# Учреждение образования «БЕЛОРУССКИЙ ГОСУДАРСТВЕННЫЙ ТЕХНОЛОГИЧЕСКИЙ УНИВЕРСИТЕТ»

Кафедра межкультурных коммуникаций и технического перевода

### АНГЛИЙСКИЙ ЯЗЫК

Учебно-методическое пособие с мультимедийными технологиями для студентов I курса всех специальностей

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#### Составители:

Ю. И. Давыденко, Е. В. Кривоносова, Т. М. Кривопуск, С. М. Рыбакова

#### Рецензенты:

кафедра лингвистических дисциплин и межкультурных коммуникаций УО «Международный государственный экологический институт имени А. Д. Сахарова» Белорусского государственного университета (заведующий кафедрой кандидат филологических наук Н. Н. Довгулевич); кандидат филологических наук, старший преподаватель кафедры профессиональной иноязычной подготовки УО «Барановичский государственный университет»

И. С. Криштоп

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Настоящее издание по английскому языку с мультимедийными технологиями состоит из четырех разделов, содержащих различные упражнения для совершенствования грамматических и лексических навыков. Подготовка презентаций по каждой теме способствует формированию и развитию коммуникативных навыков для участия в свободной дискуссии в пределах предложенной тематики. Пособие может использоваться как в аудиторной работе, так и для организации самостоятельной работы студентов.

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#### ПРЕДИСЛОВИЕ

Настоящее учебно-методическое пособие по английскому языку предназначено для студентов I курса всех специальностей.

Издание составлено в соответствии с требованиями программы по иностранным языкам для неязыковых вузов. Целью пособия является совершенствование навыков чтения, понимания и перевода, а также расширение кругозора студентов и развитие навыков устной речи в беседах по предложенным темам.

Материалом для данного издания послужили тексты из энциклопедий и справочников, а также учебных пособий для различных категорий учащихся.

Пособие состоит из четырех основных разделов, посвященных темам для обсуждения. В разделах представлены различные упражнения для совершенствования грамматических и лексических навыков. Упражнения тематически связаны с представленными текстами. Каждый раздел завершается итоговой мультимедийной презентацией.

Тексты упражнений могут быть использованы при составлении сообщений по заданной теме, а также для ведения бесед на английском языке. Упражнения составлены с учетом грамматики, предлагаемой для изучения и повторения.

Настоящее пособие может быть использовано как для аудиторной работы под руководством преподавателя, так и для самостоятельной работы студентов.

## **Unit 1 BELARUS**

#### I. Geographical Outline of the Republic of Belarus

### Exercise 1. Make sure you know the following words and expressions.

Watershed – водораздел, бассейн реки; border state государственная граница; picturesque – живописный, колоритный; invasion вторжение, нашествие; conqueror завоеватель, alien чуждый, несвойственный; победитель: favor благоприятствовать, способствовать; relief – рельеф, характер местности; hill – холм, возвышенность; marshy lowland – болотистая низменность; vegetation – растительность; deciduous – лиственный; coniferous – хвойный; primeval forest – первобытный лес; encompass – окружать, охватывать, заключать; reservation – заповедник; stream – ручей, небольшая речка; extinct – вымерший, прекративший существование; precipitation – осадки, выпадение осадков; latitude – широта; spruce – ель; hornbeam – граб; birch – береза; aurochs – зубр; elk – лось; deer – олень, лань; boar – дикий кабан.

### Exercise 2. Check the pronunciation of the following geographical names and words with your teacher or your dictionary.

The Baltic sea, the Black sea, Poland, Lithuania, Latvia, Russia, Ukraine, Western Europe, the Pripyat, the Dnieper, the Neman, the Berezina, the Western Dvina, poly-ethnic, poly-confessional, Hamburg, Germany, Dublin, Ireland.

#### Exercise 3. Read and translate the following text.

The Republic of Belarus is a young independent state. It appeared on the maps in 1991. The state is situated practically in the center of Europe on the watershed of the Baltic and Black seas. The capital of the Republic of Belarus is Minsk – one of the most interesting and beautiful cities in the world. It is the industrial, political and cultural center of the Republic. Belarus borders on Poland, Lithuania, Latvia, Russia and Ukraine. The total length of the state border makes up 2,969 km. It is the land of blue lakes and green forests,

of sunny meadows and cultivated fields, of picturesque villages and modern cities. Its beauty is modest, calm and serene but it remains in the memory.

During its history Belarus knew a lot wars and invasions but it was never a conqueror. Belarusians had to accept alien religion, culture and language but the country remained distinctive and original.

The territory of Belarus is 207.6 thousand kilometers. It stretches from west to east for 650 km and from north to south for 560 km. The shortest ways from Russia to Western Europe and from the Baltic Sea to the Black sea run through Belarus. Geographic and climatic conditions favor the development of transport and economic relations.

The country's relief is flat with hills. Much of the country consists of flat lowlands separated by low hills and uplands. The highest point, mount Dzerzhinskaya, is only 346 meters above the sea level, and more than the half of Belarus' territory lies below 200 meters. Lowlands are often marshy and contain many small lakes.

Forests constitute about one-third of the country's area. The natural vegetation of the country is mixed deciduous and coniferous forest. In the north, conifers, notably pine and spruce, tend to predominate; southward the proportion of deciduous trees, such as oak and hornbeam, increases. Birch is common everywhere.

The Belovezhskaya Pushcha is one of the largest surviving areas of primeval mixed forest in Europe, encompassing more than 1,200 square kilometers. Now it is a national park, reservation, home of the European bison (aurochs), elk, deer, boar and many other animals, birds and plants. Some of them are widespread, others have become extinct outside the borders of the national park.

There are more than 20 thousand rivers and streams in Belarus with the total length of 91 thousand kilometers, and about 11 thousand lakes. The largest lake is Naroch. The navigation is carried out on the rivers Pripyat, Dnieper, Neman, Berezina and Western Dvina.

The population of Belarus is about 9.5 million people. The official languages of the country are Belarusian and Russian. Belarus is a polyethnic and poly-confessional state. Ethnic Belarusians make up about four-fifths of the country's population. Russians form the second largest ethnic group. Then come Poles, Ukrainians, Jews, Latvians and Lithuanians. Representatives of more than 100 nationalities live in Belarus. More than 75% of the population resides in urban areas, with about 20% of the people concentrated in the capital, Minsk.

Belarus is located on the  $53^{\rm rd}$  latitude – roughly the same as Hamburg (Germany) or Dublin (Ireland). The climate of Belarus is moderately continental due to a strong influence of the maritime air of the Atlantic with mild and humid winter, warm summer and wet autumn. It can be cold from October to April. The average temperature in January is from – 4°C to – 8°C. July is the warmest month. The average temperature of July is +18°C. The precipitation level ranges from 530 to 700 mm.

Belarus is the country with beautiful nature and hospitable people, with unique history and rich cultural heritage. It is an interesting region from the tourist point of view.

#### Exercise 4. Answer the following questions.

1. Where is the Republic of Belarus situated? 2. What are the neighbors of the Republic of Belarus? 3. How long is the state border? 4. How large is the territory of the country? 5. What can you say about the relief? 6. What is the highest mount? 7. What can you say about the Belovezhskaya Pushcha? 8. How many lakes and rivers are there in Belarus? 9. The population of Belarus is about 10 million people, isn't it? 11. Why Belarus is a poly-ethnic and poly-confessional state? 12. How can you describe the climate of Belarus?

#### Exercise 5. Match the words to their definitions.

1. reservation	a) a group of people who have the same race, language or culture;
2. climate	b) a large area of land covered by trees and other plants;
3. widespread	c) the official line separating two countries or regions;
4. population	d) a reserve for animals or plants;
5. capital	e) the type of weather that a country or region
	has;
6. border	f) all the people who live in a particular area;
7. forest	g) very special, unusual or good;
8. language	h) the city where a country has its government;
9. nationality	i) happening or existing in many places;
10. unique	j) the method of human communication using spoken or written words.

### Exercise 6. Complete each sentence using a word derivationally related to the word given in brackets.

1. The Belarusians share a distinct ethnic (identify) and language.
2. The territory that is now Belarus changed hands (repeat). 3. Much of the history of Belarus is (separate) from that of its neighbors. 4. About one-fifth of the population of Belarus (resident) in Minsk. 5. This modern city was almost (entire) rebuilt after its near destruction in World War II.
6. The Pripyat Marshes (extension) southward into Ukraine. 7. There is (minimize) variation in the Pripyat Marshes relief. 8. The total (long) of the streams of Belarus is about 90,600 km. 9. Rivers are (general) frozen from December to late March. 10. Belarus has a cool (continent) climate.

### Exercise 7. Complete the sentences with the correct preposition. (at, about (2), before, for, in (9), of (8), to (2), -).

1. The accident ... the Chernobyl nuclear power plant ... Ukraine ... April 1986 resulted ... a number ... immediate and long-term consequences ... the environment ... Belarus. 2. ... the early 21<sup>st</sup> century ... one-fifth ... Belarus's land was still radioactively contaminated. 3. ... addition ... the land damage, the medical and psychological costs ... the accident included an increase ... cancer. 4. Environmental activists express concerns ... poor air quality and pollution ... Minsk and other major cities. 5. ... World War II Jews constituted the second largest group ... the republic. 6. Both Belarusian and Russian are official languages ... Belarus. 7. Belarusian is an Eastern Slavic language that is related ... both Russian and Ukrainian. 8. An older form ... Belarusian was the official language ... the grand duchy ... Lithuania. 9. Roman Catholics constitute ... the largest religious minority. 10. Roman Catholicism is particularly influential ... the western regions.

### Exercise 8. Read the text again and mark the sentences T (true), F (false), or DS (doesn't say).

- 1. The Republic of Belarus appeared on the maps in 1981.
- 2. Minsk is the industrial, political and cultural center of the Republic.
- 3. The largest lake is Naroch. 4. There are 6 regions in the country.
- 5. Birch is an extinct species. 6. The navigation is carried out on the rivers Volga, Dnieper, and Berezina. 7. About 7,000 Lithuanians reside in Belarus. 8. Ethnic Belarusians make up about 99% of the country's population. 9. The average temperature of July is +25°C. 10. Belarus is an interesting region from the tourist point of view.

### Exercise 9. Choose the answer (A, B, C, or D) that best fits each space.

1. Belarusians enjoy ... and political sovereignty. 2. The Mir Castle is ... in Grodno region. 3. The ... ways from Russia to Western Europe run through Belarus. 4. More than the half of Belarus' territory lies ... 200 meters. 5. The country's population is 2 times ... than in Finland. 6. The majority of the population is .... 7. The Belovezhskaya Pushcha ... a lot of rare animals and birds. 8. ... our efforts the results of work were unsatisfactory. 9. Two million people were ... affected by the radiation. 10. Belarus ... liberated from the German invaders in 1944.

	A	В	C	D
1	usefulness	unity	utility	usability
2	situate	situates	suitable	situated
3	shortest	shorter	short	less short
4	below	above	at	on
5	big	biggest	bigger	more big
6	Belarus	Belarusians	Belarus'	Belarusian
7	defends	shelters	secures	takes care
8	nevertheless	during	despite	however
9	heavily	hard	heavy	hardly
10	were	is	was	are

### Exercise 10. Use the correct form of the verb "to be" in the following sentences.

1. There ... many lakes in Belarus. 2. I hope that there ... a lot of warm days next summer. 3. There ... a terrible thunderstorm last night. 4. There ... one supermarket and several small shops near my house. 5. There ... two holidays last month. 6. There ... a lot of wars and invasions during the history of Belarus. 7. There ... no pupils in the classroom because it's Sunday. 8. There ... a lot of foreign tourists in the center of Minsk. 9. There ... no central heating in old wooden houses. 10. When I entered the hotel there ... only one man in the hall.

#### Exercise 11. Match the sentence halves.

- 1. By the size of its territory, the a) landscape with many lakes. Republic
- 2. The Belarusian territory in b) large unpopulated tracts of Europe forests.

- 3. Representatives of more than
- c) for cultivating potatoes, grains, sugar beets and flax.
- 4. The climatic conditions in Belarus are favorable
- d) common in summer.
- 5. Natural resources are
- e) for floating timber, shipping, and power generation.
- 6. Northern Belarus has hilly
- f) occupies the 13<sup>th</sup> place among the European countries.
- 7. Belarus's streams and lakes are used
- g) 100 nationalities live in Belarus.
- 8. Pushchas are
- h) potassium salts, dolomite limestone, peat and timber.
- 9. Average annual precipitation ranges
- i) from 550 to 700 millimeters.

10. Heavy rains are

j) is slightly smaller than that of Great Britain and Romania.

#### Exercise 12. Read the text and retell it.

The history of Minsk is a history of wars and destruction. It is astonishing and full of paradoxes. It is a history of a city, rising from ruins and ashes owing to the will and diligence of its citizens many times. The precise date of its foundation is unknown. It was firstly mentioned in the chronicles in 1067, which means that Minsk is older than such cities as Moscow and Stockholm. The city was mentioned in connection with the battle on the Nemiga river. So the first news about the existence of the city is connected with the disastrous events in its life.

In 1499 under the Magdeburg Law, the city was granted the right of self-government and land ownership, as well as certain privileges relating to crafts, commerce, and duties. After the Belarusian land was annexed by the Russian Empire, Minsk became a province center. By the middle of the 19<sup>th</sup> century the city began its development as an important industrial and transport center. In 1919, the city became the capital of the Belarusian People's Republic. During World War II, it was occupied by Nazi forces and suffered great damage. Its central part was actually raised to the ground and more than 80% of the dwelling houses were ruined. After the war the city was rebuilt. During its 950-year history, Minsk has survived through innumerable destructive battles, eight great wars, and five devastating fires. Minsk became the capital of independent Belarus in 1991.

Wars and foreign intervention caused great damage to the industrial and social infrastructure of the city. However, all this gave a new impulse to the social and political development of the city. Now it is the political, industrial, scientific and cultural center with the population of about 2 million people.

Many travelers believe that Minsk is the best example of Soviet planning. It is a vibrant cosmopolitan city with a clean and bright feel. Along with modern buildings, there are old churches and monuments. There is also the Trinity Suburb rebuilt in the 18<sup>th</sup>–19<sup>th</sup> century style with cafes, bars, restaurants, and tiny shops.

