-SHAPED BLAZES ARE GOOD FOR EQUESTRIAN TRAILS (BUT BE SURE TO HAVE THE “U” OF THE HORSESHOE OPENING TO THE TOP, OR YOU’LL OFFEND SOME RIDERS!). THE APPALACHIAN TRAIL IS BLAZED WITH WHITE RECTANGLES. BLUE IS OFTEN USED FOR SIDE TRAILS. EUROPEAN WALKING PATHS ARE BLAZED WITH YELLOW POINTS ENCIRCLED WITH RED. HOWEVER, OTHER WALKING PATHS IN EUROPEAN COUNTRIES ARE BLAZED IN A VARIETY OF MANNERS.

### **MAINTENANCE**

Natural surface, single track trails will require some ongoing maintenance. However, if the trail is properly designed and constructed, maintenance should be limited to clearing downed trees and trimming back brush. If the trail is properly designed, there should be no need for major rework such as grading or erosion control efforts.

### **TRAFFIC SIGN**

Most countries post signage, known as *traffic signs* or *road signs*, at the side of roads to impart information to road users. Since language differences can create barriers to understanding, international signs using symbols in place of words have been developed in Europe and adopted in most countries and areas of the world. The Vienna Convention on Road Signs and Signals of November 8, 1968 defines eight categories of signs:

- A. Danger warning signs
- B. Priority signs
- C. Prohibitory or restrictive signs
- D. Mandatory signs
- E. Special regulation signs
- F. Information, facilities, or service signs
- G. Direction, position, or indication signs
- H. Additional panels

However, countries and areas categorise road signs in different ways.

### **HISTORY**



## Roman milestone

The earliest road signs were milestones, giving distance or direction; for example, the Romans erected stone columns throughout their empire giving the distance to Rome. In the Middle Ages multidirectional signs at intersections became common, giving directions to cities and towns.

Traffic signs became more important with the development of automobiles. The basic patterns of most traffic signs were set at the 1908 International Road Congress in Rome. Since then there have been considerable change. Today they are almost all metal rather than wood and are coated with retroreflective sheetings of various types for nighttime and low-light visibility.

New generations of traffic signs based on big electronic displays can also change its symbols and also provide intelligent behavior by means of sensors or by remote control. In this sense, "road beacons" (RBS) based in the use of RFID special transponders buried in the asphalt arise as an innovative evolution for on-board signalling.

Yet another "medium" for transferring information ordinarily associated with visible signs is RIAS (Remote Infrared Audible Signage), e.g. "Talking Signs" for print-handicapped (including blind/low-vision/illiterate) people. These are infra-red transmitters serving the same purpose as the usual graphic signs when received by an appropriate device such as a hand-held receiver or one built into a cell phone.

## EUROPE

In 1968, the European countries signed the Vienna Convention on Road Traffic treaty, the aim of which was to standardize traffic regulations in participating countries in order to facilitate international road traffic and to increase road safety. Part of the treaty was the Vienna Convention on Road Signs and Signals, which defined the traffic signs and signals. As a result, in Western Europe the traffic signs are well standardized nowadays, although there are still some country-specific exceptions in many countries, mostly dating from the pre-1968 era. The convention has been adapted to allow variations when countries weren't expected to follow the main standard.

The basic principle of the European traffic sign standard is that usage of certain shapes and colours are to be used systematically for indicating the same purposes. Triangular shapes (white or yellow background) are used in warning signs. Additionally, the Vienna convention allows an alternative shape for warning signs, a diamond shape, which is rarely used in Europe. The prohibition signs in Europe are round with a red border. Informative and various other secondary signs are of rectangular shape. With the animal warning signs, one can notice national flavour quite often, with symbols of moose, frog, deer, cow, etc., even Polar bear in Svalbard and monkey in Gibraltar, and the Convention allows any animal to be used.

Directional signs have not been harmonised under the Convention, at least not on ordinary roads. As a result, there are substantial differences in directional signage throughout Europe. Differences apply in typeface, type of arrows and, most notably, colour scheme. The convention however specifies a difference between motorways and ordinary roads, and that motorways use white-on-green (e.g. Italy, Switzerland, Denmark, Sweden, Finland, Slovenia, Croatia, Czech Republic, Slovakia) or white-on-blue (e.g. Germany, the Republic of Ireland, France, United Kingdom, Spain, Netherlands, Belgium, Austria, Luxembourg, Poland, Portugal).

Differences are greater for non-motorways: white-on-blue in Italy, Switzerland, Sweden, Slovakia, Finland and Netherlands (in this case the same as motorways), white-on-green in France, United Kingdom, Poland and Portugal, black-on-yellow in Germany, Luxembourg, Norway, Slovenia and Croatia, red-on-white in Denmark (though white-on-blue on motorway exits), and black-on-white in Spain. Other nations split among the non-motorways.

Secondary roads are different from primary roads in France, United Kingdom, Finland, Republic of Ireland, Switzerland and Portugal, always signposted in black-on-white. In Italy and Sweden, black-on-white indicates only urban roads or urban destinations.

Signposting road numbers differs greatly as well. Only the European route number, if signposted, will always be placed in white letters on a green rectangle.

The languages to be used are according to the convention the language(s) of the individual country. Some signs like “STOP”, “ZONE” etc. are recommended to be in English, but the local language is also permitted. If the language uses non-Latin characters, the names of cities and places should also be in Latin transcription.

European countries use the metric system on road signs (distances in kilometres or metres, heights/widths in metres) with the notable exception of the UK, where distances are still indicated in miles. For countries driving on the left, the convention stipulates that the traffic signs should be mirror images of those used in countries driving on the right. This practice, however, is not systematically followed in the two European countries driving on the left, the Republic of Ireland and the United Kingdom. The convention permits the usage of two background colours for danger and prohibitory signs, white or yellow. Most countries use white with a few exceptions like Sweden, Finland, Iceland and Poland, for instance, where the yellow colour was chosen.

## GRAMMAR EXERCISES

### *Non-Finite Forms*

#### *Infinitive*

**Ex. 1. Insert the infinitive with the particle to before it where necessary.**

1. She began (to talk) of Moscow. 2. I don't want them (to think) you in the wrong. 3. It was a command from her mother, and there was nothing for her (to do) but (to obey) it. 4. You must (to take) care not (to offend) her. 5. I'd rather not (to go) home that way. 6. 'I think we'd better (to go) and (to get) dry,' he said. 7. I stood by the door and watched him (to take) the drinks over to Wells. 'Do you want (to write)?' – 'Of course.' – Then why not (to write) it?' 9. It heartened Mary (to hear) him (to speak) so lightly. 10. How dare you (to interfere) with my private concerns? No, don't speak. Don't try (to excuse) yourself. 11. Liza felt herself (to grow) red to the tips of her toes. 12. I had not seen Jimmie (to lose) his temper before. 13. Mrs Carey rose (to help) her (to lay) the cloth. 14. Why not (to make) him a doctor like his father? 15. He would never cease (to regret) his lost opportunities. 16. I want (to begin) (to earn) my corn. 17. I used (to spend) a lot of time in Robison's rooms. 18. He never let himself (to be) angry.

**Ex. 2. Use the required form of the infinitive in brackets. Insert the particle to where necessary.**

1. I want (to go) to the East. 2. That was the last thing she expected (to hear) him (to say). 3. At that hour she was unaccustomed (to disturb) by anyone. 4. She could not let herself (to cry). 5. He wished (to make) the most of his opportunity. 6. He seemed (to think) over what he wanted (to say). 7. I watched the shore (to come) close, then (to swing) away, then (to come) closer. 8. He wants (to congratulate) you in person. 9. 'As soon as Joe gets here,' Mel instructed, 'I want (to notify) whenever I am.' 10. The

question is, what had I better (to do) with this house? 11. Wrap up my lunch, child. I must (to go) now. 12. He doesn't like (to keep) waiting. 13. I don't like (to see) men (to cry). 14. I hate (to leave) our fine house. 15. They do nothing but (to talk) about it all day long. 16. There was nothing (to do) but (to knit) all day long. 17. His face showed his grief and how upset he was, and his eyes seemed (to ask) for consolation. 18. He had felt that they should (to bring) up by their mother. 19. But he dared not (to ask) what was in her mind. 20. He felt that her friends ought (to choose) for her. 21. 'We're just going in,' he said to Bosinney. 'You'd better (to come) back to dinner with us.' 22. The street and the house were quiet, but from St Charles Avenue and beyond could (to hear) distant sounds of the awakening city. 23. I have never heard anyone but them (to do) so.

**Ex. 3. Use the required form of the infinitive in brackets. Insert the particle to where necessary.**

1. I decided (to make) a fuss, and went (to look) for Robinson. 2. We walked to the door and I saw her (to go) in and down the hall. I liked (to watch) her (to move). 3. Let's (to go) and (to find) him, he's sure (to be) in front of his picture. 4. It's very interesting (to hear) you (to say) that. 5. Some important decisions must (to make) soon. 6. You must (to do) something heroic at that time. 7. I think he must (to suffer) from injury now. 8. You must (to dream) of it long. 9. She liked, passionately (to like), (to think) worthy of confidence. 10. Let me (to hold) the baby, Scarlett. Oh, I know how (to hold) babies. 11. She noticed that he seemed (to look) at the sideboard and with her engaging smile leaned forward. 12. Do you want (to make) something (to happen)? 13. But there is something else (to do). 14. I have not done much for you. You might (to ask) much more at that time. 15. 'If you've got nothing to say,' I said, 'why (to try) (to say) it? Why not (to have) a little rest?' 16. There was one announcement (to make).