Minsk is famous for its great cultural traditions and as a major center of science and technology. It has a reputation for a welldeveloped industrial profile. This exciting city is a good place to live in and to visit.

The Troitskoye suburb is, perhaps, the most well-known part of the city. Frankly speaking, it cannot be called really historical – this is just a reconstruction of the 19<sup>th</sup> century buildings, but it is performed with such fantasy and love that no one can resist its fascination! Red tiled roofs, fairy-tale small houses, mysteriously tangled cobbled streets and comfortable yards – all this, mixed up with lots of pleasant cafes, restaurants and souvenir shops attract the citizens of Minsk and its guests to "Troika", as people get used to calling this place with sympathy. Nevertheless, Minsk, as any other city, is just streets, bridges and buildings, no matter how old or modern these streets are. The fascination of Minsk is in its special aura, which is noticed by all people coming here. Tranquility, tolerance and goodwill – these are the distinctive features of its people, transferred to their city. Guests, who come here for the first time, usually notice that they feel here as comfortable as at home.

One more tourist attraction of Minsk is the National Library of Belarus. Founded in 1922, it is a copyright library of the Republic of Belarus. It houses the largest collection of Belarusian printed materials and the third largest collection of books in Russian. It is now located in a new 72-meter high building in Minsk. The library's new building was designed by architects Mihail Vinogradov and Viktor Kramarenko and opened on June 16, 2006.

Serving as a functional library, the National Library is a city attraction. It is situated in the park on the river bank and has an observation deck looking over Minsk. The area in front of the library is used

for many public concerts and shows. A bronze sculpture of the printing pioneer Francisk Skorina has been placed in front of the building. The central entrance looks like an open book. The Library's interior uses works of modern Belarusian artists and sculptors for decoration.

#### II. Economy

### Exercise 1. Make sure you know the following words and expressions.

Diversified – многосторонний, многоотраслевой; backbone – основа, суть, позвоночник; attain – достигнуть, добиться; sustainable – устойчивый, рациональный; imply – значить, подразумевать, high-performance предполагать; высокоэффективный, высокопроизводительный; environment - окружающая среда; genпоколение, выработка; machine-tool building vehicle – станкостроение, heavy-duty большой автомобиль грузоподъемности; oil-refinery – нефтеперерабатывающий завод; potassium fertilizer – калийное удобрение; competitiveness – конкурентоспособность; fodder – фураж, корм для скота; gross domestic product – валовой внутренний продукт; account for – нести ответственность, составлять; currency – валюта, деньги; joint-stock company - акционерное общество; limited-liability company компания с ограниченной ответственностью; restock – пополнять запасы, снова наполнять; deposit - месторождение, вклад; essential – существенный, весьма важный; implement – выполнять, осуществлять.

### Exercise 2. Check the pronunciation of the following words and word combinations with your teacher or your dictionary.

Diversified, geographical location, enterprise, favorable environment, identify, machine-tool building, heavy-duty vehicles, oil-refinery, potassium fertilizer, industrialized, considerable, manufacturer, combine harvester, competitiveness, throughout, neighboring, employee, geological exploration, essential, maturity.

#### Exercise 3. Read and translate the following text.

The Republic of Belarus is a modern state with a high human development index and a diversified industrial profile. Due to attractive geographical location and highly developed scientific and technical po-

tential, Belarus is oriented to the production of ready-made items and is based on imports of raw material, fuel and energy resources. The industrial complex is the backbone of the production of Belarus. Since the late 1990s, Belarus has attained progress in economic reform and stabilization. In 2015, the Council of Ministers approved "The National Strategy for the Sustainable Social and Economic Development of Belarus" for the period until 2030. Aimed at ensuring high standards of living the strategy implies the transition to a high-performance economy based on knowledge and innovation, while maintaining a favorable environment for future generations.

The leading sectors of Belarusian industry are machine building and metalworking, machine-tool building, chemical and petrochemical industry, wood and wood processing industry, light and food industry. Heavy industry is well developed in Belarus. Heavy-duty vehicles, particularly trucks and tractors, are manufactured in Minsk, Zhodino, and Mogilyov.

About 100 major plants form the core of Belarusian industry. Among them are the Minsk Tractor Plant, the Minsk Automobile Plant, the "Atlant" freezer and refrigerator plant, the "Horizont" TV-set plant, oil-refineries in Novopolotsk and Mozyr, "Belaruskaliy" – the biggest producer of potassium fertilizers in the world. Many Belarusian enterprises are currently at the stage of modernization aimed at reducing energy consumption and installation of modern equipment.

Agro-industrial complex of Belarus specializes in animal farming (milk and meat products), in growing flax, potato, grain and vegetable crops, sugar beet, rapes and fodder crops. Agricultural production is highly industrialized and is based on the use of modern technology. The agro-industrial complex is oriented to the creation of multi-structural agriculture, combining different types of property and management: collective state-owned farms with individual private farming. Cattle, poultry, and pigs are the main livestock. Considerable areas of the swampy lowlands are used for fodder crops growing.

The vast Belarusian forests support a large lumber industry, contributing about one-third of the gross domestic product (GDP).

For several decades, Belarus has been one of the world's largest manufacturers. The country's share in the world production of the following products comprises: 17% of combine harvesters, 6% of tractors, 6.4% of flax fiber, 1.6% of potatoes, and up to 30% of mine dump trucks. Producing 1.4% of world milk bulk, Belarus holds about 5% in world exports of dairy products and about 11% of butter.

Belarus trades with more than 190 countries, its major trade partners being Russia, Ukraine, China, Great Britain, Germany, Poland, Lithuania, Italy, and Latvia. The Government takes measures to improve the competitiveness of Belarusian goods and to achieve their expansion to the Western market.

The republic has a well-developed transportation system. A vast railway network crisscrosses the country. There are also good road connections between the capital and all regional centers. Buses operate throughout the country. Minsk National Airport, opened in 1982, provides international service.

The service sector accounts for about two-fifths of GDP and employs the largest portion of the labor force. In the early 21<sup>st</sup> century, banking, communications, and real-estate industries experienced some of the highest rates of growth. Although the tourism industry is less developed in Belarus than in neighboring countries, the revenue derived from tourist activities increased dramatically in the early 21<sup>st</sup> century. The role of services is becoming increasingly larger.

Majority of the Belarusian labor force is employed in either services or manufacturing. Belarus has one of the highest percentages of women in the workforce of any country, and women occupy key roles in education, health care, communications, manufacturing and agricultural sectors. Most employees in Belarus are members of a trade union.

Independent Belarus restructured its post-Soviet banking system into a two-level system consisting of the National Bank of Belarus and a growing number of commercial banks, most of which are either joint-stock or limited-liability companies. The republic has its own currency, the Belarusian ruble. Securities market and stock exchange form part of the financial system of Belarus as well.

The Republic of Belarus does not have a massive mineral resource base, the country imports different kinds of fuels and raw materials required for its needs. Nevertheless, the geological exploration works held in the country constantly restock its mineral resources. About 5 thousand deposits representing about 30 types of minerals were identified and explored in Belarus. The most important resources include potash (potassium salts) and rock salts, oil, peat, construction materials and raw materials for their production, underground fresh and mineral water. Despite its own reserves, Belarus is unable to meet the demand for fuel resources from its own raw materials. The volume of oil production in the country amounts to only 12–13% of the demand. Nearly

all electricity is generated at thermal power stations using piped oil and natural gas; however, there is some local use of peat, and there are a number of low-capacity hydroelectric power plants. In the early 21<sup>st</sup> century Belarus began construction of its first nuclear power plant.

The IT sector is increasingly becoming an essential element in Belarus' economy. Over the past ten years, the exports of IT services have increased more than 50 times. In 2015, it reached USD 818 million. Today Belarusian companies working within the High-Tech Park (HTP) differ by the progressive management and the effectiveness of marketing decisions. The sphere is characterized by the client maturity, the complexity of the implemented projects, the global network of service delivery, the variety of products and services. The most successful HTP projects include the multiplayer online game and the development of the Viber software.

Information and communication technologies are also in the priority areas because they attract investments. The number of companies in Belarus, producing intelligent products, which are in demand around the world, is growing rapidly.

#### Exercise 4. Answer the following questions.

1. What can you say about the industrial complex of the Republic of Belarus? 2. What are the leading sectors of Belarusian industry? 3. Where are heavy-duty vehicles, particularly trucks and tractors, manufactured? 4. What are major Belarusian plants? 5. What is the specialization of agro-industrial complex of Belarus? 6. Considerable areas of the swampy lowlands are used for rice growing, aren't they? 7. What are the major trade partners of Belarus? 8. When did banking, communications, and real-estate industries experience some of the highest rates of growth? 9. What can you say about the Belarusian labor force? 10. How can you describe the Belarusian banking system? 11. What do you know about the mineral resource base of the Republic of Belarus? 12. Is all electricity generated at hydroelectric power plants? 13. What can you say about the IT sector of the Belarusian economy? 14. What are the most successful HTP projects?

#### Exercise 5. Match the words to their definitions.

- 1. economy a) land used for farming;
- 2. industry b) to pay someone regularly to do a job;
- 3. farmland c) to produce power;

4. manufacturer d) the production of goods, especially those made in factories:

5. livestock e) the total number of people who work in a particular company, industry or area;

6. to employ f) a station that produces electricity; 7. workforce g) animals that are kept on farms;

8. to generate h) the system by which a country's trade, industry and money are organized;

9. power plant i) money used in a way that may earn more money; 10. investment j) a person or company that manufactures a product.

### Exercise 6. Complete each sentence using a word derivationally related to the word given in brackets.

1. Due to objective (history) and (economy) conditions, Belarus maintains the most developed economic ties with the countries of the CIS, especially Russia. 2. The (agriculture) sector in Belarus (employee) about one-tenth of the labor force. 3. Nearly two-fifths of Belarus is covered by forests, which are exploited for the (produce) of wood and paper products. 4. Peat is (special) abundant in the Pripyat marshes. 5. (Process) of minerals plays an important role. 6. Some industries are small-scale, and their products are (most) for local (consume). 7. The price of previously (expensive) raw materials rose to meet the world market levels. 8. The (serve) sector employs the largest portion of the labor force. 9. In the early 21st century, Belarus's taxation system was (simple) to bring it more in line with European standards. 10. Russia is the most (signify) export partner of Belarus.

### Exercise 7. Complete the sentences with the correct preposition (among, by (2), for (2), in (4), of (8), since, to, with (2), -(2)).

1. Information technology (IT) is the application ... computers to store, study, retrieve, transmit, and manipulate data, or information, often ... the context ... a business or other enterprise. 2. The term IT is commonly used as a synonym ... computers and computer networks, but it also encompasses ... other information distribution technologies such as television and telephones. 3. Several industries are associated ... information technology. 4. Software development has existed ... the country ... 1998. 5. Experts predict an increase ... the number of companies ... foreign capital. 6. 80% ... the software produced ... the High-Tech Park

is exported. 7. The consumers ... software developed ... the residents ... the High-Tech Park are known global corporations. 8. Foreign companies enter ... the market ... buying Belarusian businesses. 9. Belarusian companies traditionally are ... the leading providers ... solutions ... business. 10. A lot ... benefits are provided ... the residents ... the Park.

### Exercise 8. Read the text again and mark the sentences T (true), F (false), or DS (doesn't say).

1. Belarus is oriented to the production of raw materials. 2. Heavy-duty vehicles are manufactured in Brest. 3. The country is a part of the CIS. 4. Agricultural production is based on the use of modern technology. 5. Men occupy key roles in the education and health care. 6. There are no railways in the country. 7. The banking system of Belarus has two levels. 8. Massive mineral resource base contributes to the economy of Belarus. 9. The Lithuanian government objected to the construction of the first Belarusian nuclear power plant. 10. The IT sector is increasingly becoming an essential element in Belarus' economy.

### Exercise 9. Choose the answer (A, B, C, or D) that best fits each space.

1. 240 million tons of peat are suitable for ... production. 2. The ... important resources include potash and rock salts. 3. Fuel ... resources of Belarus include oil, gas, peat and brown coal. 4. Potassium fertilizers ... exported to many countries of the world. 5. Clay is ... for the manufacture of coarse ceramics. 6. There are deposits of ferrous and ... metals in Belarus. 7. ... oil is burned at thermal power stations. 8. Deposits of ... shale are in the south of Belarus. 9. Belarus is an ... of dairy products. 10. Most ... in Belarus are members of a trade union.

	A	В	C	D
1	industrial	industry	industrialize	industrialized
2	strategy	strategic	strategically	strategist
3	minerals	mineral	mineralize	mineralogy
4	is	was	are	has
5	made	implemented	manufactured	used
6	in-ferrous	un-ferrous	im-ferrous	non-ferrous
7	piped	pipes	pipe	being piped
8	combustion	combustible	combustibility	combined
9	importer	imported	import	imports
10	employers	employs	employees	employ

#### Exercise 10. Fill in the blanks with "much, many, few, little, a few, a little".

1. At the beginning of September he knew only ... students in his group. 2. There are ... interesting stories in this book. 3. Don't be late! There is ... time left! 4. The rule was very difficult, so the teacher had to repeat it ... times. 5. ... sources of mineral water are found in Belarus. 6. There was ... water in the bottle. 7. Do you speak English? – Yes, ... 8. ... attention is paid to the development of IT industries. 9. ... students received excellent marks. 10. Doctors say that ... salt and sugar are harmful to our health.

#### Exercise 11. Match the sentence halves.

- 1. Peat in briquette form
- a) than 190 countries.
- 2. Soligorsk is the new mining b) amounted to 41.3 % of GDP. town
- 3. The Belovezhskaya Pushcha is c) and fertilizer-manufacturing one
  - center.
- 4. Today 49% of HTP residents d) is used as fuel. are
- 5. Belarus was the so-called
- e) of the most visited tourist destinations
- 6. In 2015 the industrial production
- f) "assembly plant" of the former USSR.
- 7. Belarus trades with more
- g) and meat production.
- 8. During World War II Belarus h) known all over the world. lost
- 9. Agriculture specializes in milk
- i) companies with Belarusian capital.
- 10. Belarusian goods are
- i) more than half of its national wealth

#### Exercise 12. Read the text and retell it.

Each region of Belarus has a free economic zone: Brest (1996), Gomel-Raton (1998), Minsk (1998), Vitebsk (1999), Mogilev (2002), Grodno-invest (2002).

Businesses operating in these zones enjoy a range of benefits including: 1) zero-rate tax on profit for a period of 5 years from the moment of declaring profit; afterwards the tax is calculated at the rate reduced by 50%; 2) 50% discount on VAT (value-added tax) on the products included in the list of import-substitution goods and sold on the territory of the Republic of Belarus; 3) zero property tax on buildings located on the territory of the free economic zones.

#### III. The Political System of the Republic of Belarus

### Exercise 1. Make sure you know the following words and expressions.

Ultimate – основной, окончательный; framework – структура, рамки; enumerate – перечислять; amend – вносить поправки, исправлять; personify – олицетворять, воплощать; guarantee – гарантировать, обеспечивать; binding force – обязательная сила; stipulate – обуславливать, предусматривать; issue – издавать, выпускать; edict – эдикт, указ; enactment – постановление, закон, указ; territorial integrity – территориальная целостность; supervise – наблюдать, руководить; anthem – гимн; rectangular – прямоугольный; flagpole – флагшток, древко флага; outline – очертание, контур; stork – аист; cornflower – василек; clover – клевер.

### Exercise 2. Check the pronunciation of the following words with your teacher or your dictionary.

Legislative, executive, judicial, government, constitution, personify, guarantee, sovereignty, security, execution, parliament, the National Assembly, the Council of the Republic, the House of Representatives, regulatory, rectangular, supervise, emphasize.

#### Exercise 3. Read and translate the following text.

The Constitution of the Republic of Belarus is the ultimate law of the country. Adopted in 1994, this formal document establishes the framework of the Belarusian state and government and enumerates the rights and freedoms of its citizens. The contents of the Constitution include the preamble, 9 sections, and 146 articles. The Constitution was amended twice: in 1996 and 2004.

The Constitution is based on the separation of legislative, executive, and judicial powers. Under the terms of the Constitution, the President, who is the head of the state, is popularly elected for a five-year term. The President appoints the prime minister who is the head of the government.

The President of the Republic of Belarus is the head of the state, guarantor of the Constitution and civil rights. According to the Constitution, the President personifies unity of the people, guarantees realization of internal and external policy of the state, and represents the Republic of Belarus in relations with other states and international organizations. The President secures sovereignty of the Republic of Belarus, its national security and territorial integrity, provides political and economic stability. The President issues edicts and decrees, which have the binding force on the whole territory of the Republic of Belarus. In cases stipulated by the Constitution, the President issues decrees having force of laws. Directly or through special bodies he provides the execution of decrees and edicts.

The National Assembly (the Parliament) consists of the Council of the Republic and the House of Representatives. The Council of the Republic is the House of territorial representation. Eight members of the Council of the Republic are elected in each region and in the city of Minsk at sittings of deputies. Eight members are appointed by the President. The House of Representatives consists of 110 deputies elected directly by the people. Members of the Council and the House serve four-year terms.

Judicial power is exercised by General Courts and by Economic Courts. The Constitutional Court controls correspondence of the laws with the Constitution.

The procurator-general supervises the precise and uniform execution of laws, decrees, and other regulatory enactments by all state government bodies, local soviets and other judicial and physical persons.

In line with Article 19 of the constitution of the Republic of Belarus, the symbols of the Republic of Belarus as a sovereign state are the National Flag, the National Emblem and the National Anthem.

The State Flag of the Republic of Belarus is a rectangular canvas made of two horizontal colored stripes. The upper one is red and makes up two thirds of the width while the lower one is green and as large as one third of the flag width. A vertical red-on-white Belarusian national pattern as large as one ninth of the flag length is located near the flagpole.

The State Emblem of the Republic of Belarus is made up of a green outline of the Republic of Belarus lit by the golden rays of the sun rising over the globe. A five-pointed red star is located at the top of the outline. The emblem is encircled by a wreath of golden wheat heads

intertwined with clover flowers on the right and flax flowers on the left. The wheat heads are embraced by a red-and-green ribbon with a golden inscription "Republic of Belarus".

The Republic of Belarus celebrates the state holiday of the Belarus State Flag and State Emblem Day on the second Sunday of May every year.

The State Anthem of the Republic of Belarus changed very little. It retains the musical basis of the anthem of the Belarusian Soviet Socialist Republic. The music by Nestor Sokolovsky has been popular and respected by generations of Belarusians; this is why it was decided to keep it when the anthem of the independent Belarus was created. The lyrics were written by Mikhail Klimkovich and Vladimir Korizna.

The words of the State Anthem reflect development of the Republic of Belarus as a sovereign and peace-loving country. They emphasize patriotism and brotherly relations between all nationalities that live in the country.

Other than the National Flag, Anthem and Emblem, Belarus has several unofficial symbols. The Cross of Saint Euphrosynia, a 12<sup>th</sup>-century relic disappeared during the Second World War, is considered to be a spiritual symbol of Belarus. The European bison is regarded as a symbol of Belarus and of the Belovezhskaya Pushcha. Other widely known symbols of Belarus are a white stork and a cornflower.

#### Exercise 4. Answer the following questions.

1. When was the Constitution of the Republic of Belarus adopted? 2. What is the structure of the Constitution? 3. What are the functions of the President of the Republic of Belarus? 4. What can you say about the National Assembly? 5. How many members are there at the Council of the Republic? 6. The House of Representatives consists of 200 deputies, doesn't it? 7. What do you know about the State Flag of the Republic of Belarus? 8. What can you say about the State Emblem of the Republic of Belarus? 9. Why did the music of the State Anthem change very little? 10. What unofficial symbols of Belarus can you name?

#### Exercise 5. Match the words to their definitions.

- 1. constitution
- a) the political leader of a country;
- 2. president
- b) the law-making body of a country;
- 3. parliament
- c) the main law of any country;

4. sovereignty d) the official song of a particular country; e) the right of a country to rule itself; 5. deputy f) an elected member of parliament; 6. edict 7. anthem g) an official order given by a government or person in authority; h) to choose someone to do a particular job; 8. supervise i) to choose someone by voting; 9. appoint 10. elect j) to be in charge of an activity or a place and to check that things are done correctly.

### Exercise 6. Complete each sentence using a word derivationally related to the word given in brackets.

1. Belarus (adoption) its first Constitution in 1919. 2. In the preamble of the Constitution, Belarus assumes the (responsible) for its destiny as a member of the (internationally) community. 3. The President must not be a member of a (policy) party when he assumes office. 4. The (Constitution) Court of the Republic of Belarus is the highest court in Belarus. 5. The Court that deals with (crime) law matters is the Supreme Court of Belarus. 6. Local (govern) are selected by the local population. 7. Belarus is a (rely) partner of the European Union. 8. There is mutually (advantage) (cooperate) between Russia and Belarus. 9. Our country maintains social and economic (stable) of the region. 10. Belarus supports further (integrate) with the CIS countries.

### Exercise 7. Complete the sentences with the correct preposition (by (4), in (4), for, into, of (5), on (2), since (2), with (2), up, -(2)).

1. The Constitution has been amended twice ... the original adoption, ... 1996 and ... 2004. 2. As a sovereign country, Belarus enjoys ... full rights and is active ... the foreign arena. 3. Belarus has signed many conventions ... co-operation ... other countries ... various fields. 4. The Belarusian people strengthen ties ... the people ... other countries. 5. The National flag has been ... use ... June 7, 1995. 6. Deputies are elected ... people ... four-year terms. 7. The Constitutional Court is made ... ... 12 judges, who serve ... 11-year terms. 8. The Republic ... Belarus is divided ... six administrative regions. 9. The Prime Minister is proposed ... the President and approved ... the Parliament. 10. Government powers are determined ... the Constitution ... the Republic ... Belarus.

### Exercise 8. Read the text again and mark the sentences T (true), F (false), or DS (doesn't say).

1. The Constitution of the Republic of Belarus enumerates the rights and freedoms of its citizens. 2. The Constitution was amended twice: in 1998 and in 2007. 3. The Constitution is based on the separation of legislative, executive, and judicial powers. 4. The structure and substance of the Constitution were influenced by constitutions of other countries. 5. The National Assembly consists of three houses. 6. The President supervises the precise and uniform execution of laws. 7. The exact color shades of the State Flag are not specified by the Constitution. 8. We can see wheat heads, clover and flax flowers on the State Emblem. 9. The lyrics of the State Anthem were written by Nestor Sokolovsky. 10. White birch and clover flower are unofficial symbols of Belarus.

### Exercise 9. Choose the answer (A, B, C, or D) that best fits each space.

1. The Constitution of the Republic of Belarus establishes the ... of the supremacy of law. 2. The Constitution ... the citizens of the Republic of Belarus the right to health protection. 3. The citizens have the right to ... security at old age. 4. The Constitution of Belarus proclaims that ... is equal before the law. 5. The current Constitution is the 5<sup>th</sup> Constitution in ... history. 6. Local Councils of Deputies make decisions on local issues ... the framework of national legislation. 7. The state symbols of Belarus changed ... throughout the 20<sup>th</sup> century. 8. Health treatment ... free in state institutions in Belarus. 9. Aurochs is seen as an ... symbol of Belarus.10. A ... Belarusian national pattern is located near the flagpole.

	A	В	C	D
1	principle	thought	idea	dream
2	proposes	speaks	explains	guarantees
3	society	socially	social	socialize
4	someone	anybody	everyone	no one
5	Byelorussian	Belarusian	Belarus	Belarusians
6	within	without	in	on
7	repeat	repeatedly	repeated	repetition
8	are	was	will be	is
9	unauthorized	private	unofficial	informal
10	red-on-white	white-on-red	red-on-red	red-on-green

#### Exercise 10. Fill in the blanks with "some, any, no" or their derivatives.

1. There is ... in this lecture-hall. 2. Have you invited ... to the party? 3. Has ... told you about the tickets to the theatre? 4. He brought ... books from the library, but he didn't read ... of them. 5. I can tell you ... about the life of this famous scientist. 6. Are there ... oranges in the fridge? – Yes, there are .... 7. Have you seen my glasses? I can't find them .... 8. It will be difficult to translate this text because we have brought ... dictionaries. 9. Where are you going this weekend? – ... I'll stay at home and just relax. 10. ... has broken my pen. Can you help me in ... way?

#### Exercise 11. Match the sentence halves.

- 1. Belarus is a part of
- 2. The Eurasian Economic Union b) Armenia, Belarus, Kazakhincludes
- 3. In 2010 Belarus joined
- 4. The contents of the Constitution d)
- 5. The only symbol that has e) include the preamble, nine changed
- 6. Belarus has several
- 7. The colors of the State Flag
- 8. Judicial power is exercised
- 9. The President secures
- 10. The Council of the Republic is

- a) unofficial symbols.
- stan, Kyrgyzstan, and Russia.
- c) sovereignty of the Republic of Belarus.
- the Common Economic Space.
- sections, and 146 articles.
- f) the House of territorial representation.
- g) the Commonwealth of Independent States.
- h) by General Courts and by **Economic Courts.**
- i) are red, green and white.
- i) very little is the State Anthem.

#### Exercise 12. Read the text and retell it. The United Nations Organization (UNO)

On 25<sup>th</sup> June 1945, 51 countries met in San Francisco to sign the Charter of the United Nations. Admission of Belarus, which at the time was not even an independent state, into the newly born global Organization, reflected international community's recognition of the role played by the people of Belarus in defeating fascism. The original 51 members have now become 189 and each state has one vote, no matter how small they are.

The UN doesn't have its own army. Instead, member states voluntarily supply troops and personnel. The first peace-keeping force was used in 1950, during the crisis in Korea. Since then the UN has been involved in about 40 peace missions, and has helped more than 30 million refugees. About 1,300 UN peacekeepers have died on duty. But keeping the peace is only a small part of United Nations' work. About 80% of their effort is devoted to developing countries to learn how to help themselves.

As a sovereign country, Belarus enjoys full rights and is active on the foreign arena. From the moment of setting up the United Nations Organization (UNO) Belarus as one of its constituent member states takes an active part in the work of this association, its organs and institutions. Belarus regularly sends its delegations to the sessions of the UNO General Assembly, has its permanent delegation and its own staff in it. Belarus is a member of some international specialized organizations, commissions, bureaus, funds and other organs.

On the initiative of Belarus the international organizations have adopted a number of important decisions, particularly on the punishment of war criminals, on education of youth in the spirit of ideas of peace and friendship among nations. Belarus has signed many treaties, agreements, protocols and conventions on co-operation with other countries in various fields. Together with representatives of other peace-loving countries the envoys of Belarus are struggling for implementing a policy that answers the basic interests of all nations of the world, for their peace and security, co-operation and friendship.

The Belarusian people strengthen and broaden its ties with the people of other countries. Its public organizations have established direct contacts and exchange delegations with their trade unions, youth, women's and sports organizations. The activities of the Belarusian Society for Friendship and Cultural Relations with foreign countries are fruitful. The society maintains contacts with many organizations of many countries.

Participation in the United Nations and its institutions and specialized agencies enables Belarus to more effectively pursue its foreign policy goals and modernize its economy. In economic terms, the Belarusian diplomacy is seeking to make effective use of United Nations immense capacities in support of country's overall internal development.

With the view to utilizing UN capacities for national humanitarian and social purposes, Belarus works in the active manner with a number of

relevant United Nations specialized organizations and institutions, like the International Labor Organization, the World Health Organization, the United Nations Office on Drugs and Crime, as well as with some others.

#### IV. Culture and Education

### Exercise 1. Make sure you know the following words and expressions.

Handicraft – ремесло, ручная работа; woodcarving – резьба по дереву; straw-plaiting – плетение из соломки; embroidery – dignified – достойный, вышивка, вышивание; обладающий чувством собственного достоинства; modest скромный, сдержанный; diligent – прилежный, усердный, старательный; eventempered – спокойный, уравновешенный, невозмутимый; extraordinary – выдающийся, незаурядный; contemporary – современный; participant – участник; performer – исполнитель; well-appreciated – высокоценимый, оцененный по достоинству; compulsory обязательный, принудительный; curriculum - курс обучения, учебный план; vocational school – профессионально-техническое училище, техникум; humanities – гуманитарные науки; ability – способность, умение; inclination – наклонность, склонность.