**Ex. 4. Paraphrase the following using complex objects with the infinitive.**

1. He heard how one of the other girls in the shop addressed Jane. 2. He felt that the eyes of his fellow-students rested on him. 3. He saw that the door of the sitting-room opened and her mother entered. 4. What I want is that your uncle shouldn't be left alone. 5. She smiled when she heard how he locked the door loudly. 6. What she wanted was that he would come and see her. 7. Jack watched how Eliza left, then he walked slowly down the hall to his father's room. 8. I've never heard him how he spoke of his life in Canada.

### *Participle I*

**Ex. 1. Use the appropriate form of participle I of the verb in brackets.**

1. Poirot and I behaved in the customary fashion of people (to show) over the houses. 2. I felt a bitter envy towards the two small boys (to walk) along the path. 3. (To greet) her, he turned the key in the only door with a certain skill. 4. (To have) tea she went early to Victoria Station. 5. There was a noise of curtain-rings (to run) back along the rods, of water (to splash) in the basins. 6. She had a pale face and dark hair (to turn) grey. 7. (To pick) up his coat, he walked on into the field. 8. The dog Balthasar, (to walk) round the three small flower-beds, had also taken a seat in front of old Jolyon. 9. He and Soames stood in the drawing-room (to wait). 10. Not for one moment did he show surprise at the wedding gift (to present) to him personally. 11. (To dry) his hands, Tom came across from the washstand. 12. The major was at the telephone (to sit) on a box. 13. She had a hand on his shoulders and was including herself in the pictures (to take). 14. He crossed the room to the long buffet (to stand) beside the girl he picked up a sandwich. Then, (to turn) and (to speak) nervously and with an effort he said, 'I say, do you mind if I speak to you?' 15. (To think) this, with some comfort, she fell asleep. 16. (To see) Fleur and his grandson off to the sea that morning, he felt flat. 17. Miss Lindey, (to see) Rose, smiled. 18. Miss Swiss poured out another cup of tea for herself, and (to taste) it, plunged into further

confidences. 19. (To walk) longside, Dan inclined his head towards the building they had left. 20. (To jump) down from the stairs, he went over to the driver. 21. (To lift) the telephone, Peter asked for the director.

**Ex. 2. Use the infinitive or participle I of the verb in brackets.**

1. He watched McNeil (to cross) the room and (to go) out of the door. 2. She saw his teeth (to gleam) in what must be a smile. 3. 'Some stairs here,' said Calvin. Hunter saw him (to vanish) down a twist of two stairs. 4. He lifted his head quickly and saw Annette (to stand) just outside the drawing-room windows. 5. This phrase made Jane (to sigh) deeply as she poured out the coffee. 6. The noise in the entrance hall continued, and more vehicles could be heard (to arrive) at the door. 7. 'Hold the print with these tons,' said Calvin, 'and move it in the solution as I told you. Soon you'll see the picture (to appear). It's like magic. I never get tired of seeing the picture (to come). 8. As Rosa watched Jan (to disappear) round the corner fifty yards away down the workroom, she smiled violently to see his face. 9. Calvin departed laughing, and could be heard (to laugh) and (to sneeze) all the way down the stairs. 10. Looking toward the door, he saw Lucy (to come) in. 11. He walked through the drawing-room into the garden. In the last light he saw the flowers (to close) up.

**Ex. 3. Point out the complex object with the participle. Translate the sentences into Russian.**

1. I heard him moving about, and presently he was back with some hot soup. 2. When Mary opened her eyes she saw Nina standing by her side. 3. Simon shortly found her having coffee in the sitting-room. 4. She felt her cheeks blushing a little. 5. I noticed Tom Wells standing in the shadow of the mountain. 6. She liked to watch him doing things, digging, planting, trimming.

***Participle II***

**Ex. 1. Pay attention to the use participle II in the following sentences and translate them into Russian.**

1. The answer to this was unexpected. 2. You didn't look so interested. 3. There was a stillness in the small intimate dining-room, broken only by the subdued ticking of a Dutch clock upon the wall. 4. He replaced used ash-trays on the table with fresh, and refilled Dodo's coffee cup, then the others. 5. He entered, puzzled but interested. 6. She always became impatient when asked to define a word of whose definition she was not sure. 7. Puzzled by the dim light, Sanders turned his attention to the inshore areas. 8. 'Tell you what,' said Gideon, as if struck with a new idea. 9. You could have passed me by unnoticed. 10. Presently he came to a standstill, with his hands deep plunged into his pockets. 11. She had no photographs of herself taken since her marriage.

**Ex. 2. Point out the complex object with participle II. Translate the sentences into Russian.**

1. I am not accustomed to having my word doubted. 2. I want my head examined for making this dangerous journey. 3. 'I want to get the grass cut,' he said. 4. 'Do people have their own photographs taken?' said Paul. 5. Your sister would like the bottle opened. 6. I want Jane and her husband moved into one of the new houses on the hill. 7. Eliza, as she did on most days, had coffee and a sandwich sent in. 8. At last she heard her name called. 9. He also kept his hair dyed black. 10. Shall we have Nevill brought down to say good night? 11. She ordered the calf driven from the yard. 12. If you insult me I shall have you turned out of here.

***Gerund***

**Ex. 1. Use the indefinite gerund of the verb in brackets in the active or passive voice.**

1. He looked forward to (to meet) his parents. 2. You can't be afraid of (to hurt) unless you've been hurt. 3. He took his time about (to answer). 4. Robinson could not live in the caves. They aren't for (to live). They're for (to go) through. 5. But in fear of (to recognize) she lowered her gaze. 6. So I see. You're good at (to make) yourself at home. 7. Jack would have gone to his bedroom without (to see). 8. My sister would never leave without (to see) me. 9. Jennie sat them up to their dinner, and Jeff presently stopped (to cry). 10. She couldn't help (to like) the look in his brown eyes. 11. He had got out of the habit of (to ask) questions by demonstrators. 12. I've always liked (to take) risks. 13. I seem to remember (to tell) not to grumble by someone. 14. She had not even got round to (to ask) for anything yet, because she was too busy to tell him about her grandmother. 15. At his departure Rose had continued to weep, largely through fury at (to leave) alone with Nurse Williams.

**Ex. 2. Change the construction of the sentences using the gerund.**

1. She bowed her head but she did not speak. 2. I like when I do everything myself. 3. Philip was tired because he talked too much. 4. She insisted that she should be called Joyce Emily. 5. Within less than a minute, after she apologized to her guest, she was in the express lift to the main floor. 6. When he returned she went immediately into the dining-room. 7. I don't remember that I met him in London. 8. Little Jane liked when she was clean. 9. After he examined the patient he said it was simply a case of nerve strain. 10. I'm so tired because I sit at home. 11. I am still a little afraid to be late. 12. I like to get hold of nice things. 13. The younger man hesitated before he answered. 14. When he entered the room, he addressed Alec Warner without preliminaries. 15. I suggested that I should visit the Smiths. 16. She glanced round the comfortable consulting room before she answered. 17. He went on and did not pay any attention to her interruption. 18. He barely skimmed through his next letter before he handed it over to Raymond. 19. She stepped back and did not say a word. 20. After he left his friends at the university he bought copies of the early editions of the post. 21. Tom realized that he had seen Jane before but he did not recognize her. 22. When he realized this his first thought was to leave the vicinity of the house as quickly as possible.

**Ex. 3. Complete the sentences using the gerundial complexes from the following list:**

*your thinking, her talking, my bringing, our waiting, his being taken, my not sitting, our keeping, your being left alone, your hearing*

1. 'You do not mind ... Graham,' said Daniel. 'I find it best to keep him under my eye.' 2. It is true she had prevented ... to a mental home for treatment. 3. I like the idea ... of other projects. 4. Some people, it seems, don't like ... to the rules. 5. But that doesn't excuse ... to Mrs Leidner as though Mrs Leidner were her great aunt. I could see that Robinson was making an effort to form some communal for the period of ... on the island. 7. 'You don't mind ... at one of your tables this afternoon?' he asked once, when he was walking to the station with her. 8. There must be something wrong with ... , Godfrey. 9. I should have thought that ... alone has given you a lot of opportunities.

**Ex. 4. Use the required form of the gerund and insert prepositions where necessary.**

1. Good-bye, and thank you ever so much ... (to come) with me. 2. She was afraid... (to go) on public transport. 3. She began to have frightful pains all over her, and she held her breath to prevent herself ... (to cry) out and (to wake) her mother. 4. This was Daphne's only chance ... (to tell) them of her college life. 5. She had the local habit ... (to place) the word 'eh' at the end of her remarks, questions and answers alike. 6. I was aware ... (to plunge) into a network of fresh difficulties. 7. His mother would not like the idea ... (to eat) fruit unwashed. 8. 'It seems to me an awfully selfish way ... (to look) at things,' said Philip. 9. 'I don't see the use ... (to read) the same thing over and over again,' said

Philip. 10. Sandy could not remember ... (to ask) about it. 11. I had not asked for advice, I was quite capable ... (to advise) myself. 12. That's no reason ... (to give) up. 13. It would be better to wait for him on the terrace where she was fond ... (to sit) toward evening (to enjoy) the view of which she was never tired. 14. Dad would not dream ... (to say) such a thing to anyone. 15. Mrs Brodie was greatly taken aback and suffered greatly from a sense ... (to betray). 16. He was looking forward ... (to take) the tickets. 17. Are you thinking, Sandy, ... (to do) a day's washing? 18. And then a minute or two afterwards someone else entered the room and expressed his surprise ... (to find) Griffiths there. 19. She was on the point ... (to obtain) permission to go for walks alone. 20. Jane, your nose wants ... (to blow). 21. 'That child needs ... (to take) care of,' said Eliza. 22. He felt that life was worth ... (to take) care of. 23. The night seemed very long. He shivered. He was ashamed ... (to sleep) on the Embankment. 24. They were busy ... (to find) some food. 25. Did he suspect her ... (to see) him enter the room? 26. Thank you ... (to give) me this book. 27. His heart sank at the thought ... (to go) out into the bleak darkness. 28. These girls did not say anything to the others ... (to paint) by the art master. 29. 'I'm not very good ... (to guess),' I said, with a laugh. 30. Ann was such a friendly, pretty child, few people could resist ... (to talk) to her. 31. The baby was round and very red, with dark curly hair. 'Fancy her ... (to have) hair. I thought they were born bald,' said Raymond. 32. I don't like ... (to wear) a black tie to movies. I enjoy ... (to see) my movies when I eat popcorn. 33. But I can't tell you how grateful I am to you ... (to listen) to me. I had to talk about it and it was so kind of you to listen.