### Exercise 2. Check the pronunciation of the following words with your teacher or your dictionary.

Tradition, especially, ballet, handicraft, unique, woodcarving, decorative, straw-plaiting, embroidery, hospitable, dignified, modest, diligent, extraordinary, personality, theatrical, contemporary, chanson, enthusiastic, participant, performer, appreciate, compulsory, institution, curriculum, humanities, inclination, purpose.

#### Exercise 3. Read and translate the following text.

Belarusian national culture has a rich history and long tradition in every aspect of the arts, especially in literature and folk music, ballet and painting. The Belarusians preserve the charm of national handicraft, famous for woodcarving, straw-plaiting, embroidery. They create unique domestic decorative articles and national costumes.

The Belarusians have their own national character, customs and traditions. The Belarusians are trustful and optimistic, hospitable and kind, gifted and dignified, patient and modest. They are hard-working,

diligent and even-tempered. They respect freedom and independence and value old customs and traditions.

There are a lot of extraordinary and talented personalities, famous not only in our country but far beyond it. Such names as Yanka Kupala, Yakub Kolas, Vasil Bykov, Maksim Tank, Marc Chagall, Kazimir Malevitch, Svetlana Alexievich are loved and known all over the world.

Theatrical life of our country is rich and diverse. There are about 30 state theatres in Belarus now. The National Academic Opera and Ballet Theatre, the Yanka Kupala Belarusian State Academic Theatre as well as the Theatre of Musical Comedy in Minsk are well known and admired internationally. Different theatre festivals are held in Belarus every year.

The Belarusian nation is especially proud of its musical culture. Contemporary Belarusian musical art preserves national traditions as well as follows modern tendencies of the world musical movement. The Belarusian bands perform in all popular musical styles: classical and heavy rock, pop-rock, chanson, ethnic music, rap, blues, electronic music and others. Many musical forums are held in Belarus, for example Belarusian Musical Autumn, Minsk Spring, Golden Hit, jazz festivals and many others. Belarus has been an enthusiastic participant in the Eurovision Song Contest since 2004. The international annual festival of arts "Slavyansky Bazar" in Vitebsk has become the symbol of the festival movement of Belarus. Popular performers from Russia, Belarus and Ukraine, with guests from many other countries take part in the festival.

The Republic of Belarus has a well-developed educational system. Belarusian education is well-appreciated and valued in the world; so many foreign students want to receive training here. The educational system of the country is rather developed and comprises pre-school, school, vocational and higher education. Almost 70% of children attend nursery before going to school. This stage is not compulsory, but is recommended. School education starts at the age of six and lasts for nine years. This education is compulsory and children have to follow basic curriculum. When the secondary school is over, children receive a certificate of general education completion. At the age of 15 they are free to choose their further education. Some wish to serve in the military or join the workforce. Others continue studying at vocational schools or go for a higher education.

The demand for higher education remains high. State institutions are the centers both for education and for scientific research. Nowadays

in Belarus, 43 universities, academies and institutes provide training in various spheres of science and humanities. Most of them are state-owned. Many teenagers wish to continue studies after they finish school. To enter a university it is necessary to pass three centralized tests.

The main principles of the educational system in Belarus are the priority of human values, national culture as the basis of education, humanism, sense of ecological purpose, scientific basis, democracy and support of gifted children.

The republic has reformed its system of education with the aim of creating an independent, qualitatively new national school, corresponding to international standards and ensuring each citizen the right to the high-quality education according to their abilities and inclinations.

The most prestigious universities include the Belarusian State University (1921), the Belarus State Economic University (1933), the Minsk State Linguistic University (1948), the Belarusian Agricultural Academy (1848) in Gorki and many others. The National Academy of Sciences of Belarus (1929) is one of the largest centers of science in our country. Its research-institutes work on various important problems in such fields as mathematics, optics, genetics, biology, etc.

#### Exercise 4. Answer the following questions.

1. How can you describe Belarusian national culture? 2. What can you say about the character of the Belarusians? 3. What famous Belarusian people do you know? 4. How many theatres are there in Belarus? 5. The Belarusian nation is especially proud of its good climate, isn't it? 6. What can you say about the educational system of Belarus? 7. Why does the demand for higher education remain high? 8. What is necessary to enter a university? 9. Can you name the main principles of the educational system in Belarus? 10. Why has the republic reformed its system of education? 11. What are the most prestigious universities in Belarus? 12. When was the National Academy of Sciences of Belarus created?

#### Exercise 5. Match the words to their definitions.

- 1. Handicraft
  a) an event that is held to celebrate a particular thing or activity;
  2. embroidery
  b) very unusual and surprising;
- 2. emoroidery b) very unusual and surprising;
  3. extraordinary c) with an impressive natural ability;
- 4. gifted5. festivald) hopeful about the future, expects good things;e) the subjects that students study at a particular school;

6. curriculum f) known to many people, well-known;

7. hospitable g) the activity of decorating cloth with colored

stitches;

8. university h) generous towards visitors and guests;

9. optimistic i) an educational institution where students study

for degrees and where academic research is done;

10. famous j) an activity in which people make beautiful ob-

jects using their hands.

### Exercise 6. Complete each sentence using a word derivationally related to the word given in brackets.

1. The vast (collect) of the National Museum of Art in Minsk features the works of Belarusian (artistic) from the 17<sup>th</sup> to the 20<sup>th</sup> century. 2. Modern pop music is (increase) popular in Belarus. 3. Belarus' cinematography traces its (rootless) to the 1930s. 4. The turbulent (historical) of the country is reflected in the themes of war, (occupy) and suffering. 5. The National Library in Minsk was opened in June 2006 in a new hitech (build). 6. Belarusian towns and villages keep a large number of (beauty) (architecture) and cultural monuments. 7. Christianity is reflected in the historical (inherit) of Belarusians, in architecture of Belarusian towns and villages. 8. The Great (patriot) War Museum is among the most (prominence) museums of Belarus. 9. Belarus has a well-organized (systematic) of sports (educate). 10. The culture of Belarus is the product of a millennium of (develop) under the impact of a number of diverse factors.

### Exercise 7. Complete the sentences with the correct preposition (at (3), by (2), in (7), of (6), on, with, –).

1. Belarus has an ancient and versatile culture created ... the preceding generations and expressed ... various written and oral artistic forms. 2. It has much ... common ... other Slavonic cultures preserving its originality and peculiarity ... the same time. 3. Slavonic roots are vividly seen ... ritual harvest and wedding songs. 4. National originality and peculiarity is expressed ... numerous artifacts ... applied arts. 5. The flourishing ... Belarusian culture fell ... the 20<sup>th</sup> century. 6. ... 1920 the Belarusian State Theatre was opened ... Minsk. 7. ... present there are many music groups that promote ... national musical art. 8. Yanka Kupala and Yakub Kolas began their creative activity ... the beginning ... the 20<sup>th</sup> century. 9. All surviving masterpieces are now officially protected ... the state. 10. The largest collection ... works ... art is ... the National Art Museum ... the Republic of Belarus.

### Exercise 8. Read the text again and mark the sentences T (true), F (false), or DS (doesn't say).

1. The Belarusians preserve the charm of national handicraft.

2. The Belarusians are talkative, impatient and very demanding.

3. There are about 40 state theatres in Belarus now. 4. Svetlana Alexsievich is the Noble Prize winner. 5. The Belarusian bands perform only classical and ethnic music. 6. The international annual festival of arts "Slavyansky Bazar" in Vitebsk has become the symbol of the festival movement of Belarus. 7. Pre-school education is compulsory in Belarus. 8. The Minsk State Linguistic University is situated in Zakharov street. 9. Most of the universities are state-owned.

10. The National Academy of Sciences of Belarus is one of the largest centers of science in the world.

### Exercise 9. Choose the answer (A, B, C, or D) that best fits each space.

1. Simeon Polotsky was one of ... Belarusian enlighteners. 2. Puppet theatres are hugely popular ... children and adults. 3. The holiday concept reflects the ... of the Belarusian literature. 4. Maxim Bogdanovich made a considerable contribution ... popularization of Belarusian culture. 5. In 1917 Vitebsk became the ... of the revolutionary avant-garde movement. 6. Marc Chagall ... an art school in Vitebsk. 7. Many people in Belarus ... play at least one musical instrument. 8. ... music performances draw big audiences in our country. 9. Ballet ... very popular in Belarus since the 18th century. 10. The Belarus' documentary is recognized ... .

	A	В	C	D
1	one	the first	first	once
2	with	between	to	about
3	develop	developer	development	developed
4	at	into	on	to
5	center	core	heart	point
6	did	made	constructed	founded
7	may	can	must	have to
8	classic	class	classical	classically
9	had been	is	has been	was
10	world-wide	world-long	world-high	world-like

### Exercise 10. Read the situations and complete the sentences. Use the degrees of comparison.

1. All students of our group are hard-working. But Mark is (hard-working) one. 2. Is Brest (big) or (small) than Grodno? 3. He is my (old) brother. 4. I know that you have read all these books. Which one was (interesting) for you? 5. This blue car is very expensive. The price of the red one is even (high). 6. There are many interesting computer games. Some of them are (popular) than the others. But the "World of Tanks" is (popular) game. 7. The party is so noisy! I can't hear you. Please, speak (loud). 8. Plants grow (good) after the rain. 9. Who is (wise) member of your family? 10. You aren't listening! Please, be (attentive)!

#### Exercise 11. Match the sentence halves.

- 1. There are two Olympic
- 2. The legendary Brest Fortress
- 3. The Nesvizh Palace
- 4. The National Library
- 5. The symbol of the World Hockey Championship 2014 in Minsk
- 6. The Mir Castle is built
- 7. In 2006 the historical and cultural complex
- 8. The funds of the National Museum of History and Culture of Belarus
- 9. Painting first developed in Belarus
- 10. There are 5 Nobel Prize

- a) in the Gothic style.
- b) in the eleventh and twelfth centuries.
- c) is called "the country's first bastion".
- d) training centers in Belarus.
- e) winners from Belarus.
- f) "Stalin Line" was inaugurated.
- g) was a bison named "Volat".
- h) is 73 meter high.
- i) contain 250,000 exhibits.
- j) is situated in Minsk region.

### Exercise 12. Read the text and retell it. The Bologna Process

Higher education has expanded rapidly in all regions over recent decades. It was traditionally offered through the unitary system of universities. Today, it is offered through a network of diverse institutions, which includes university and non-university institutions. Diversification of higher education can be seen in terms of the diversification of providers, programs, clientele, and sources of financing. The level of courses offered varies among institutions of higher education. Non-university institutions offer courses that are very often vocationally oriented programs closely linked to the demands of the labor market; even

when they offer prestigious degrees, they very rarely offer courses leading to advanced research degrees.

Course duration can vary within the same level of education making it difficult to compare degrees and diplomas offered by different countries in terms of content, quality, and duration, thus reducing the chances of regional mobility of students and programs. Worldwide, it is felt that transparency and trust among higher education systems are needed to improve the global attractiveness and competitiveness of higher education. The Bologna Process represents an attempt to achieve this.

The Bologna Process is a series of ministerial meetings and agreements between European countries to ensure comparability in the standards and quality of higher-education qualifications. The process has created the European Higher Education Area (EHEA) under the Lisbon Recognition Convention. It is named after the University of Bologna, where the Bologna declaration was signed by education ministers from 29 European countries in 1999. The process was opened to other countries in the European Cultural Convention of the Council of Europe, and governmental meetings have been held in Prague, Berlin, Bergen, London, Leuven.

Today, the Bologna Process stands out as a highly significant reform that has triggered a chain of national-level reforms in higher education. Its effects are not confined to European countries or the signatory countries, as the move towards harmonization is being attempted in several countries outside the orbit of the Bologna Process (for example in Latin America, in West Africa and in South-East Asia). The harmonization measures in the CIS countries attempt to align their universities with international standards and their education systems with those of the West.

In May 2015, Belarus joined the Bologna process and the group of 47 countries forming the common European Higher Education Area. For Belarus, young educated people are the main asset today. Belarus produces over 16,000 technical graduates annually and the level of brain drain is comparatively low.

Belarusian students are famous for winning medals at science Olympiads and contests, as well as international programming competitions and championships. The projects of Belarusian scientists are recognized at technical fairs.

Exercise 13. Generalize and sum up the information of the unit and make the presentation. Discuss the most interesting points with your groupmates.

# **Unit 2 UNIVERSITY**

#### I. History of the University

### Exercise 1. Make sure you know the following words and expressions.

Train for careers – готовить по специальности; forestry – лесное хозяйство; establish – основывать; commemorate – праздновать, отмечать событие; PhD degree - степень доктора наук, приблизительно эквивалентна степени кандидата наук в invader захватчик, пост-советских странах; \_ transfer переносить, переводить из одного места в другое; inspire вдохновлять; therefore – поэтому, следовательно; flourishing – переживающий пик развития, расцвета; facility – приспособление, оснащение, возможность; grant – предоставлять, официальное разрешение; scope – диапазон, сфера; data processing – обработка данных; mould products – отлитые в форме продукты; construction and fine functional ceramics – строительные тонкокерамические продукты; current and functional electroplating – электрофункциональная гальванизация; engineering and medical bindings – инженерные И медицинские материалы; affiliate – присоединять, включать в систему в качестве филиала; research – исследовательский; subdivision – структурное подразделение; graduate programs – курс обучения; recognize - признавать; energy carriers - энергоносители; accredit – аккредитовать, уполномочить, доверять; woodworking – деревообрабатывающий.

### Exercise 2. Check the pronunciation of the following words and terms with your teacher or your dictionary.

Agricultural Institute, career, agronomy, Polytechnic Institute, faculty, basis, chemical industry, to re-evacuate, to face, engineering personnel, education, rename, liberation, reformation, Technological University, Council of Ministers of the USSR, well-equipped laboratory, ceramics, design, petrochemical synthesis, bio-ecology, enzymes and fermentation technologies, perfumery, consortium.