## **2.5 MY FUTURE SPECIALTY AND ITS IMPORTANCE FOR THE ECONOMIC DEVELOPMENT OF THE REPUBLIC OF BELARUS:**

### **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 phrases 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?

## **6. 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.

## **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 building. 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 to house 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 quickly for

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 advance how 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 invention 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 safety 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.

## GRAMMAR EXERCISES

**Ex. 1. Use the gerund from the following list as:**

**a) subject**

*continuing, going, riding, keeping, finding*

1. Robinson thought at the time that ... a journal would be an occupation for my mind.

2. My brother always said that ... is the best exercise. 3. I'm afraid it's no use ... this discussion. 4. It's no use ... over old ground. 5. ... him there surprised me greatly.

**b) direct object**

*itting, opening, hearing, being, doing*

1. I remember ... her complain to Joe. 2. The box was stoutly made and resisted ... .

3. I intend ... it tomorrow. 4. Would you mind ... over here? 5. Now I had resolved, if possible, to avoid ... alone with any of these men, these strangers.

**c) prepositional object**

*shaking, stopping, calling, getting, drinking, missing, dealing, being, saying, twisting*

1. She was afraid of ... Miller in the crowd. 2. He was fond of ... : 'The superstition of today is the essence of yesterday.' 3. Thank you for ... . 4. On the way home Sally insisted on ... in front of our college. 5. I assure you I am quite capable of ... with the matter. 6. After that, of course, I had difficulty in ... off Tom Wells. 7. I am sick and tired of ... tea without milk. 8. Surely that prevents the day from ... ordinary. 9. They were certainly clever at ... one's remarks.

**d) attribute**

*eating, coming, getting, reading, going, greeting, discussing*

1. The surgery opened at five-thirty, and I made a point of ... along there quite promptly. 2. The only way of ... to the dance was on our bicycles. 3. They talked and laughed and shouted, and there was the clatter of knives and forks, and strange sounds of ... . 4. Philip had few friends. His habit of ... isolated him. 5. He could not bear the thought of ... his situation. 6. There were cries of ... from a dozen voices and they moved toward her. 7. Philip could never tell lies without embarrassment, and he was scarlet when he finished his explanation for not ... .

**e) adverbial modifier of time**

*hearing, answering, leaving, passing, looking, reading, racing*

1. She looked at the paper, after ... out this question. 2. Before ... , the little old lady grasped his arm. 3. He spent those nights after ... at his mother's house in Green Street. 4. He found an endless excitement in ... at their faces and ... them speak. 5. Tom considered before ... . 6. She seemed excited on ... this. 7. Poirot had looked up at the staircase in ... , and shook his head in a dissatisfied manner.

8. ... .

**f) adverbial modifier of manner, attending circumstances or cause**

1. *noticing, having, disguising, bringing, answering,*

2. *working, coughing, laughing, breaking*

1. Cindy glanced up, then away, without ... . 2. Lize was able to make her own living by ... at a factory. 3. Eventually Selvyn couldn't laugh for ... , and again, he couldn't cough for ... . 4. Can't we even laugh properly without ... trouble? 5. Was he trying to escape by ... himself? 6. Major Pennyman went on without ... her interruption. 7. We might be fined for ... the Press along, George. 8. You might ruin all my life by ... your promise.

9. ... .

**g) part of a compound verbal predicate**

*pacing, shaking, saying, looking, reproducing, eating, chatting, knitting*

1. Teddy Lloyd continued ... Jean Brodie in his paintings. 2. He began ... the words aloud to himself. 3. They went on ... their dinner. 4. The old man stopped ... her fist and stick. 5. Sandy kept ... ahead, Mary tried to keep up with her. 6. Anson Harris had ceased ... out and was flying on instruments alone. 7. Two weeks old this child was, and the lady had just finished ... her a pram-cover in stripes of white and blue. 8. The twins started ... about their school life.

**Ex. 2. Point out the absolute participial phrase and translate the sentences into Russian.**

1. He reached out across the table, his hand covering Marsha's. 2. Iris stared out over the landscape, her chin cupped in her hand. 3. She stopped, a red spot on each cheekbone. 4. Old Jolyon stood at the bottom of the bed, his hands folded in front of him. 5. And, cigar in mouth, old Jolyon said: 'Play me some Chopin.' 6. Chance was silent, his eyes intent on Silvertip. 7. They set out with a lantern, Boddick telling his tale. 8. Treleaven stood by the radio panel, his fingers fixed on the clock. 9. He stood, his hands behind him. 10. One night, Winifred having gone to the theatre, he sat down with a cigar, to think. 11. He looked at her intently, his curiosity reviving. 12. They were on the porch and Rhett was bowing right and left, his hat in his hand, his voice cool and soft. 13. Less than half an hour ago, after Dodo's leave-taking, he had paced the suite living-room, his thoughts confused and troubled. 14. Archie sat on a stool by the hearth, his back against the fireplace.

**Ex. 3. Paraphrase the following sentences using the complex subject with the infinitive.**

a) 1. He marched into the hall. She heard him lift the receiver and give the number. 2. He did not expect her to write often, for he knew that the letter-writing came difficult to her. 3. He saw those three return together from the other room and pass back along the far side of the screen. 4. 'Oh, I didn't hear you come in.' – 'I came to see if I could be of any help to you,' said Race. 5. A voice on the stairs behind made us all start. 6. He made the boy take off his boot and stocking.

b) 1. It seemed that her dinner party went on too long to her, as it did to you. 2. It seemed that she sensed the purpose of his question. 3. It seemed that he did not notice that I was in outdoor clothes. 4. 'It seems that you know a lot of Robinson,' Tom Wells observed. 5. It was so wonderful to see old George. It seems he needs a friend.

c) 1. It appeared that George was talking to Mr Smiss persuasively. 2. 'I don't think you should blame yourself.' It appeared that the man had not heard. He went on as if in a daze. 3. When she passed by it appeared that they looked at her attentively. 4. It appeared that they were coming down when I left the room. 5. It appeared that he did not see at all why he should explain his disappearance.

d) 1. It was likely that he had hidden my journal under his mattress. 2. It was unlikely that she would come across him by accident. 3. It is quite likely that a motor containing two boys has been noticed. 4. It is unlikely that he will come and see us soon. 5. I think, it is likely Peter will make that mistake.

e) 1. It is believed that John has arrived in London. 2. It is known that Jack is good at painting. 3. It is reported that the spaceship has landed successfully. 4. It is believed he is clever. 5. They say that he is the best teacher at our school.

f) 1. It happened that his father came. It was raining and he had not been able to play golf, and he and Walter Fane had a long chat. 2. It happened that everybody had taken the problem seriously. 3. It happened that I saw them at the theatre. 4. It happened that I mentioned your brother's name. 5. It happened that I knew Eliza's brother well.



### **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 теста по темам 1.1-1.6 учебной программы;
- во втором семестре: выполнение теста по темам 1.7-1.11 учебной программы.

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 тестового задания.

Допуском к сдаче экзамена во втором семестре является успешное выполнение 2/3 тестового задания.

### **3.1.5. ИТОГОВЫЙ КОНТРОЛЬ**

Форма итогового контроля знаний студентов в 1, 2 семестре – **зачет**.

**Зачет состоит из:**

- обязательной зачетной лексико-грамматической контрольной работы или компьютерного тестирования;
- сдачи внеаудиторного чтения в полном объеме;
- работы в семестре, предусматривающей выполнение студентом всех требований к практическим занятиям.

Форма итогового контроля знаний студентов в 3 семестре – **экзамен**.

**Структура экзамена:**

1. Письменный перевод на русский язык отрывка текста экономического содержания со словарем. Объем текста – 1200–1400 печатных знаков. Время подготовки – 45 минут.
2. Передача содержания текста экономического содержания на иностранном языке (объем текста 1000–1200 п. зн.).
3. Монологическое высказывание по одной из тем социально-культурного и бытового общения за весь курс обучения.

2 семестр заканчивается написанием лексико-грамматической контрольной работы и итогового компьютерного теста по пройденным темам за весь курс обучения.

На зачете и на экзамене проверяется практическое владение иностранным языком в объеме требований программы по каждому этапу обучения. Курсовая работа учебным планом не предусмотрена.