#### Exercise 3. Read and translate the following text.

The early history of the University began on the 8<sup>th</sup> of December, 1859, when the Gory-Goretsky Agricultural Institute welcomed the first students of the Forestry program, who were trained for careers in agronomy and forestry with the opportunity of obtaining a PhD degree in these fields. Forestry faculties were established in 1919 at the Gory-Goretsky Agricultural Institute and in 1920 in Minsk Polytechnic Institute. They further became a basis for the foundation of the Forestry Institute in Gomel on June 1, 1930. This new technical institution of higher education faced the task of training engineering personnel for forestry, forest and woodworking industries. Therefore, the year 2019 commemorates the 160<sup>th</sup> anniversary of the higher forestry education in Belarus.

In 1934 the Forestry Institute was renamed into the Belarusian Forestry Engineering Institute and was given the name of S. M. Kirov in 1935.

In 1941 at the beginning of the Great Patriotic War the Institute was evacuated to the city of Sverdlovsk and became a part of the Ural Forestry Engineering Institute. After liberation of Gomel from German fascist invaders the Institute was re-evacuated to Gomel. In August 1946 the Institute was transferred to Minsk.

Its reformation in 1961 into the Belarusian Technological Institute was inspired by an intensive development of the Republic's chemical industry. It started training engineers for chemical industries. Later it was given the name of the Belarusian Technological Institute named after S. M. Kirov.

Real flourishing of the Technological Institute started at the end of the 80s and was brought about by intensive development of science; new graduate programs, improved material and technical facilities, and well-equipped laboratories. In 1993 the Government of the Republic of Belarus granted the Institute with the university status (Belarusian State Technological University).

The scope of the University competence has enlarged dramatically. The University began training specialists for the careers in landscape architecture, glass and glass ceramics production, construction and fine functional ceramics, chemical sources of current and functional electroplating, polymer and mould products design, engineering and medical bindings, basic organic and petrochemical synthesis, paintwork materials, industrial ecology, bio-ecology, certification, automation of

technological processes, biotechnology of energy carriers, enzymes and fermentation technologies, fine organic synthesis, medicines, perfumery and cosmetics, information systems and technologies, printing industry, data processing and publishing, management, marketing, tourism and nature management, etc.

The Belarusian State Technological University was granted the status of a leading higher educational institution of the CIS in the fields of forestry and forest industry.

In 2011 the BSTU was accredited as research organization and became a member of Belarusian-Kazakhstan educational-scientific consortium.

In 2012 the University was reorganized into an educational, research and production centre in line with lifelong learning principles. Thus, in March 2013, five colleges (Polotsk State Forestry College, Vitebsk State Technological College, Gomel State Polytechnic College, Bobruisk State Forestry College, and Belarusian State College of construction materials industry) were affiliated to the University as separate subdivisions.

#### Exercise 4. Answer the following questions.

1. Where and when did the early history of the University start?
2. When were the first Forestry faculties established? 3. Where and when was the official opening of the Forestry Institute held? 4. What task did this new technical institution of higher education face?
5. When was the Institute renamed? 6. Why was the Institute evacuated to the city of Sverdlovsk? 7. What caused the reformation of the University? 8. How did the real flourishing of the Technological Institute start at the end of the 80s? 9. When was the Institute reorganized into the University? 10. What specialists did the University begin training? 11. What fields of industries was the University recognized to be a leading higher educational institution? 12. Why were five colleges affiliated to the University as separate subdivisions?

#### Exercise 5. Match the words to their definitions.

- 1. flourishing

  a) the science of developing, caring for, or cultivating forests; the management of growing timber;
- 2. transfer b) to exist or be done in order to remind people of (an important event or person from the past);

3. woodworking c) a person who enters by force to conquer or

plunder;

4. research d) reaching a height of development or influ-

ence;

5. facility e) to give official authorization or approval; to

recognize (an educational institution) as maintaining standards that qualify the graduates for admission to higher or more specialized insti-

tutions or for professional practice;

6. inspire f) investigation or experimentation aimed at

the discovery and interpretation of facts, revision of accepted theories or laws in the light of new facts, or practical application of such new

or revised theories or laws;

7. invader g) the skill or work of making things out of wood

8. accredit h) something that makes an action, operation,

or activity easier;

9. forestry i) to cause something to occur or to be creat-

ed or done;

10. commemorate j) an act or process of moving someone or some-

thing from one place to another.

### Exercise 6. Complete each sentence using a word derivationally related to the word given in brackets.

1. The University researchers (contribution) to over 230 projects within 35 national and international scientific and technical programs.

2. More than 400 enterprises and (organize) cooperate with the Technological University.

3. Breakthrough to the world markets of advanced technology production is only provided with state-of-the-art high-tech (equip).

4. The University departments are equipped with modern (science) tools.

5. Our students are (active) involved into research work (R&D).

6. Many graduation projects made by BSTU students propose innovative (solve) which are then applied by national enterprises.

7. Being the University students they are (inspiration) to join various research associations, design studios and laboratories.

8. Special attention is paid to practical (train) of students.

9. The Belarusian State Technological University (cooperation) with leading enterprises, institutions and organizations, opened 20 affiliates of the departments in leading enterprises of the country.

10. Over 870 national enterprises,

organizations and agencies (annual) welcome students for short-term and long-term practical training.

### Exercise 7. Complete the sentences with the correct preposition where necessary.

1. Forestry faculties were established ... 1919 ... the Agricultural Institute. 2. This new technical institution ... higher education faced the task of training engineering personnel .... forestry, forest and woodworking industries. 3. In 1934 the Forestry Institute was renamed ... the Belarusian Forestry Engineering Institute. 4. In 1941 the Institute was evacuated ... the city of Sverdlovsk. 5. Its reformation in 1961 into the Belarusian Technological Institute was inspired ... an intensive development of the Republic's chemical industry. 6. It started training engineers ... chemical industries. 7. Real flourishing of the Technological Institute was brought ... by intensive development of science. 8. In 1993 the Government of the Republic of Belarus granted ... the Institute with the university status. 9. BSTU was granted the status ... a basic higher educational institution of the CIS in the fields of forestry and forest industry. 10. In 2012 the University was reorganized ... an educational, research and production centre.

### Exercise 8. Read the text again and mark the sentences T (true), F (false), or DS (doesn't say).

1. Forestry faculties were established in Brest. 2. This new technical institution trained engineering personnel for forestry, forest and woodworking industries. 3. In 1954 the Forestry Institute was renamed into the Belarusian Forestry Engineering Institute and was given the name of S. M. Kirov. 4. In 1941 the Institute was evacuated to the city of Moscow. 5. In August 1946 the Institute was transferred to Minsk. 6. Its reformation in 1961 into the Belarusian Technological Institute was inspired by an intensive development of the Republic's forestry industry. 7. Real flourishing of the Technological Institute started at the end of the 70s. 8. In 1993 the Government of the Republic of Belarus granted the Institute with the university status. 9. Today the University is recognized in the Republic of Belarus as a leading higher educational institution in the fields of forestry, chemical and printing industries. 10. In 2010 seven colleges were affiliated to the University as separate subdivisions.

### Exercise 9. Choose the answer (A, B, C, or D) that best fits each space.

1. The agricultural ... welcomed the first students of the Forestry program, who were trained for careers in agronomy and forestry. 2. Forestry faculties ... in 1919. 3. In 1934 the Forestry Institute was ... into the Belarusian Forestry Engineering Institute. 4. After ... of Gomel from German fascist invaders the Institute was re-evacuated to Gomel. 5. The University was put in ... of training engineers for chemical industries. 6. Real ... of the Technological Institute was brought about by intensive development of science. 7. The scope of the University competence .... dramatically. 8. The University began training ... for the careers in landscape architecture. 9. Five ... were affiliated to the University as separate subdivisions. 10. In 2011 the BSTU became a member of Belarusian-Kazakhstan educational-scientific ....

	A	В	C	D
1	college	institute	university	school
2	established	were	were	have
		establishing	established	established
3	recalled	recognized	renamed	reformed
4	liberation	freedom	separation	disruption
5	obligation	charge	duty	right
6	developing	flourishing	succeeding	overcoming
7	has been	has enlarged	was enlarged	will be
	enlarged	_		enlarged
8	students	pupils	specialists	personnel
9	colleges	institutes	institutions	schools
10	trust	business	consortium	R&D
		center		laboratory

#### Exercise 10. Match the sentence halves.

- dents are inspired
- 2. More than 400 enterprises and b) practical training of students. organizations
- 3. Real flourishing of the Technological Institute
- 4. Over 870 national enterprises, organizations and agencies annually
- 1. Being at the University stu- a) to the University as separate subdivisions.

  - c) cooperate with the Technological University.
  - d) of a basic higher educational institution of the CIS in the fields of forestry and forest industry.

- 5. Five colleges were affiliated
- 6. BSTU was granted the status
- 7. Many graduation projects
- 8. Special attention is paid to
- 9. The scope of the University competence
- 10. In 2011 the BSTU was accredited

- e) as research organization.
- f) has enlarged dramatically.
- g) to join various research associations, design studios and laboratories.
- h) started at the end of the 80s.
- i) welcome students for short-term and long-term practical training.
- j) propose innovative solutions which are then applied by national enterprises.

#### II. Academic and Educational work in BSTU

## Exercise 1. Make sure you know the following words and expressions.

Curriculum – цикл, программа занятий; carry out – проводить, выполнять; teaching aid – учебное пособие; competency-based approach – компетентностный подход; up-to-date – современный; vocational school – профессионально-техническое училище; reduced-attendance education обучение ПО сокращенной программе; apply for – обращаться, просить, подавать заявление; collaboration – сотрудничество; embrace – охватывать; employment assistance – помощь в трудоустройстве; on-site training – обучение на месте; tutorial – учебник; conduct – проводить; host – размещать; internships - дипломная практика; maintenance эксплуатация; applicant – абитуриент; pursue a career – выбирать специальность; graduate – выпускник; affiliation – филиал, подразделение; Master's degree program – курс магистратуры.

## Exercise 2. Check the pronunciation of the following words, terms with your teacher or your dictionary.

Multimedia, conceptual, symposia, X-ray diffraction, transmission, furniture design, forest regeneration, mechanics, bilateral, total, pharmaceutical, architecture, discipline, investigation, trend, absorption, spectroscopy, mass-spectroscopy, thermal analysis laboratory; scanning electron microscopy, nanofibres technology, priority, strategy, visit-lecturing, reputable, media, annually, architecture.

### Exercise 3. Read and translate the following text.

Academic and educational work at the University is carried out within the following main lines: development of new curricula; new forms of teaching process organization, including individual work of students; teaching process support with necessary resources, textbooks and teaching aids, multimedia; IT-based teaching, etc.

Being the leading educational institution in the fields of forestry, chemical and printing industries, the University uses innovative competency-based approach to teaching in accordance with up-to-date conceptual model.

Graduates of vocational schools and colleges have an opportunity to apply for reduced-attendance education, having a choice of 11 graduate programs.

The university-industry collaboration embraces a wide scope of activities, i.e. employment assistance, internships and on-site training, course and graduation projects, professional development of teaching staff, external expertise of curricula and educational standards, guest lecturing, interactive learning, etc.

The University houses 10 faculties, the Institute for retraining and professional development, 53 departments, 20 affiliated departments, 5 affiliated colleges, affiliated forestry experimental station in Negoreloe.

The head of the University is the Rector and 5 Deputy Rectors. There are Forestry Faculty, Forestry and Wood Technology Faculty, Organic Substances Technology Faculty, Chemical Technology and Engineering Faculty, Faculty of Print Technology and Media Communications, Economic Engineering Faculty, Faculty of Information Technology, Faculty of Extra Mural Studies, Faculty of Pre-University Training, Faculty of Social Professions. There is a special Dean's Office for International Students. Nearly 680 university academic staff and researchers support 9,000 enrolled students. About 73% of the university academic staff holds scientific ranks and degrees. Nowadays the BSTU can boast over 9,000 students, 6,000 are full-time students and the other 3,000 are extramural, MSc and PhD students.

The teaching process at the University is organized in the following way. The academic year is divided into two terms. During the terms students attend lectures and carry out laboratory and practical work. At the end of each term student pass credit tests and sit exams. The course of studies lasts 4–5 years. At the end of the course of studies, students sit the State Examination and defend Diploma paper (project).

Over 980 academic disciplines of higher education and 410 vocational disciplines are taught at the University. The teaching process at the University and its affiliated colleges is supported by comprehensive textbooks, manuals, tutorials. Electronic teaching resources make best use of the current achievements in science and technology as well as modern trends of teaching.

Classes are conducted in seven academic buildings, at the six affiliations of the University. Annually our lecturers, researchers and students are actively involved in international events. They carry out research and develop innovative technologies in close collaboration with their international partners. Students and professors participate in such international programs as Erasmus +, Horizon 2020, Baltic Sea Region, etc. Every year the University hosts international scientific conferences and symposia. Hi-tech innovative achievements of our researchers are presented at numerous international exhibitions and fairs.

The BSTU research activities are supported by various scientific units. There is a Centre for Physical and Chemical Investigation Methods with integrated laboratories: particle size and surface area analysis laboratory; atomic-absorption spectroscopy laboratory; chromatography and mass-spectroscopy laboratory; thermal analysis laboratory; scanning electron microscopy laboratory; X-ray diffraction analysis laboratory; transmission electron microscopy laboratory.

There are also R&D laboratories of design, construction and maintenance of forest roads; forest protection; manufacturing processes of woodworking and furniture design; glass and glass-type materials; nanofibres technology, etc.

There are testing centers for environmental control; for woodworking equipment and tools; for food quality control.

The main trends in research are forest regeneration; ecological tourism and nature management; logging technology; mechanics and technology of disperse and composite materials; genetic engineering and genetically modified organisms; synthesis of organic and inorganic substances; nanomaterials and nanotechnologies; technologies for electrochemical production; polymers, etc.

International cooperation is among the top priorities of the University activities, having old and well-established traditions of international networking.

Belarusian State Technological University is engaged in collaborative projects and partnerships all over the world focusing on the following cooperation strategies: interuniversity cooperation agreements; visit-lecturing; traineeship and internship exchanges of academic staff, PhD and Master's degree students; joint research projects; joint contributions to reputable science and research journals; student exchange; study programs for international students taught in English and Russian; international conferences and other professional and scientific events; participation in international and EU programs.

The University holds over 150 bilateral cooperation agreements with educational and research institutions from 32 countries worldwide. The strongest partnerships are maintained with the following universities: Vilnius Gediminas Technical University (Lithuania), D. Mendeleyev University of Chemical Technology of Russia (Russia), Saint-Petersburg State Chemical and Pharmaceutical Academy (Russia), Saint-Petersburg State Forest Technical University named after S. M. Kirov (Russia), Warsaw University of Life Sciences (Poland), etc.

The University houses a number of international research and innovation centers, i.e. UNESCO-Associated Centre for Chemical Sciences and Education, International Biopharmaceutical Centre, International IT Centre, International Centre for Advanced Materials and Technology.

The University is a full member of several international organizations and networks, i.e. International Centre for Forestry and Forest Industry, European bilateral cooperation agreements Forest Institute, European Real Estate Society, International Association of Research Organizations for the Information, Media and Graphic Arts Industries, Baltic University Program, etc.

The international student community of the BSTU annually totals over 350 students coming from such countries as Turkmenistan, Iran, Iraq, Turkey, Nigeria, China, Sri Lanka, Vietnam, Finland, Czech republic, Mexico, Azerbaijan, Tajikistan, etc.

They are offered a variety of degree programs: over 50 Russian and English-taught graduate programs, 37 Master's degree programs, 35 PhD programs. International applicants can choose to pursue a career in a wide range of industries and services, i.e. forest and woodworking industry, pharmaceutical industry, building materials, land-scape architecture, electrochemical industry, power engineering, printing and publishing, tourism and travel, biotechnology, etc.

Apart from the degree programs mentioned above, the international students can attend Russian language and pre-university courses as

well as join the professional development programs available at the BSTU. They are welcome to take part in summer language schools, mobility programs and other University events.

Internationalization is an important component of Belarusian State Technological University's strategy, enabling academic staff and students of the university to be globally active and well prepared for future challenges.

### Exercise 4. Answer the following questions.

1. What academic and educational work at the University is carried out? 2. Why does the University use the innovative competency-based approach to teaching? 3. What activities does the university-industry collaboration embrace? 4. What disciplines are taught at the University? 5. Where are the classes conducted? 6. What international events and programs do the students and University professors participate in? 6. What various scientific units support the BSTU research activities? 7. What are the main trends in research at the BSTU? 8. What cooperation strategies does the BSTU promote? 9. What bilateral cooperation agreements are held by the University? 10. What countries do international students come from? 11. What degree programs are offered to the students?

### Exercise 5. Match the words to their definitions.

1. Master's degree	a) to bring to a successful issue; to put into execution; to continue to an end or stopping
	point;
2. applicant	b) occurring or happening every year or once a year;
3. curriculum	c) a paper, book, film, or computer program that provides practical information about a specific subject;
4. internship	d) to bring or receive into close connection as a member or branch;
5. reputable	e) to lead from a position of command; to direct or take part in the operation or management of;
6. carry out	f) a degree that is given to a student by a college or university usually after one or two years of additional study following a bachelor's degree;

7. affiliate g) someone who formally asks for something (such as a job or admission to a college);
8. conduct h) respected and trusted by most people; having a good reputation;
9. tutorial i) A program for a student or recent graduate who works for a period of time at a job in order to get experience;
10. annually j) a set of courses constituting an area of specialization.

## Exercise 6. Complete each sentence using a word derivationally related to the word given in brackets.

1. Most Master's Degree Programs emphasize research (prepare) and experience, and for most students they are a chance to lay the groundwork for pursuing a PhD. 2. Students take four semesters to (completion) the Master's Degree. 3. They are also preparing for PhD preliminary exam, and becoming (involvement) in a research group. 4. Some Master's Degree Programs are practice-oriented (programming). 5. Some Master's Degree Programs are specifically (design) as professional degree programs for students planning to immediately join the profession without pursuing a PhD. 6. PhD is a (researcher) degree. 7. It (significant) that its holder is able to conduct independent research. 8. A PhD holder has both a broad basic (know) of all areas of a specific field and a comprehensive knowledge of one area in particular. 9. The PhD program (equipment) its graduates with modern techniques. 10. The PhD program enables them to take (leader) positions in research in academic, business, and government worlds.

## Exercise 7. Complete the sentences with the correct preposition where necessary.

1. Academic and educational work at the University is carried out ... some major lines. 2. The University uses innovative competency-based approach ... teaching in accordance with up-to-date conceptual model. 3. Graduates of vocational schools and colleges may apply ... reduced-attendance education. 4. The teaching process at the University is supported ... comprehensive textbooks, manuals, tutorials. 5. Classes are conducted ... seven academic buildings. 6. The University researchers and students are actively involved ... international events. 7. There is a Centre ... Physical and Chemical Investigation

Methods with integrated laboratories. 8. The University is engaged ... collaborative projects and partnerships all over the world. 9. The University focuses ... the cooperation strategies of interuniversity cooperation agreements, visit-lecturing, etc. 10. The international student community of BSTU annually totals ... over 350 students coming from such countries as Turkmenistan, Iran, Iraq, Turkey, Nigeria, China, etc.

## Exercise 8. Read the text again and mark the sentences T (true), F (false), or DS (doesn't say).

1. The University uses innovative communicative approach to teaching in accordance with up-to-date conceptual model. 2. Graduates of vocational schools and colleges have an opportunity to apply for Master's degree programs. 3. The university-industry collaboration embraces employment assistance, internships and on-site training, etc. 4. The teaching process at the University is supported by electronic teaching resources. 5. Classes are conducted in five academic buildings. 6. Every year the University hosts international scientific conferences and symposia. 7. The University is engaged in local scientific projects. 8. The strongest partnerships are maintained with American and Asian universities. 9. The University houses few local R&D centers. 10. International applicants can choose to pursue a career in a wide range of industries and services.

## Exercise 9. Choose the answer (A, B, C, or D) that best fits each space.

1. As hub of technological education and science, the University ... and rank is systematically growing. 2. We are proud that the ... of our scholars are recognized in our country and abroad. 3. The University is committed to .... quality programs benchmarked to high international standards. 4. The ... have gradually contributed to various career fields. 5. Our student are actively involved in ... work. 6. The University collaborates with more than 400 national .... 7. Students can gain hands-on professional experience when doing their practical .... 8. A distance learning Master's degree program jointly provided by BSTU and Vilnius Technical University is offered to those university graduates who want to ... some international experience. 9. Engineering challenges ... many significant problems facing society in the 21<sup>st</sup> century. 10. The world ... of hi-tech and R&D products can only be won with state-of the-art equipment.

	A	В	C	D
1	evaluation	value	evaluate	valuable
2	achieves	achievements	achiever	achieving
3	supporting	evaluating	providing	gaining
4	graduates	students	undergraduates	teachers
5	fundamental	applied	research	physical
6	studios	clubs	enterprises	institutes
7	train	training	trainee	trainers
8	reward	adopt	accept	support
9	concern	keep	regard	delivers
10	mark	marketing	market	marketology

#### Exercise 10. Match the sentence halves.

- 1. Research and training laboratories are equipped
- 2. The teaching process incorporates
- 3. The University houses
- 4. BSTU regularly hosts
- 5. Research work of students is
- 6. Graduates of vocational schools and colleges have
- 7. BSTU maintains a system of
- 8. Over 870 national leading enterprises and organizations
- 9. Over 980 academic disciplines of higher education and 410 vocational disciplines
- 10. Students activities are aimed at

- a) advanced training and retraining of teaching staff.
- b) an opportunity to apply for reduced-attendance education.
- c) multimedia technology based on simulated manufacturing facilities.
- d) welcome the University students to get valuable hands-on experience in their chosen career field.
- e) 42 lecture halls, more than 300 laboratories, 120 classrooms equipped with multimedia facilities.
- f) with unique state-of-the art facilities containing modern software to simulate engineering processes.
- g) are taught at the University.
- h) evaluating new ideas and their viabilities.
- i) an indispensable and efficient part of training highly-qualified engineers for chemical industry.
- j) academic conferences that serve as a discussion platform to university teaching staff.

#### III. BSTU International Cooperation. R&D work

## Exercise 1. Make sure you know the following words and expressions.

Exploitable – пригодный к использованию; set out – задаваться целью, собираться что-либо делать; findings – результаты исследования; sustainability – устойчивость развития; resource-saving – ресурсосберегающий; fertilizer – удобрение; impact – воздействие, влияние; scope – диапазон, кругозор, сфера; diverse – разнообразный; durability – прочность, выносливость; medicinal drugs – медицинские препараты; abstract – резюме; recognition – признание; state-of-the-art – современный; major – главный, основной; focus on – сосредотачиваться на чем-либо; currently – в настоящее время; multi-purpose – многоцелевой; binding materials – вяжущие материалы; rubber – резина; cardboard – картон.

## Exercise 2. Check the pronunciation of the following words and terms with your teacher or your dictionary.

Fundamental, society, scholar, technical diagnosis, metallurgy, monitoring, Lithuanian, utilization, processing, binding composite materials, petrochemical synthesis, biotechnology, authorize, technical facilities.

### Exercise 3. Read and translate the following text.

The BSTU is a major scientific and research centre actively developing fundamental and applied research trends. The University focuses on high quality, exploitable research that has the potential to have an impact on the real world around us. Our research sets out to provide solutions to the vital concerns faced by humankind. Research is of central importance in everything we do, as it supports our teaching process and allows the staff to translate findings into impact, which makes a difference to business, industry and society as a whole.

The University scholars are active participants of scientific and technical programs of various scope. For instance, over the last years they have contributed to different national and regional research and technical projects. The Belarusian State Technological University has been the leading partner of national research and technical program "Forests of Belarus – Productivity, Sustainability, Efficiency", subprogram "Electroplating Technology and Equipment" of national research

program "Mechanics, Technical Diagnosis, Metallurgy". Currently the University is a partner of the state research and technical program "Monitoring", international Belarusian-Lithuanian program, Belarusian-Kazakhstan research and educational consortium, etc. The University researchers collaborate with over 400 international and national partners within commercial research contracts.

The scope of research trends developed by the University is highly diverse, i.e. organic and petrochemical synthesis, technology of building materials, glass and ceramics, optical fibre technology, high-temperature ceramics, multi-purpose mineral binding composite materials, polymers and rubber production, electroplating and corrosion protection, synthesis, properties and application of nanomaterials, resource-saving electrochemical production, machines and apparatus of chemical and building materials production, electronic engineering materials, chemical technology of inorganic substances, fertilizers and salts, inorganic pigments and fillers, materials science, strength and durability of materials, sustainable forest management and multi-purpose forest utilization, woodworking machines and tools, woodworking, furniture manufacturing, machines and mechanisms for forest complex, chemical wood processing, paper and cardboard making, biotechnology, medicinal drugs, industrial ecology, biocenology, resource- and energy-saving processes and technology, printing and publishing technology and equipment, information systems and technology, information security software for mobile systems, design of electronic and web-publications.

The research and education schools of national, CIS and international recognition have been established and are operating at the University. Belarusian State Technological University houses 5 PhD Certification Councils. Annually the University researchers publish over 2,500 papers and abstracts. Scientific journal "Proceedings of BSTU" has been included into the list of scientific periodicals of the Republic of Belarus authorized to publish the results of thesis research and into Russian Science Quotation Index. The journal is published annually and welcomes contributions in Russian, Belarusian and English by international scholar community. Only for the past 5 years the University has been received more than 240 patents for inventions and useful models, 117 PhD and doctoral theses have been defended, 67 monographs, 663 textbooks and tutorials have been published at the University. Over 88 international and republican conferences have been hosted by the BSTU.

The high-quality research carried out by the BSTU research staff is supported and ensured by the availability of unique and state-of-the-art laboratory and technical facilities, i.e. scanning electronic JSM-5610 LV equipped with chemical analysis system EDX JED-2201JEOL (Japan), particle size analyzer Zeta MAS (Austria), liquid chromatograph "Waters" (USA), etc.

### Exercise 4. Answer the following questions.

1. What research does the University focus on? 2. What allows the University staff to translate findings into scientific impact? 3. What scientific and technical programs does the University participate in? 4. What institutions are the University partners of the state research and technical programs? 5. What research trends are developed by the University? 6. How many research and education schools of national, CIS and international recognition have been established and are operating at the University? 7. How many papers and abstracts are published? 8. How many PhD and doctoral theses have been defended at the University? 9. What conferences have been hosted by BSTU? 10. What unique and state-of-the-art laboratory and technical facilities are involved into high-quality research?

### Exercise 5. Match the words to their definitions.

1. durability	a) a material made from cellulose fiber (such as wood pulp) like paper but usually thicker;
2. community	b) to endorse, empower, justify, or permit by or as if by some recognized or proper power (such as custom, evidence, personal right, or regulating power);
3. state-of-the-art	c) making productive use of something;
4. cardboard	d) a substance (such as manure or a special chemical) that is added to soil to help the growth of plants;
5. sustainability	e) a summary of points (as of a writing) usually presented in skeletal form; something that summarizes or concentrates the essentials of a larger thing or several things;
6. authorize	f) ability to exist for a long time without significant deterioration in quality or value;

7. exploitable g) a learned detailed treatise covering a small

area of a field of learning;

8. abstract h) the level of development (as of a device,

procedure, process, technique, or science) reached at any particular time usually as a re-

sult of modern methods;

9. monograph i) the quality of relating to, or being a method

of harvesting or using a resource so that the resource is not depleted or permanently dam-

aged;

10. fertilizer j) a group of people with a common charac-

teristic or interest living together within a

larger society.

## Exercise 6. Complete each sentence using a word derivationally related to the word given in brackets.

1. International cooperation is among the top (prior) of the University activities. 2. Dynamic international cooperation is a prerequisite for ensuring the (sustainable) and quality of teaching and research. 3. The BSTU is actively (engagement) in collaborative projects and partnerships all over the world. 4. The strongest partnerships are (maintenance) with some international Universities. 5. Over the last years the University took part in a trilateral education (environment) project "Summer Academy". 6. The University runs a (distance) learning master's degree program. 7. At the current stage of its development the BSTU supports the following key (strategy) initiatives on internationalization. 8. The Wi-Fi-based Internet access is (availability) in the student reading room. 9. The University (subscriber) to about 1,000 volumes of more than 480 publications. 10. The electronic library system is (creative) by the library staff.