## 3.2. ТЕСТЫ И КОНТРОЛЬНЫЕ РАБОТЫ

### 3.2.1. АНГЛИЙСКИЙ ЯЗЫК

#### 1. Complete the sentences with appropriate words or phrases from the box.

<i>social skills</i>	<i>obligatory</i>	<i>a "red certificate"</i>	<i>basic mathematics</i>
<i>general</i>	<i>free of charge</i>	<i>pre-school</i>	<i>scholarships</i>
<i>stimulate</i>	<i>full-time</i>	<i>higher education</i>	<i>future profession</i>

- 1) The system of education in Belarus starts with the \_\_\_\_\_ education.
- 2) Children who attend kindergarten learn \_\_\_\_\_ when they play with other children.
- 3) Children are taught pre-reading and pre-writing as well as \_\_\_\_\_.
- 4) The public nurseries and kindergartens are \_\_\_\_\_.
- 5) \_\_\_\_\_ secondary education in Belarus starts at the age of 6.
- 6) Pupils study \_\_\_\_\_ subjects like maths, biology, physics.
- 7) Secondary basic school helps pupils define their \_\_\_\_\_.
- 8) \_\_\_\_\_ are awarded to very gifted students.
- 9) The system of \_\_\_\_\_ consists of universities, academies, and institutes.
- 10) Students who graduate with honors are awarded \_\_\_\_\_.
- 11) Two-thirds of all students choose \_\_\_\_\_ education.
- 12) All types of educational establishments \_\_\_\_\_ effectiveness of education.

#### 2. Complete the sentences with correct prepositions.

- 1) General secondary education in Belarus starts \_\_\_\_\_ the age of 6.
- 2) The system of education in Belarus starts \_\_\_\_\_ the preschool education.
- 3) Children are given knowledge \_\_\_\_\_ maths, nature studies and music.
- 4) Around 70% of children attend nursery or kindergarten \_\_\_\_\_ they go to school.
- 5) The Belarusian policy for higher education is mainly based \_\_\_\_\_ state laws.
- 6) The certificate of secondary education enables young people to continue their education \_\_\_\_\_ the university level.
- 7) Kindergartens are for children \_\_\_\_\_ six years.
- 8) The educational policy in the Republic of Belarus guarantees equal access \_\_\_\_\_ all educational stages.
- 9) On graduating \_\_\_\_\_ basic school, young people have the opportunity to continue their education.
- 10) Universities and academies are engaged \_\_\_\_\_ fundamental research.

#### 3. Complete the sentences choosing a suitable infinitive phrase from the following list:

*when to come, how to phrase, how to keep, how to handle, what to do, which to choose, where to put, whether to stay here or go back, where to go, what to say*

1. He asked his mother ... back. 2. We know ... snow and ice; we live with it. 3. There were a lot of books on the shelves. We did not know ... . 4. We were not sure ... . 5. Show me please ... . 6. I did not know ... the baby warm. 7. She did not ... . Her head swam and she was afraid she was going to faint. 8. I was helping her to put away the clean linen. She

was telling me ... it. 9. He did not know ... his faith in her. 10. I'm so bewildered, I don't know ... .

### 3.3. КРИТЕРИИ ОЦЕНИВАНИЯ РАБОТЫ СТУДЕНТОВ

#### 1. Оценка перевода.

Уровни	Баллы	Чтение
I. Низкий (рецептивный)	0	Отсутствие перевода или отказ от него
	1	Перевод текста на уровне отдельных словосочетаний и предложений при проявлении усилий и мотивации.
	2	Неполный перевод текста (менее 90 %). Допускаются грубые искажения в передаче содержания. Отсутствует правильная передача характерных особенностей стиля переводимого текста.
II. Удовлетворительный (рецептивно-репродуктивный)	3	Неполный перевод (90 %). Допускаются грубые смысловые и терминологические искажения. Нарушается правильность передачи характерных особенностей стиля переводимого текста.
	4	Полный перевод. Допускаются грубые терминологические искажения. Нарушается правильность передачи характерных особенностей стиля переводимого текста.
III. Средний (репродуктивно-продуктивный)	5	Полный перевод. Допускаются незначительные искажения смысла и терминологии. Не нарушается правильность передачи стиля переводимого текста.
	6	Полный перевод. Отсутствуют смысловые искажения. Допускаются незначительные терминологические искажения. Нарушается правильность передачи характерных особенностей стиля переводимого текста
IV. Достаточный (продуктивный)	7	Полный перевод. Соблюдается точность передачи содержания. Отсутствуют терминологические искажения. Допускаются незначительные нарушения характерных особенностей стиля переводимого текста.
	8	Полный перевод. Отсутствуют смысловые и терминологические искажения. В основном соблюдается правильная передача характерных особенностей стиля переводимого текста.
V. Высокий (продуктивный, творческий)	9	Полный перевод. Отсутствуют смысловые и терминологические искажения. Правильная передача характерных особенностей стиля переводимого текста.
	10	Полный перевод. Отсутствуют смысловые и терминологические искажения. Творческий подход к передаче характерных особенностей стиля переводимого текста.

#### 2. Оценка понимания при чтении. Показатели оценки чтения.

Уровни	Балл	Чтение
I. Низкий (рецептивный)	0	Отсутствие ответа или отказ от ответа.
	1	Понимание менее 30% основных фактов и смысловых связей между ними.

II. Удовлетворительный (рецептивно-репродуктивный)	2	Понимание 30% основных фактов и смысловых связей между ними.
	3	Понимание менее 50% основных фактов и смысловых связей между ними.
III. Средний (репродуктивно-продуктивный)	4	Понимание 50% основных фактов текста и смысловых связей между ними.
	5	Понимание большинства основных фактов текста, смысловых связей между ними и отдельных деталей текста.
IV. Достаточный (продуктивный)	6	Понимание всех основных фактов текста, смысловых связей между ними и 50% деталей текста.
	7	Понимание всех основных фактов текста, смысловых связей между ними и 70% деталей текста.
V. Высокий (продуктивный, творческий)	8	Понимание всех основных фактов текста, смысловых связей между ними и 80% деталей текста.
	9	Понимание всех основных фактов текста, смысловых связей между ними и 90% деталей текста.
	10	100-процентное понимание основных фактов текста, смысловых связей между ними и деталей текста.

### **3. Оценка письменных текстов.**

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 баллов 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

#### 4.1.1. АНГЛИЙСКИЙ ЯЗЫК

##### ENGLISH VOCABULARY FOR ROAD BUILDING

### А

abandon покидать, оставлять; прекращать (что-л., делать что-л.); сдавать, оставлять  
Achaemenid [ækémmənid]ancient Persian ruler: a member of a dynasty that ruled in ancient Persia from 553-331 BC  
accesscontrol управление доступом  
adept знаток, эксперт, специалист  
agger насыпь, холм, курган, крепостной вал в Древнем Риме  
alignment выравнивание, регулировка, *топогр.* визирование через несколько точек  
alpaca альпака, шерсть альпаки; ткань из шерсти альпаки  
amountto достигать, составлять, равняться, быть эквивалентным  
arterialroad автомагистраль, автострада  
ascend всходить, взбираться (о человеке, животном); подниматься  
ascent восхождение, подъем  
ash зола, пепел  
autobahn автострада, автомагистраль, скоростная автострада  
axle вал, ось, шпиндель

### В

backpacker человек с рюкзаком  
Bactrian бактриан, верблюд двугорбый  
binder связующее (вещество), связующий материал,  
bitumen битум; асфальт  
blight душная атмосфера; упадок, деградация  
blur замарать, запачкать; сделать неясным; затуманить; затемнить  
boardwalk деревянный тротуар; дощатая дорожка  
bollard столбик ограждения  
booth киоск; палатка; будка; кабина  
bump колдобина, выбоина  
bypass обходный путь, обходная дорога

### С

camber выпуклость; выступ; изгиб, кривизна, подъем (в мостах)  
car автомобиль, машина вагонетка, колесница  
carriageway проезжая часть дороги  
cart телега; повозка; подвода  
cartouche патронный ящик, картуш, орнаментальный, выступ, поясок (на капители)

causeway мощеная дорога, дамба (с проездом по гребню); насыпная дорога (через низкое или болотистое место)  
central reservation разделительная полоса автострады  
chariot колесница  
clog засор; пробка; засорять(ся); закупоривать(ся); забивать(ся)  
coach коляска, карета (пассажирская или почтовая), экипаж  
cobblestone булыжный камень, булыжник; крупная галька  
coerce сдерживать, удерживать силой, заставлять, принуждать  
cohesion сцепление; сплоченность, сплочение  
conch моллюск, раковина моллюска  
congestion затор (уличного движения)  
contour очертание, контур; форма  
controversy дебаты, дискуссия, спор, разногласия, расхождение во мнениях  
conventional условный, обыкновенный, традиционный  
converge сходиться (о линиях, дорогах и т. п.); сводиться в одну точку (on); встречаться  
convex выпуклый, круглый  
cord веревка, шнур, связь (духовная, эмоциональная), узы, шнур, рубчик на материи  
corduroy бревенчатая дорога, строить бревенчатую мостовую, мостить бревнами  
corral загон, ферма (для скота)  
courier гонец, курьер, посыльный, рассыльный  
crash barrier барьер на автостраде, разделяющий полосы с противоположным направлением движения  
craze идея фикс, сходить с ума  
culvert водопропускная труба  
curb бордюрный камень; обочина (тротуара)

## **D**

deleterious вредный, вредоносный, опасный  
demonstrably очевидно, ясно, явно, наглядно  
designation обозначение, название, указание  
deteriorate ухудшать; портить; повреждать, распадаться, разрушаться  
disrepair ветхость; плохое состояние, неисправность  
ditch выемка, котлован, траншея, канава, ров, канал  
diverge расходиться (from), отходить; отклоняться; уклоняться (to)  
domestication приручение животных  
drain дренажная канава, дренажная труба; дренировать, осушать; дренаж; слив, сливать, спускать; канализационная труба  
driveway дорога, проезд, путь  
dromedary одногорбый верблюд  
dyke сточная канава, ров, дамба, плотина, запруда, перемычка

## **E**

easement rights право использования чужой территории для определенных целей (прокладка дорог, электричества, сквозной проезд и т.п.)  
emulsion эмульсия

equestrian всадник; наездник  
even плоский, ровный (о местности), четный

## **F**

facilitate облегчать; содействовать; способствовать  
fatigue усталость (металлов)  
ferry паром, переправа  
flank быть расположенным сбоку, располагаться по обе стороны  
fleamarket «блошиный рынок», барахолка  
flyover эстакада  
flyovercrossing пересечение дорог на разных уровнях  
foam пена, пениться; вспененный материал; пенопласт; пенобетон  
footpath тротуар, панель  
fossa впадина, котловина, яма  
franchise привилегия, лицензия на продажу товара в опред-ом районе, франчайзинг  
freeway автострада, многопутная дорога, автомагистраль  
frontage прилегающая территория - к проезжей части, улице, водоему и т.д.; граница земельного участка (по дороге, реке)

## **G**

gauge ж.-д. ширина колеи  
garrison гарнизон, размещать войска (в крепости, городе и т.п.) в целях защиты  
genteel благородный; благовоспитанный  
gig кабриолет; двуколка (двухколесный экипаж, запряженный одной лошадью)  
gilded позолоченный  
gorge горло, плотка, узкое ущелье, теснина  
gradeseparation развязка линий; пересечение в разных уровнях  
gradient отклонение, угол наклона  
graze пасти скот, использовать (земли) как пастбище  
grid решетка, сетка  
grout жидкий раствор  
guardrail перила, поручни  
gully канава; ров (образованный потоками воды); вымоина, размыв  
gutter канавка, вымоина; сточная канава; водосточный желоб  
gyratory вращательный

## **H**

hairpin шпилька (узкий поворот дороги на 180 градусов)  
heel каблук  
herringbone елочный, шевронный  
heyday зенит, расцвет, лучшая пора  
honeycomb пористая (ячеистая) структура; пористый, ячеистый  
hydroplaning глиссирование, глиссирование колес

## **I**



impetus движущая сила; стимул, импульс, толчок (to - к какому-л. действию)  
Indus река. Инд  
interchange (транспортное) пересечение  
interchange point (дорожная) развязка  
intermittent перемежающийся; скачкообразный; прерывистый  
itinerary курс, маршрут, путь, схема  
intrinsic присущий, свойственный, важный, значительный, существенный

## J

jerky вяленое мясо  
junk кабель, канат  
junction пересечение дорог, перекресток

## L

lane трасса для движения транспортных средств  
largesse щедрый дар, вознаграждение  
limabean лима, лимская фасоль  
lime известь  
livestock крупный рогатый скот  
log бревно; колода  
lure соблазн; привлекательность, притягательность, соблазнительность

## M

macadam щебень, щебеночная дорога  
macadamize мостить щебнем  
mandatory обязательный, принудительный  
maritime морской  
marsh болото, топь  
mattock мотыга; киркомотыга  
median занимающий срединное положение, центральная полоса автострады  
median strip встречная полоса  
mitigation смягчение, уменьшение (вины, наказания); облегчение (боли, страдания)  
mortar известковый раствор; строительный раствор, скреплять известковым раствором  
motorway автострада, автомагистраль  
movable bridge разводной мост

## N

navel пуп, пупок, центр, середина (чего-л.)  
nomad кочевник  
Norse норвежский язык, скандинавы; норвежцы  
notch метка, показатель чего-л., выемка, зарубка; предел, уровень, граница

## О

oak дуб

occupancy заполнение; размещение; занятость; вместимость

odd нечетный, лишний

off-ramp наклонный съезд с автомагистрали

offshoot ответвление, отводок, боковой отросток

on-ramp наклонный въезд на автомагистраль

overpass эстакада; переезд; переход, путепровод

## Р

pace шаг; длина шага

parcel участок земли

parish приход (территория, находящаяся в ведении одного священника)

pastoral пастушеский, относящийся к пастухам

pavement *брит.* тротуар, *амер.* мостовая, дорожное покрытие, материал для мощения

paver камень, кирпич, брусчатка, гравий (материал для мощения); дорожный бетоноукладчик

peat торф

pier дамба, плотина, пирс, причал; поддерживающая, опорная конструкция, иногда служит для деления на секции, отсеки

piling забивка свай, свайное сооружение

plait коса (волос); плетение, складка, заплетать, плести, плиссировать

plaited rope плетеный канат

plough плуг, приборы и механизмы, использующие принцип действия плуга; напоминающие его по форме

plunge прыжок, ныряние, погружение (в воду или другую среду)

ply сгиб, складка, слой, прядь (троса), оборот, петля, виток (веревки и т. п.)

Portland cement портланд-цемент

prerequisite необходимый как условие

pylon опора, пилон; столб, стойка

## Q

quarry каменоломня, открытая разработка, карьер

quicklime негашеная известь

## R

radius радиус

ramp наклонная дорога (особ. въезд на эстакаду или съезд с эстакады), пандус

rebar арматурная сталь; арматурный прут; арматурный профиль (для железобетона)

reinforce усиливать; армировать

rejuvenate восстанавливать, ремонтировать, реконструировать

relay получать замену, сменять (лошадей), передавать, транслировать

relegate направлять, отсылать (to - куда-л.); переводить в низший разряд, класс; низводить  
reservation резервирование, бронирование; фиксированное распределение, бронь  
retrofit модифицировать, настраивать, подгонять, реконструировать  
retroreflector ретрорефлектор, световозвращающий отражатель  
reversiblelane полоса дороги с реверсивным движением  
ridge гребень горы, горный хребет, горная цепь  
rig устройство; установка; тягач (автомобиль или трактор); пожарный автомобиль  
right-of-way право прохода/проезда через чужую землю, полоса отчуждения  
rill ручеек; источник, родник, канавка  
ringroad кольцевая дорога, окружная дорог  
roadbed дорожное полотно  
rod ветка, прут, стержень, брус, рейка, мера длины (эквивалентна 5 с половиной ярдам)  
roller вращающийся цилиндр, ролик; вал;  
roundabout участок дороги с круговым движением, круговая односторонняя транспортная развязка  
trespass нарушение, посягательство, причинение вреда, нарушение владения  
rubble бут, бутовый камень, булыжник  
rumblestrip предохранительная полоса (в виде стиральной доски вдоль края проезжей части)  
rutпрокладыватьборозды

## S

sag провисать, обвисать; прогибаться  
sedentary сидячий; пребывающий на одном месте, оседлый  
segregation отделение, изоляция; отсоединение, сегрегация  
shockамер. амортизатор  
shoulder выступ, обочина (дороги)  
shunpiking езда по малозагруженной дороге  
sidewalk боковая дорожка, тротуар  
skid-resistance сопротивление заносу  
slab плита; лист, пластина  
slick гладкий; скользкий  
sliproad обходный путь, объезд (местного значения)  
slope наклон; уклон; угол уклона; откос  
slurry гидросмесь, жидкий цементный раствор; глинистая суспензия, жидкая глина  
spade лопата  
spring пружина, рессора  
stagnant стоячий (о воде); застойный, застоявшийся, инертный, вялый  
statutoryinstrument статут, акт делегированного законодательства  
steepgrade крутой склон, крутой подъем  
steer управлять, править рулем; рулевой механизм  
strand что-л., напоминающее прядь или сплетенные пряди, нитка бус, жемчуга и т. п., длинный локон, прядь волос; волосок  
subgradeдорожн. постель, основание; поверхность грунта (после окончания земляных работ), уровень грунта

suffice быть достаточным, хватать; удовлетворять (for)  
suspension подвес, подвеска, подвешенное состояние; взвесь  
swath полоса скошенной травы, прокос, ряд  
sway качать(ся), колебать(ся)

## T

tailgate задний борт (автомобиля), столкновение автомобилей, движущихся друг за другом  
tamp заполнять, набивать, трамбовать; уплотнять  
tar смола; деготь; гудрон  
tarmac дегтебетон, термакадам  
tensile растяжимый; эластичный  
thoroughfare главная артерия (города), главная дорога  
toll пошлина, сбор, плата  
trackway тропинка, дорога с колеями  
trail тропа, тропинка  
transit перевозка, доставка; транзит, транзитный; (маршрутный) теодолит  
transverseprofile поперечное сечение  
traverse пересекать, проходить, спускаться или подниматься зигзагообразно  
treacherous ненадежный; непрочный  
tread колея, ширина колеи; беговая дорожка, беговой слой  
trekking путешествовать (длительно, с трудностями) делать большой переход, пересекать (пустыню)  
trespass посягательство (на лицо, закон, права); нарушение (права)  
trumpet труба, трубка  
tyre колесный бандаж (металлический обод, надеваемый на колеса (деревянные, железнодорожные и т.д.)), шина; покрышка

## U

underpass проезд под полотном железной дороги, подземный ход; тоннель;

## V

verge край, грань, обочина дороги  
vessel корабль, судно, сосуд (для жидкости)  
viaduct виадук; путепровод  
villa вилла, загородный дом, особняк (в городе или пригороде), *др.-рим.* усадьба  
viscous вязкий, липкий, клейкий; густой, тягучий  
void пустота; полость; пора; карман (в породе); 3) междоузлие (в кристаллической решетке)

## W

wayfarer путник, странник  
wheelchair кресло-коляска  
weighanchor сниматься с якоря

wetland заболоченная территория

wheelright колесник

woven плетеный, сотканный, тканевый, тканый

**Y**

yield уступать, пропускать

### **Abbreviation**

*Quipu (noun) A contrivance employed by the ancient Peruvians, Mexicans, etc., as a substitute for writing and figures, consisting of a main cord, from which hung at certain distances smaller cords of various colors, each having a special meaning, as silver, gold, corn, soldiers. etc. Single, double, and triple knots were tied in the smaller cords, representing definite numbers. It was chiefly used for arithmetical purposes, and to register important facts and events.*

## 4.2. УЧЕБНАЯ ПРОГРАММА ДИСЦИПЛИНЫ

### 4.2.1. АНГЛИЙСКИЙ ЯЗЫК

Р-1 2023

Учреждение образования  
«Брестский государственный технический университет»

УТВЕРЖДАЮ

Первый проректор БрГТУ

М.В.Нерода

23.06 2023

Регистрационный № УД- 23-1-019 /уч.