## Exercise 7. Complete the sentences with the correct preposition where necessary.

- 1. The University focuses ... high quality, exploitable research.
- 2. The research has a potential impact ... the real world around us.
- 3. Our research sets ... to provide solutions to the pressing concerns faced by humankind. 4. Scientific journal "Proceedings of the BSTU" has been included ... the list of scientific periodicals of the Republic of Belarus. 5. Our research supports ... our teaching process. 6. The high-

quality research is carried out .... the BSTU research staff. 7. Our scientists have contributed ... national and regional research and technical projects. 8. The University researchers collaborate ... over 400 international and national partners. 9. The journal welcomes contributions ... Russian, Belarusian and English by international scholar community. 10. Only for the last years the University has been received more than 240 patents ... inventions and useful models.

## Exercise 8. Read the text again and mark the sentences T (true), F (false), or DS (doesn't say).

1. The scope of research trends developed by the University is limited by forestry and chemistry. 2. The University researchers collaborate with over 400 local partners within commercial research contracts. 3. Currently, the University is a partner of the state research and technical program "Monitoring", international Belarusian-Lithuanian program, etc. 4. There are no PhD Certification Councils at the Belarusian State Technological University. 5. Annually, the University researchers publish over 10,000 papers and abstracts. 6. Over 88 local conferences have been hosted by the BSTU. 7. 16 R&D laboratories have been established and are operating at the University. 8. The journal welcomes contributions in French and Lithuanian by international scholar community. 9. The BSTU research staff is supported and ensured by the availability of unique and state-of-the-art laboratory and technical facilities. 10. The scientific journal "Proceedings of the BSTU" is authorized to publish the results of thesis.

## Exercise 9. Choose the answer (A, B, C, or D) that best fits each space.

1. Annually our lectures, researchers and students are actively ... in international events. 2. The Wi-Fi-based Internet access is ... in the student reading room. 3. Over the years 2013–2015 the University took part in a trilateral education ... project "Summer Academy". 4. The strongest ... are maintained with some international Universities. 5. The University ... to about 1,000 volumes of more than 480 publications. 6. 16 research and education schools of national, CIS and international recognition ... and are operating at the University. 7. International cooperation is ... the top priorities of the University activities. 8. Dynamic international cooperation is a ... for ensuring the sus-

tainability and quality of teaching and research. 9. The journal "Proceedings of BSTU" ... contributions in Russian, Belarusian and English by international scholar community. 10. Belarusian State Technological University houses 5 PhD ... Councils.

	A	В	C	D
1	engage	take part	involved	participate
2	accessible	responsible	available	able
3	environmental	research	scientific	practical
4	relationships	partnerships	internships	friendship
5	issues	publishes	subscribes	reviews
6	were	established	have been	have been
	established		established	
7	among	between	in	over
8	duty	prerequisite	reason	cause
9	welcomes	supports	sends	receives
10	state	certification	committee	foreign

#### Exercise 10. Match the sentence halves.

- 1. The University researchers col- a) publish over 2,500 papers and laborate with
- 2. Belarusian State Technological b) developed by the University is University has been
- 3. Belarusian State Technological University houses
- 4. Over 88 international and d) with some international Unirepublican
- 5. BSTU is a major scientific and research centre
- 6. Annually University the researchers
- 7. The University focuses on
- 8. The scope of research trends
- 9. The strongest partnerships are maintained
- 10. Our lectures, researchers and j) actively developing fundamenstudents are actively

- abstracts.
- highly diverse.
- c) high quality, exploitable research.
- versities.
- e) over 400 international and national partners within commercial research contracts.
- involved in international f) events.
- g) conferences have been hosted by BSTU.
- h) 5 PhD Certification Councils.
- i) the leading partner of national research and technical programs.
- tal and applied research trends.

#### IV. Student Life

## Exercise 1. Make sure you know the following words and expressions.

Gain experiences — приобретать умения, опыт; dormitory — общежитие; enrich — обогащать; enhance — усиливать, увеличивать; overall diversity — всеобщее разнообразие; edit — редактировать; visual and performing art groups — художественные коллективы; choir — хор; promote — продвигать, способствовать; incredible — невероятный; wrestling — рукопашный бой; eurhythmics — ритмическая гимнастика; needlewoman — рукодельница, искусница; unarmed combat — рукопашный бой, самбо; running track — беговая дорожка; weight lifting — тяжелая атлетика; volunteering network — волонтерская сеть, добровольная организация; compassionate — благотворительный, сочувствующий; comprehensive — всеохватывающий; reciting — декламация, чтение вслух; minor — миноритарный, малый, в меньшинстве; reveal — раскрывать; collaborate — сотрудничать; literary — литературный.

## Exercise 2. Check the pronunciation of the following words, terms with your teacher or your dictionary.

Community, Council, collaborate, campus, house, hostels, leisure, display, orchestra, multimedia content, harmonious, physical training, magical, karate, judo, amateur, pantomime, discotheque, volunteer.

### Exercise 3. Read and translate the following text.

Student life is the most exciting and challenging time for students to explore new horizons and set a course for the future. The Belarusian State Technological University gives the chance to make new friends and enjoy new hobbies or sports, to explore opportunities and gain experiences that can change your life.

The student campus houses five dormitories where students can rest and study. The dormitories are conveniently located within a walking distance from the University's academic buildings and provide excellent opportunities to feel part of the community the students are joining. All rooms are equipped with modern furniture and facilities. Student Councils are responsible for social and cultural and educational activities of students. The BSTU students are engaged in multiple interests. The student organizations in campus enrich the social, cultural,

and educational experiences of students. Representatives in student government collaborate with university leaders to enhance the student experience. Student journalists write, edit and produce multimedia content for campus publications. Students interested in the arts participate in a variety of visual and performing art groups, dance groups, choirs, student theatre. Various festivals such as "Student Spring", "Student Autumn", "Mother's Day", contests, meetings, discotheques, sport events in six kinds of sports are arranged at the dormitories. Students go in for football, volleyball, basketball and other sports. Exhibitions of creative students' works are annually held at the student campus. There are international club "Unity" and a room for social activities at the campus; students can develop their creative individual abilities in such groups as "Magical Needles", "Needlewoman", "Do It Yourself", "Golden Boat", "Hostess", the club of decorative arts, etc.

It's hard to imagine student life without sport. One of the conditions for harmonious development of personality is physical training, promoting a healthy lifestyle, which the University pays great attention to. The University possesses a modern sports complex with a gym for team sports, wrestling, eurhythmics and aerobics, medical gymnastics, as well as a stadium with running tracks, football grounds, 2 tenniscourts, basketball and 4 volleyball-courts with synthetic covering. Among the BSTU students there are winners of the international competitions and world championships.

The University teams in chess, arm-wrestling, weight lifting have repeatedly become prize winners of national student competitions. Tourist club, football fan club, fitness club "Technologist" providing students with facilities for athletic training and aerobics function at the University. Interfaculty competitions in various kinds of sport are held at the University annually. University sport club comprises such sport groups as: swimming, athletics, tourism, football, unarmed combat, Greco-Roman wrestling, sambo, karate, judo, volleyball, table tennis, basketball, arm-wrestling, and weight lifting.

Students show their organizational and creative skills in the activities of the primary organization of the Belarusian National Youth Union. The Student Union organizes numerous events for students every year; they invite students to experience new places and countries, to join students' volunteering network and to engage in various activities.

Such amateur groups as prize winner of many international art festivals "Roon", winner of national festivals folk student theatre "Ko-

lokol", professor vocal group "Akavita", folk instrumental orchestra, vocal-instrumental group, dance group "Gratsiya", vocal studios, minor theatrical groups, artistic reciting, pantomime enjoy great popularity at the University. Youth student leisure centre unites creative students and helps to reveal their abilities in the club of intellectual games, in artistic groups, social events, discotheques.

The youth information group and a number of volunteer teams are working successfully at the University. Students can reveal their literary abilities in the student club "Vetlitsa". They are active participants of such student associations as "Poshuk", "Pamyat", "Krinitsa", "Milasernasts", "Spadchyna". Their participants win annual prizes at the national and city contests of creative works.

### Exercise 4. Answer the following questions.

1. When do students explore new horizons and set a course for the future? 2. How many dormitories are there at the student campus? 3. Where are the dormitories located? 4. Who is responsible for social, cultural, and educational activities of students? 5. Why do the representatives in student government collaborate with university leaders? 6. What visual and performing art groups do the students participate in? 7. What sports do the students go in for at the University? 8. What sport facilities does the University possess? 9. What activities does the Belarusian National Youth Union organize for the students? 10. What University amateur groups enjoy the greatest popularity? 11. What student associations are promoted at the University?

### Exercise 5. Match the words to their definitions.

a) a sport or contest in which unarmed individu-1. dormitory als struggle hand to hand with each attempting to subdue or unbalance the other: b) to prepare (something, such as literary materi-2. treatment al) for publication or public presentation; 3. minor c) feeling or showing concern for someone who is sick, hurt, poor, etc. having or showing compassion; 4. wrestling d) a residence hall providing rooms for individuals or for groups usually without private baths; 5. enhance e) any of various dramatic or dancing performances in which a story is told by expressive bodily or facial movements of the performers;

6. edit f) a competition in which each contestant per-

forms without direct contact with or interference

from competitors;

7. compassionate g) the techniques or actions customarily applied

in a specified situation; medical or surgical care;

8. pantomime h) to increase or improve in value, quality, desir-

ability, or attractiveness;

9. contest i) the grounds and buildings of a university, col-

lege, or school; a university, college, or school

viewed as an academic, social, or spiritual entity;

10. campus j) inferior in importance, size, or degree: compar-

atively unimportant.

## Exercise 6. Complete each sentence using a word derivationally related to the word given in brackets.

1. The dormitories are conveniently located within a (walk) distance from the University's academic buildings. 2. All rooms are (equipment) with modern furniture and facilities. 3. Student Councils are (responsibility) for social and cultural and educational activities.

4. The BSTU students possess the (able) to engage in multiple interests.

5. Representatives in student government (collaboration) with university leaders. 6. Exhibitions of (creativity) students' works are annually held at the student campus. 7. It is hard to (imagination) student life without sport. 8. Interfaculty (compete) in various kinds of sport are held at the University annually. 9. The Student Union (organization) numerous events for students every year.

## Exercise 7. Complete the sentences with the correct preposition where necessary.

1. The Faculty of Social Professions was founded ... 1968.

2. During the years of its activity about 15,700 students have got extra skills ... their major. 3. The faculty aims ... providing additional training to the students ... creative and special skills and abilities.

4. There are four programs offered ... this faculty: amateur performances, sports, foreign languages, information and computer technology. 5. The Faculty is developing dynamically and sticks ... the traditions of University education. 6. It keeps ... line with the emerging needs of labour market. 7. The Faculty adapts ... its curricula

and applies innovative teaching techniques. 8. The students have access ... all necessary facilities to advance in their training. 9. Nowadays the Faculty numbers ... 350 students with varied abilities. 10. Students who get skills ... amateur performance are introduced ... aesthetic, cultural and moral values.

## Exercise 8. Read the text again and mark the sentences T (true), F (false), or DS (doesn't say).

1. The University gives the chance to make new friends and enjoy new hobbies or sports, to explore opportunities and gain experiences that can lengthen your life. 2. The student campus houses five hotels where students can rest and study. 3. All hostel rooms are equipped with modern furniture and facilities. 4. The students organizations found on campus decrease the social, cultural, and educational experiences of students. 5. Student journalists are paid for multimedia content for campus publications. 6. Students who are interested in sports participate in a variety of visual and performing art groups. 7. Students go in for football, volleyball, basketball and other sports. 8. Exhibitions of creative students' works are annually held at the international forums. 9. Students show their organizational and creative skills in the activities of the primary organization of the National Socialist Party. 10. The University also runs its own Health Centre providing a wide range of professional, friendly and compassionate medical services to city pensioners.

## Exercise 9. Choose the answer (A, B, C, or D) that best fits each space.

1. Students acquire good taste by ... the performances of outstanding vocalists, pop dancers, theatre actors and folk instrument players.

2. It is a great ... to be students of Honored Art Workers who help to develop young people's talents and abilities, to experience the joy of creative communication.

3. Students of the Amateur Performances Department are active ... of numerous Faculty and University celebrations (Day of Knowledge, Christmas parties, Student Autumn, Student Spring Festivals, Student Inauguration, Club of Witty Youth, and Anniversary Events).

4. The ... process at the Sports Department is provided by highly qualified specialists.

5. BSTU provides students with all necessary ... to keep physically fit, i.e. modern stadium, new sports

complex, and gyms. 6. Students trained at this Department are active participants, winners, ... of university and inter-university tournaments. 7. One of the faculty programs is run by the Intercultural Communication and Technical Translation Department where students ... necessary theoretical and practical skills of translation and interpretation of technical and professional literature and boost linguistic skills of English, French, German and Spanish. 8. The teachers hold classes with the use of multimedia materials and .... the latest achievements in methodology including blended-learning method. 9. Basic IT skills are ... for modern professional who has to handle complex engineering tasks, a great amount of text and graphic information, to make complicated calculations and to work with massive databases. 10. The ... of Information and Computer Technology is designed to acquire theoretical principles and practical skills of the Internet, e-mailing, and virtual communication.

	A	В	C	D
1	providing	watching	performing	presenting
2	truth	decision	honor	experience
3	participants	parties	employers	interviewers
4	education	educational	educationally	educate
5	facilitate	facilities	fascinate	fascinating
6	championship	champions	scholars	grants
7	obtain	retain	produce	revise
8	produce	require	introduce	receive
9	indispensable	important	reliable	fit
10	curriculum	timetable	program	agenda

#### Exercise 10. Match the sentence halves.

- 1. The dormitories are conven- a) with modern furniture and faiently located
- ability
- 3. It's hard to imagine
- 4. The student campus houses five dormitories
- 5. Exhibitions of creative students' works

- cilities.
- 2. BSTU students possess the b) with university leaders to enhance the student experience.
  - c) social and cultural and educational activities of students;
  - d) are working successfully at the University.
  - e) are held at the University annually.