Иностранный язык (английский)

Учебная программа учреждения высшего образования по учебной дисциплине  
для специальностей:

- А 7-07-0731-01 Архитектура (Ф)
- АФ 7-07-0731-02 Архитектурный дизайн (Ф)
- Н 6-05-0732-02 Экспертиза и управление недвижимостью (Ф)
- Ф 7-07-0732-01 Строительство зданий и сооружений (профилизация –  
Автомобильные дороги) (Ф)
- ФТ 7-07-0732-01 Строительство зданий и сооружений (профилизация –  
Производство строительных изделий и конструкций) (Ф)
- П 7-07-0732-01 Строительство зданий и сооружений (профилизация –  
Промышленное и гражданское строительство) (Ф), (З), (Зс)

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:**

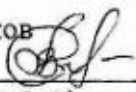
Боровикова Н.А., старший преподаватель кафедры иностранных языков, магистр педагогических наук;

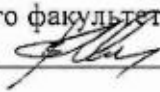
Войтович К.А., старший преподаватель кафедры иностранных языков, магистр филологических наук;

Гайдук И.И., старший преподаватель кафедры иностранных языков, магистр педагогических наук.


Куличик Н.С., преподаватель кафедры иностранных языков.

**РЕКОМЕНДОВАНА К УТВЕРЖДЕНИЮ:**

Кафедрой иностранных языков  
Заведующий кафедрой  В.И.Рахуба  
(протокол № 10 от 03.05.2023);

Методической комиссией строительного факультета  
Председатель методической комиссии  В.И.Юськович  
(протокол № 06 от 31.05.2023);

Научно-методическим советом БрГТУ  
(протокол № 6 от 23.06.2023);

*Специальность по ОУП формируется ЮИ* 

## 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, учебно-познавательной компетенций.

Языковая компетенция – совокупность языковых средств.

Речевая компетенция – совокупность навыков и умений речевой деятельности (говорение, письмо, аудирование, чтение), знание норм речевого поведения, способность использовать языковые средства в связной речи в соответствии с ситуацией общения.

Социокультурная компетенция – совокупность знаний о национально-культурной специфике стран изучаемого языка и связанных с этим умений корректно строить свое речевое и неречевое поведение.

Компенсаторная компетенция – совокупность умений использовать дополнительные вербальные средства и невербальные способы решения коммуникативных задач в условиях дефицита имеющихся языковых средств.

Учебно-познавательная компетенция – совокупность общих и специальных учебных умений, необходимых для осуществления самостоятельной деятельности по овладению иностранным языком.

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 специальности (направления специальности)	Наименование специальности (направления специальности)	Курс	Семестр	Всего учебных часов	Количество зачетных единиц	Аудиторных часов (в соответствии с учебным планом УВО)					Академических часов на курсовой проект (работу)	Форма текущей аттестации
						Всего	Лекции	Лабораторные занятия	Практические занятия	Семинары		
7-07-0731-01	Архитектура	1	2	120	3	68	–	–	68	–	–	зачет
		2	3	72	2	30	–	–	30	–	–	зачет
7-07-0731-02	Архитектурный дизайн	1	1	120	3	68	–	–	68	–	–	зачет
		1	2	72	2	34	–	–	34	–	–	экзамен
	Экспертиза и управление недвижимостью	1	1	110	3	50	–	–	50	–	–	зачет
6-05-0732-02		1	2	110	3	50	–	–	50	–	–	экзамен
7-07-0732-01	Строительство зданий и сооружений (профилизация – Автомобильные дороги)	1	1	100	3	50	–	–	50	–	–	зачет
		1	2	100	3	50	–	–	50	–	–	экзамен
7-07-0732-01	Строительство зданий и	1	1	100	3	50	–	–	50	–	–	зачет

7-07-0732-01	сооружений (профилизация – Производство строительных изделий и конструкций)	1	2	100	3	50	–	–	50	–	–	экзамен
	Строительство зданий и сооружений (профилизация	1	1	100	3	50	–	–	50	–	–	зачет
	– Промышленное и гражданское строительство)	1	2	100	3	50	–	–	50	–	–	экзамен

План учебной дисциплины для заочной формы получения  
высшего образования

Код специальности (направления специальности)	Наименование специальности (направления специальности)	Курс	Семестр	Всего учебных часов	Количество зачетных единиц	Аудиторных часов (в соответствии с учебным планом УВО)					часов на курсовой	Форма текущей аттестации
						Всего	Лекции	Лабораторные занятия	Практические занятия	Семинары		
7-07-0732-01	Строительство зданий и сооружений (профилизация –	1	1	100	3	10	–	–	10	–	–	зачет
	Промышленное и гражданское строительство)	1	2	100	3	10	–	–	10	–	–	экзамен

План учебной дисциплины для заочной формы получения высшего образования, интегрированного со средним специальным образованием

Код специальности (направления специальности)	Наименование специальности (направления специальности)	Курс	Семестр	Всего учебных часов	Количество зачетных единиц	Аудиторных часов (в соответствии с учебным планом УВО)					часов на курсовой	Форма текущей аттестации
						Всего	Лекции	Лабораторные занятия	Практические занятия	Семинары		
7-07-0732-01	Строительство зданий и	1	1	100	3	10	–	–	10	–	–	зачет

сооружений (профилизация – Промышленное и гражданское строительство)	1	2	100	3	10	–	–	10	–	–	экзамен
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## 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.

ТЕМА 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.

ТЕМА 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**

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
1	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. Ознакомительное чтение: 1) Английские университеты. 2) Оксфорд и			10		6	Фронтальный/индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги).

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
1.3	Кембридж. 3) Высшее образование в Великобритании. Беседа по УТ «БрГТУ в системе высшего образования Беларуси». 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».			10		10	Фронтальный/индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги).
2	Модуль профессионального общения.						

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
2.1	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».			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.			10		4	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы).

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	Ознакомительное чтение: Жилищная архитектура. 3-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.			16		22	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.			14		20	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы).

**2.2. УЧЕБНО-МЕТОДИЧЕСКАЯ КАРТА УЧЕБНОЙ ДИСЦИПЛИНЫ**  
**для дневной формы получения высшего образования для специальности:**  
**7-07-0731-02 АРХИТЕКТУРНЫЙ ДИЗАЙН**

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	1-й семестр						
1	Модуль социально-бытового и социокультурного общения.			8		6	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги).
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			10		6	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги).



Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	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».			10		10	Фронтальный/индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги).

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
2	Модуль профессионального общения.						
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».			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.			10		4	Фронтальный/индивидуальный опрос. Выполнение

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	Грамматический материал: глагол: согласование времен. Ознакомительное чтение: Жилищная архитектура.						упражнений (перевод, ответы на вопросы).
2.4	2-й семестр 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**

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
1	1-й семестр 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, множественное число имён существительных, притяжательный падеж; артикль; артикль с именами собственными.			8		12	Фронтальный/индивидуальный 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,			10		14	Фронтальный/индивидуальный опрос. Выполнение упражнений (лексико-грамматические, перевод, ответы на вопросы, пересказ, диалоги). Беседа по теме.

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
1.3	some/any/no; имя числительное. 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.						
2.1	Моя специальность и ее значение для экономического развития Республики Беларусь: Изучающее			10		12	Фронтальный/индивидуальный опрос. Выполнение

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	<p>чтение: 1) Профессия инженера. 2) Занятость в строительной отрасли.</p> <p>Ознакомительное чтение: 1) Будущее инженерной профессии. 2) Инженерное проектирование зданий.</p> <p>Грамматика: видо-временные формы глагола, времена группы Indefinite, Continuous, Perfect и Perfect Continuous действительного залога; типы вопросов.</p>						упражнений (лексико-грамматические, перевод, ответы на вопросы, пересказ, диалоги). Беседа по теме.
	2-й семестр						
2.2	<p>Строительные материалы: Изучающее чтение: 1) Материалы, используемые в строительстве. 2) Инженерные материалы. 3) Бетон. 4) Современные металлы. 5) Пластик.</p> <p>Ознакомительное чтение: 1) Эпоха пластика. 2) Цветные металлы. 3) Кирпич.</p> <p>Грамматика: видо-временные формы глагола, времена группы Indefinite, Continuous и Perfect страдательного залога; особенности перевода пассивных конструкций на русский язык.</p>			16		14	Фронтальный/индивидуальный опрос. Выполнение упражнений (лексико-грамматические, перевод, ответы на вопросы, пересказ, диалоги). Беседа по теме.
2.3	<p>Строительство: Изучающее чтение: 1) Стили</p>			16		16	Фронтальный/индивидуальный

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	<p>строительства.</p> <p>2) Конструктивные системы.</p> <p>3) Проектирование зданий.</p> <p>4) Фундамент.</p> <p>Ознакомительное чтение: 1) Здания и жилые дома. 2) Нанотехнологии и строительство. 3) Каркасное строительство. 4) Фундамент жилых и промышленных зданий.</p> <p>Грамматика: условные предложения I, II, III, смешанного типов.</p>						<p>опрос.</p> <p>Выполнение упражнений (лексико-грамматические, перевод, ответы на вопросы, пересказ, диалоги). Беседа по теме.</p>
2.4	<p>Архитектура:</p> <p>Изучающее чтение: 1) Из истории строительства.</p> <p>2) Архитектура: формы и функции.</p> <p>Ознакомительное чтение: 1) Что подразумевается под биоклиматической архитектурой. 2) Дом. 3) Из истории человеческого жилища. 4) Представления о современной архитектуре.</p> <p>Грамматика: модальные глаголы.</p>			12		14	<p>Фронтальный/индивидуальный опрос.</p> <p>Выполнение упражнений (лексико-грамматические, перевод, ответы на вопросы, пересказ, диалоги). Беседа по теме.</p>
2.5	<p>Обследование:</p> <p>Изучающее чтение: 1) Геодезические методы.</p> <p>Ознакомительное чтение: 1) Геодезическая съёмка. 2) Геодезическое</p>			6		16	<p>Фронтальный/индивидуальный опрос.</p> <p>Выполнение упражнений (лексико-грамматические,</p>

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	оборудование. Грамматика: неличные формы глагола: инфинитив, герундий, причастие, особенности перевода на русский язык.						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)**

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	1-й семестр						
1	Модуль социально-бытового и социокультурного общения.						
1.1	Новый этап в моей жизни: Изучающее чтение: Студенческая			12		14	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на



Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	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).						вопросы, диалоги).
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.			12		12	Фронтальный/ индивидуальный 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.			12		12	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги). Монологическое высказывание.

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
1.4	<p>Ознакомительное чтение: Система образования в Великобритании. Грамматика: неличные формы глагола.</p> <p>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.</p>			14		12	<p>Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы, диалоги). Монологическое высказывание.</p>
2-й семестр							
2.1	<p>Модуль профессионального общения.</p> <p>Строительные материалы для строительства дорог: Изучающее чтение: 1) Типы и виды строительных материалов. 2) Асфальт. Качество асфальта. 3) Дорожное покрытие. Ознакомительное</p>			10		12	<p>Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы).</p>

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
2.2	<p>чтение: 1) Бетон совершенствует строительство дорог. 2) Качество тротуарных дорог.</p> <p>Грамматика: сослагательное наклонение.</p> <p>Из истории дорожного строительства:</p> <p>Изучающее чтение: 1) Дороги Древнего Рима и их виды. 2) Римские дороги в Британии.</p> <p>Ознакомительное чтение: 1) Система дорог инков. 2) Древний транспорт.</p> <p>Грамматика: союзы, предлоги места и времени, прямая и косвенная речь.</p>			8		10	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы).
2.3	<p>Виды дорог:</p> <p>Изучающее чтение: 1) Типы дорог. Шоссе. Автострада. 2) Автомагистраль. Дамба. 3) Пересечение дорог и перекрёстки.</p> <p>Ознакомительное чтение: 1) Скоростная автострада. 2) Городской транспорт.</p> <p>Грамматика: причастные</p>			12		10	Фронтальный/ индивидуальный опрос. Выполнение упражнений (перевод, ответы на вопросы).

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
2.4	и дееспричастные конструкции. 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 инженеры-строители прошлого. Грамматика: Условные предложения. Повторение и обобщение.			10		8	Фронтальный/индивидуальный 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)**

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
1	1-й семестр 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).			8		8	Устный опрос, выполнение упражнений, перевод с иностранного языка на русский язык.
1.2	БрГТУ в системе высшего образования Республики Беларусь: Изучающее чтение: БрГТУ: история, структура, специальности. Грамматика: наречия, глагол (страдательный залог).			10		10	Устный опрос, выполнение упражнений, упражнения на аудирование.
1.3	Республика Беларусь в современном мире: Изучающее чтение: Республика, в которой я живу. Ознакомительное			10		10	Устный опрос, выполнение упражнений, упражнения на аудирование.

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	чтение: Праздники в Беларуси. Грамматика: неличные формы глагола.						
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.			10		10	Фронтальный/индивидуальный опрос, выполнение упражнений (перевод, ответы на вопросы).
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. Ознакомительное чтение: Механические свойства строительных материалов. Грамматика: сослагательное наклонение. 2-й семестр			12		12	Фронтальный/индивидуальный опрос, выполнение упражнений (перевод, ответы на вопросы).
2.2	Цемент: Изучающее чтение: 1) Производство			8		6	Устный опрос, выполнение упражнений,

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
2.3	<p>цемента. 2) Виды цемента. Ознакомительное чтение: Основания, фундаменты. Грамматика: союзы, предлоги места и времени.</p> <p>Бетон: Изучающее чтение: 1) Виды бетона. 2) Требования к бетону. 3) Железобетон и железобетонные конструкции. Ознакомительное чтение: Транспортные механизмы. Грамматика: прямая и косвенная речь.</p>			12		12	<p>перевод с иностранного языка на русский язык.</p> <p>Фронтальный/индивидуальный опрос, выполнение упражнений (перевод, ответы на вопросы).</p>
2.4	<p>Методы строительства: Изучающее чтение: 1) Крупноблочное строительство. 2) Крупнопанельное строительство. 3) Каркасное строительство. Ознакомительное чтение: Современные методы строительства. Грамматика: причастные и деепричастные конструкции.</p>			10		12	<p>Устный опрос, выполнение упражнений, перевод с иностранного языка на русский язык.</p>
2.5	<p>Здание и его элементы: Изучающее чтение: 1) Здание и его элементы. 2) Требования к зданиям. 3) Типы зданий. 4) Жилые и промышленные здания. Ознакомительное</p>			10		10	<p>Фронтальный/индивидуальный опрос, выполнение упражнений (перевод, ответы на вопросы).</p>

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	чтение: Строительные коды. Грамматика: инфинитивные конструкции.						
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)**

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		



1	2	3	4	5	6	7	8
1	1-й семестр 1 Модуль социально-бытового и социокультурного общения.						
1.1	БрГТУ в системе высшего образования Республики Беларусь: Изучающее чтение: БрГТУ: история, структура, специальности. Грамматика: глагол (действительный залог во всех временных формах).			2		16	Устный опрос, выполнение упражнений, перевод с русского на английский язык, беседа по теме
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.			2		16	Устный опрос, выполнение упражнений, ответы на вопросы.
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	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:			2		20	Устный опрос,

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	Изучающее чтение: Производство цемента. Ознакомительное чтение: Основания, фундаменты. Грамматика: модальные глаголы. 2-й семестр						выполнение упражнений, перевод.
2.3	Бетон: Изучающее чтение: Виды бетона. Ознакомительное чтение: Требования к бетону. Грамматика: согласование времен.			2		22	Устный опрос, выполнение упражнений, беседа по теме
2.4	Методы строительства: Изучающее чтение: Современные методы строительства. Ознакомительное чтение: Крупнопанельное строительство. Грамматика: прямая и косвенная речь.			2		24	Устный опрос, выполнение упражнений, перевод
2.5	Здание и его элементы: Изучающее чтение: Здание и его элементы. Ознакомительное чтение: Типы зданий. Грамматика: предлоги места и времени.			2		24	Фронтальный/индивидуальный опрос, выполнение упражнений (перевод, ответы на вопросы).
2.6	Моя будущая специальность: Изучающее чтение: Моя будущая специальность.			4		20	Устный опрос, выполнение упражнений,

Номер раздела, темы	Название раздела, темы	Количество аудиторных часов				Количество часов самост. Работы	Форма контроля знаний
		Лекции	Лабораторные занятия	Практические занятия	Семинарские занятия		
1	2	3	4	5	6	7	8
	Ознакомительное чтение: Из истории строительства. Строительные профессии. Грамматика: типы вопросов.						контрольный перевод

### 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 Е. В. Road Building / Е. В. 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.

5. Гарагуля, С. И. Английский язык для студентов строительных специальностей: Learning Building Construction in English : учебное пособие / С. И. Гарагуля. – Изд. 2-е. – Ростов н/Д : Феникс, 2013. – 347 с.

6. Денисенко, Е. Н. Английский язык для архитекторов./ Е. Н. Денисенко. – Минск: «Лексис», 2002. – 239 с.

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 н/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.

10. Новик, Д. В. Методические рекомендации по развитию умений устной речи на английском языке для студентов I-II курсов технических специальностей / Д. В. Новик, И. И. Гайдук. – Брест : БрГТУ, 2016. – 34 с.

11. Орловская, И. В. Учебник английского языка для технических университетов и вузов : учебник / И. В. Орловская, Л. С. Самсонова, А. И. Скубрияева. – М. : Издательство МГТУ им. Н.Э. Баумана, 2008. – 447 с.

12. Поздняков, А. А. Англо-русский словарь по строительству и строительным технологиям / А. А. Поздняков, В. В. Быков – Москва : Русский язык : Медиа, 2008. – 867 с.

13. Полякова, Т. Ю. Английский язык для инженеров : учебное пособие / Т. Ю. Полякова, Е. В. Синявская. – М. : Высшая школа, 2004. – 463 с.

14. Рахуба, В. И. Практикум по грамматике английского языка / В. И. Рахуба. – Брест: БрГТУ, 2008. – 71 с.

15. Хведченя, Л. В. Грамматика английского языка : учеб. пособие / Л. В. Хведченя. – Минск: Изд-во Гревцова, 2011. – 480 с.

16. Cambridge Dictionary of English [Electronic resource]. – Mode of access: <https://dictionary.cambridge.org> – Date of access: 30.04.2023.

17. Evans, V. Career Paths: Architecture / V. Evans, J. Dooley, D. Cook. – Express Publishing, 2013. – 122 p.

18. BBC Learning English [Electronic resource]. – Mode of access: <https://www.bbc.co.uk/learningenglish> – Date of access: 30.04.2023.

19. Civil Engineering [Electronic resource]. – Mode of access: [https://en.wikipedia.org/wiki/Civil\\_engineering](https://en.wikipedia.org/wiki/Civil_engineering) – Date of access: 30.04.2023.

### 3.2. Перечень средств диагностики результатов учебной деятельности.

3.2.1. ДЛЯ СПЕЦИАЛЬНОСТЕЙ «АРХИТЕКТУРА», «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)» (дневная форма получения высшего образования):

ТЕКУЩИЙ КОНТРОЛЬ знаний осуществляется постоянно на всех практических занятиях. Для текущего контроля знаний студентам предлагаются следующие виды работ:

- опрос на занятиях;
- выполнение контрольных переводов;
- выполнение лексико-грамматических тестов при изучении лексико-грамматического материала.

ПРОМЕЖУТОЧНЫЙ КОНТРОЛЬ осуществляется:

1) по устным темам – в форме монологического высказывания, диалогов, беседы с преподавателем;

2) по текстам – в форме разработанных комплексных заданий, составления аннотаций и рефератов, выборочного письменного перевода;

3) по грамматике – в виде выполнения грамматических упражнений по изученным темам.

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 профессионально-ориентированного текста с иностранного языка на русский со словарём. Объём – 1300-1500 печатных знаков. Время выполнения – 45 минут.

2) реферирование аутентичного или частично адаптированного научно-популярного текста, беседа на иностранном языке по содержанию текста. Объём текста – 900 печатных знаков. Время подготовки – до 15 минут.

3) подготовленное высказывание по одной из изученных устных тем и неподготовленная беседа с преподавателем в рамках данной устной темы.

Устные темы для подготовленного высказывания:

1) Новый этап в моей жизни.

2) 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 лексико-грамматического материала.

ПРОМЕЖУТОЧНЫЙ КОНТРОЛЬ осуществляется:

1) по устным темам – в форме монологического высказывания, диалогов, беседы с преподавателем;

2) по текстам – в форме разработанных комплексных заданий, составления аннотаций и рефератов, выборочного письменного перевода;

3) по грамматике – в виде выполнения грамматических упражнений по изученным темам.

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 профессионально-ориентированного текста с иностранного языка на русский со словарём. Объём –

1300 печатных знаков. Время выполнения – 45 минут.

2) реферирование аутентичного или частично адаптированного научно-популярного текста, беседа на иностранном языке по содержанию текста. Объем 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 лексико-грамматических ошибок.

1 (балл) – перевод сделан на уровне отдельных слов и словосочетаний.

2) Передача содержания общенаучного текста на иностранном языке:

10 (баллов) – полное понимание содержания текста с передачей всех деталей смысловых связей в виде логически четко построенного сообщения.

9 (баллов) – полное понимание содержания текста с передачей всех деталей смысловых связей в виде недостаточно логически оформленного сообщения.

8 (баллов) – передача содержания текста с недостаточной полнотой.

7 (баллов) – передача содержания текста, содержащая 1-2 смысловые неточности.

6 (баллов) – передача содержания текста, содержащая 3-4 смысловые неточности.

5 (баллов) – ответ, отражающий содержание текста при наличии пропусков информации (не более 20%).

4 (балла) – ответ, отражающий содержание текста при наличии пропусков информации (не более 30%).

3 (балла) – понимание текста в общих чертах (60%).

2 (балла) – фрагментарное понимание содержания текста и неспособность изложить основную идею.

1 (балл) – полное непонимание текста.

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.

3.3.4. ДЛЯ СПЕЦИАЛЬНОСТЕЙ «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)» (дневная форма 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.

Список литературы для самостоятельной работы:

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**ПРОТОКОЛ СОГЛАСОВАНИЯ УЧЕБНОЙ ПРОГРАММЫ  
ПО ДИСЦИПЛИНЕ «ИНОСТРАННЫЙ ЯЗЫК (АНГЛИЙСКИЙ)»  
С ДРУГИМИ ДИСЦИПЛИНАМИ СПЕЦИАЛЬНОСТИ**

Название учебной дисциплины, с которой требуется согласование	Название кафедры	Предложения об изменениях в содержании учебной программы учреждения высшего образования по учебной дисциплине	Решение, принятое кафедрой, разработавшей учебную программу (с указанием даты и номера протокола)
Экономика строительства	Экономики и организации строительства		Рассмотрена и рекомендована к утверждению протокол № ____ от ____ . ____ . ____
Металлические конструкции	Строительных конструкций		Рассмотрена и рекомендована к утверждению протокол № ____ от ____ . ____ . ____
Железобетонные конструкции			Рассмотрена и рекомендована к утверждению протокол № ____ от ____ . ____ . ____
Технология строительного производства	Технологии строительного производства		Рассмотрена и рекомендована к утверждению протокол № ____ от ____ . ____ . ____
Технология возведения зданий			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

**ПРОТОКОЛ СОГЛАСОВАНИЯ УЧЕБНОЙ ПРОГРАММЫ  
ПО ДИСЦИПЛИНЕ «ИНОСТРАННЫЙ ЯЗЫК (АНГЛИЙСКИЙ)»  
С ДРУГИМИ ДИСЦИПЛИНАМИ СПЕЦИАЛЬНОСТИ**

Название учебной дисциплины, с которой требуется согласование	Название кафедры	Предложения об изменениях в содержании учебной программы учреждения высшего образования по учебной дисциплине	Решение, принятое кафедрой, разработавшей учебную программу (с указанием даты и номера протокола)
<p>Мосты и сооружения на дорогах</p> <p>Строительные конструкции транспортных сооружений</p>	<p>Геотехники и транспортных коммуникаций</p>		<p>Рассмотрена и рекомендована к утверждению протокол № ____ от ____ . ____ . ____</p>

Содержание учебной программы согласовано с выпускающей кафедрой

Заведующий выпускающей кафедрой  
кандидат технических наук, доцент



С.Н.Кандыбо

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 2024-2025 учебный год

№ п/п	Дополнения и изменения	Основание
	<p>Для всех специальностей дневной формы получения высшего образования:</p> <p>Внести в пп. 3.2.1 пункта 3.2 раздела 3 «Информационно-методическая часть» сведения о текущей и промежуточной аттестации (информация прилагается).</p> <p>Для специальности 7-07-0732-01 Строительство зданий и сооружений (<i>профилизация – Промышленное и гражданское строительство</i>) заочной формы получения высшего образования:</p> <p>Внести в пп. 3.2.2 пункта 3.2 раздела 3 «Информационно-методическая часть»: – текущая и промежуточная аттестации для данной</p>	<p>Постановление Министерства образования Республики Беларусь от 13.10.2023 № 319 «Правила проведения аттестации студентов, курсантов, слушателей при освоении содержания образовательных программ высшего образования»</p> <p>Постановление Министерства образования Республики Беларусь от 13.10.2023 № 319 «Правила проведения аттестации студентов, курсантов, слушателей при</p>

специальности не предусмотрены.

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 пп. 3.2.2 пункта 3.2 раздела 3 «Информационно-методическая часть»: – текущая и промежуточная аттестации для данной специальности не предусмотрены.

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);

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

освоении содержания образовательных программ высшего образования»  
Постановление Министерства образования Республики Беларусь от 13.10.2023 № 319 «Правила проведения аттестации студентов, курсантов, слушателей при освоении содержания образовательных программ высшего образования»

Набор студентов на новые специальности в 2024 году.



<p>7-07-0732-01 Строительство зданий и сооружений (профилизация – Промышленное и гражданское строительство).</p> <p>Для заочной формы получения высшего образования:</p> <p>Добавить в учебную программу следующую специальность:</p> <p>1) 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).</p>	<p>Набор студентов на новую специальность в 2024 году.</p>
<p>Для заочной формы получения высшего образования, интегрированного со средним специальным образованием:</p> <p>Добавить в учебную программу следующие специальности:</p> <p>1) 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);</p> <p>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).</p>	<p>Набор студентов на новые специальности в 2024 году.</p>

Заведующий кафедрой,  
кандидат филологических наук, доцент



В.И.Рахуба

УТВЕРЖДАЮ  
Декан строительного факультета  
кандидат технических наук, доцент



И.П.Павлова

Учебная программа пересмотрена и одобрена на заседании кафедры лингвистических дисциплин и межкультурных коммуникаций (протокол №8 от 26 апреля 2024 г.).

### 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).