- sible for
- 6. Student Councils are respon- f) within a walking distance from the University's academic buildings.
- 7. Representatives in student government collaborate
- g) are annually held at the student campus.
- 8) Interfaculty competitions in h) student life without sport. various kinds of sport
- 9. The youth information group i) where students can rest and and a number of volunteer teams
  - study.
- 10. All rooms are equipped
- i) to engage in multiple interests.

Exercise 11. Generalize and sum up the information of the unit and make the presentation. Discuss the most interesting points with your groupmates.

# *Unit 3*GREAT BRITAIN

### I. General Description of the UK

## Exercise 1. Make sure you know the following words and expressions.

Separate ['sep( $\Rightarrow$ )re  $\mid$ t] — отделять, разделять; Ice Age — ледниковый период; determine [d1't3:m1n] – определять, устанавливать; due to – благодаря, вследствие, в результате, из-за; mild [maild] – мягкий; морской; distribution [odistri'bju:∫(ə)n] marine [mə'ri:n] распределение; precipitation [pri:sipi'tei $\int (a)n$ ] — выпадение осадков, mountainous ['mauntinəs] осадки; \_ гористый; remarkable [rɪ'mɑ:kəbl] – замечательный, поразительный; exaggerated [ig'zæфəreitid] – чрезвычайный, чрезмерный, преувеличенный; occasionally [ə'keɪʒ(ə)n(ə)lɪ] – иногда, изредка; haze [heɪz] – легкий туман, (атмосферная) дымка; precious ['pre∫əs] – драгоценный; [to'pografi] \_ топография, географические topography геометрические особенности местности; Gaelic ['geɪlɪk] – гэльский язык (распространен в северной Шотландии и на Гебридских островах; на нем говорит 80 тысяч человек).

## Exercise 2. Read and memorize the pronunciation of the following words.

Wales [weɪlz]; island ['aɪlənd]; the British Isles ['brɪtɪʃ'aɪlz]; the North Sea ['nɔ:θ'si:]; the English Channel ['ɪŋglɪʃ'ʃænl]; the United Kingdom (of Great Britain and Northern Ireland); Ireland ['aɪələnd]; Cardiff ['kɑ:dɪf]; gulf [gʌlf]; Mexico ['meksɪkəu]; Caribbean [ˌkærə'bi:ən]; Edinburgh ['edɪnb(ə)rə]; [rɪ'li:f]; Shakespeare [ʃeɪkspɪə].

### Exercise 3. Read and translate the following text.

Great Britain, known as Britain, is a large island in the north Atlantic Ocean off the northwest coast of continental Europe. The country is situated on the British Isles. The British Isles are divided into two

countries – the United Kingdom of Great Britain and Northern Ireland and the Irish Republic. There are over 5,000 islands in the system of the British Isles which lie on the continental shelf. The British Isles are separated from the continent by the North Sea and the English Channel. Great Britain is the largest of the British Isles, the largest European island, and the ninth largest island in the world. In everyday speech "Great Britain" is used to mean the United Kingdom. The population of the United Kingdom is over 57 million people. Its area is about 244,000 square kilometres. The United Kingdom is made up of four countries: England, Wales, Scotland and Northern Ireland. Their capitals are London, Cardiff, Edinburgh and Belfast respectively. The capital of the UK is London. English is the official language. But some people speak Gaelic in western Scotland, Welsh – in parts of northern and central Wales.

The flag of the United Kingdom, known as the Union Jack, is made up of three crosses. The upright red cross is the cross of St. George, the patron saint of England. The white diagonal cross is the cross of St. Andrew, the patron saint of Scotland. The red diagonal cross is the cross of St. Patrick, the patron saint of Ireland.

The geographical position of the British Isles is a basic factor in determining the main characteristics of the climate. The climate of any place results from the interaction of a number of determining factors, of which the most important are latitude, distance from the sea, relief and the direction of prevailing winds.

Britain's climate is dominated by the influence of the sea. It is mild due to the presence of the North Atlantic Drift, or the Gulf Stream. The warm waters of the Gulf Stream move from the Gulf of Mexico and the Caribbean Sea across the Atlantic and so reach the shores of Northwest Europe. This means that marine influences warm the land in winter and the warm air passes over the British Isles throughout the year. Relief is the most important factor controlling the distribution of temperature and the precipitation within Britain. The geographical distribution of rainfall is largely determined by topography. The mountainous areas of the west and north have far more rainfall than the lowlands of the south and east. The eastern lowlands are much drier and usually receive little precipitation. Rainfall is fairly well distributed throughout the year, although the driest months are from March to June and the wettest months are from October to January. It is frequently said that Great Britain doesn't have climate but only weath-

er. The weather changes constantly. No person can guess from one day to another which season they will find themselves in when they wake in the morning. A day in January may be as warm as a warm day in July and a day in July may be as cold as a day in January. The most remarkable feature of English weather, the fog, has an exaggerated reputation. There is occasionally haze in summer and fog in winter. It is no wonder that the Englishmen talk a lot about the weather.

Shakespeare called Britain a "precious stone set in the silver sea" because of its natural beauty. It has a countryside where you can find mountains, plains, valleys and sandy beaches. Ben Nevis in Scotland is the highest mountain, but it is only 1345 metres high.

There are a lot of rivers in Great Britain but they are not very long. The Severn is the longest river while the Thames is the deepest and the most important one.

In 2011 the island had a population of about 61 million people making it one of the most populated land in the world.

British English is spoken in the present day across the island, developed from the Old English brought to the island by Anglo-Saxon settlers from the middle of the fifth century. Some 1.5 million people speak Scottish, about 700,000 people speak Welsh. In parts of north west Scotland Scottish Gaelic remains widely spoken. There are various regional dialects of English and numerous languages spoken by some immigrant populations.

### Exercise 4. Answer the following questions.

1. Describe the geographical position of the British Isles. 2. What is the area of Great Britain? 3. Which factors influence the advantages of Britain's geographical position? 4. What influences the climate of the country? 5. Why do English people like to discuss the weather? 6. What is the highest mountain in the country? 7. What is the population of the UK? 8. What languages do people speak there?

#### Exercise 5. Match the words with the definitions.

- remarkable
   haze
   in gain control or win;
   ha light mist or smoke;
- 3. precipitation c) division among several or many;
- 4. islan5. rainfalld) unusual or noticeable;e) to have an effect on;
- 6. distribution f) rain, snow, etc;

7. due to g) a shape standing out above the rest of the sur-

face it is on:

8. relief h) the amount of rain, hail that falls prevaili)

because of, caused by;

j) a piece of land surrounded by water. 9. influence

### Exercise 6. Complete the sentences with the best answer.

- 1. The climate of any place re- a) latitude; sults from the interaction of a number of determining factors, of which one of the most important is
  - b) precipitation; c) temperature.
- 2. Relief is the most important factor controlling the distribution of
- 3. The geographical distribution of rainfall is largely determined by
- 4. The British Isles are separated from the continent by
- 5. There is one thing in which the British are very fortunate: this is their
- 6. In parts of northwestern Scotland
- 7. The eastern lowlands are much drier and

- a) temperature and sunshine;
- b) precipitation and sunshine;
- c) precipitation and temperature.
- a) relief:
- b) latitude;
- c) topography.
- a) the North Sea and the English Channel:
- b) the mountains;
- c) the Pacific Ocean.
- a) weather;
- b) climate;
- c) geographical position.
- a) American English is spoken;
- b) Gaelic remains widely spoken;
- c) only English is taught at schools.
- a) usually receive little precipitation;
- b) the amount of precipitation is sometimes excessive:
- c) the growing season is longer.

### Exercise 7. Complete the sentences with the correct preposition.

There are over 5,000 islands ... the system ... the British Isles which lie ... the continental shelf. No person can guess ... one day ... another which season they will find themselves ... when they wake in the morning. Shakespeare called Britain a "precious stone set in the silver sea" ... its natural beauty. The warm waters of the Gulf Stream move ... the Gulf of Mexico and the Caribbean Sea ... the Atlantic and so reach the shores of Northwest Europe. Britain's climate is dominated ... the influence ... the sea. Marine influences warm the land ... winter and the warm air passes ... the British Isles throughout the year. The geographical position of the British Isles is a basic factor ... determining the main characteristics ... the climate. British English is spoken in the present day ... the island, and developed ... the Old English brought ... the island ... Anglo-Saxon settlers ... the middle ... the fifth century.

## Exercise 8. Read the text again and mark the sentences T (true), F (false), or DS (doesn't say).

- 1. England is a good place to play golf.
- 2. London is a very popular place for tourists.
- 3. The weather in England can change very quickly throughout the day.
  - 4. The Thames is the most important river in London.
  - 5. People in Great Britain speak only English.
- 6. The warm waters of the Gulf Stream warm the land in winter and the warm air passes over the British Isles throughout the year.
  - 7. The Severn is the longest river in Great Britain.
- 8. Britain's climate is dominated by the influence of the mountains.
  - 9. The eastern lowlands receive much precipitation.
- 10. It is no wonder that living in such unreliable climate the Englishmen avoid talking about the weather.

### Exercise 9. Choose the proper form of the verb.

If you (have learnt, learn) British English and you (were travelling, are travelling) in the States, or you (have learnt, learn) American English and you (were travelling, are travelling) in Britain, you (are noticing, will notice) some differences. An obvious difference (was, is) the accent, but most travelers find that they (won't have, don't have) many problems with this. There (were, are) some grammatical differences, but they shouldn't make it difficult to understand people, or to communicate. That leaves differences in vocabulary, which (can, will be able) cause misunderstandings. Sometimes the difference is only the spelling, for example, in British English centre, colour, travelled, and in American English center, color, traveled. But sometimes the word

(was, is) completely different in British and American English, and it's a good idea to be prepared, e.g. bill - check; chips - fries; ground floor - first floor; holiday - vacation; lift - elevator; motorway - freeway; nappies – diapers; petrol – gas; post – mail; queue – stand in line; return ticket – round trip ticket; single ticket – one-way ticket; taxi – cab; etc.

#### Exercise 10. Match the sentence halves.

- **British**
- mild and temperate
- the British Isles is a basic factor in where.
- Ocean and the warm waters of British Isles. Gulf Stream
- 5. The British Isles are separate e) to mean the United Kingdom. ed from the continent
- 6. In everyday speech "Great f) to use the comparison "as Britain" is used
- physical characteristics and it Stream. contains
- considered as a very hilly coun-periods. try still
- 9. The geographical distribution i) by the North Sea and the Engof rainfall

- 1. That's why it's natural for the a) determining the main characteristics of the climate.
- 2. The climate in Great Britain is b) is largely determined by topography.
- 3. The geographical position of c) it is far from being flat every-
- 4. The mountains, the Atlantic d) influence the climate of the
- changeable as the weather" of a person who often changes his mood or opinion about something. 7. Britain has a great diversity of g) due to the influence of the Gulf
- 8. Though England cannot be h) rocks of nearly all geological
  - lish Channel.

#### Exercise 11. Choose the correct answer.

On 2<sup>nd</sup> September, 1666 a fire (1) ... in a baker's house in London. It was an accident (2) ... was the beginning of the (3) ... fire in London's history. The wind (4) ... hard, so the fire spread quickly through the city. It burnt for three days and (5) ... a large part of the city, including a cathedral, several churches and thousands of homes. People tried to escape with (6) ... belonging in boats on the river, as their houses burnt down. Finally, the fire was put out and the rebuilding of London began. A magnificent new cathedral (7) ... and the people returned to new houses.

	A	В	C
1	was started	started	had started
2	which	who	why
3	worse	bad	worst
4	blew	was blowing	had blown
5	destroyed	had destroyed	has destroyed
6	theirs	them	their
7	was built	is built	was being built

### II. The Economy of the Country

## Exercise 1. Make sure you know the following words and expressions.

Sheep farming – разведение овец; home consumption – внутреннее потребление; up-to-date [Aptə'de It] – современный, новейший, соответствующий требованиям; современным mechanize ['mekəna ı z] – механизировать; sole [səul] – камбала, палтус; herring ['herɪn] – сельдь; prosperous ['prosp(ə)rəs] – процветающий, ['sti:m[p] преуспевающий; steamship пароход; abundant [ə'bʌndənt] – обильный, богатый; non-ferrous [non'ferəs] – цветной (о металле); соррег ['kppa] – медь (металл); lead [led] – свинец; tin [tin] – олово; to meet the needs – удовлетворять потребности; rare metals – редкие металлы; petroleum [pə'trəul1əm] – нефть; pound sterling ['sta:lin] – фунт стерлингов (английская валюта); currency  $['k\Lambda r(ə)n(t)si]$ ; ['k3:r(ə)nsi] — средство денежного обращения, деньги, валюта: Commonwealth of Nations [ $x = \int \sin^2 \theta \sin^2 \theta$ ] Содружество Наций: European Union; EU – Европейский союз ассоциация, объединяющая 2004 (экономическая c 25 европейских International Fund государств); Monetary Международный валютный фонд.

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

The United Kingdom was originally an agricultural and sheepfarming country. Before the Industrial Revolution, Britain had a comparatively small population. It provided all the grain and meat required for home consumption. As the Industrial Revolution gathered speed, many of those who had previously been employed on the land went to work in the factories and mines. Britain was becoming an industrial and trading nation. At the same time a wide range of measures was introduced to increase agricultural efficiency. The introduction of up-to-date machinery was a decisive factor. Agriculture in the UK is intensive, highly mechanized, and efficient.

The true value of Britain's geographical position is obvious. With the discovery of America the British Isles became an intermediary between Europe and the New World. From the 16<sup>th</sup> century the wealth and influence of Great Britain increased rapidly. Sea ports play a great role in the life of the country. London, Liverpool and Glasgow are the biggest English ports, from which big liners go to all parts of the world. The UK retains a significant fishing industry. Its fleets, based in different towns bring home fish ranging from sole to herring.

After becoming one of the most prosperous economic regions in Europe between 1600 and 1700 Britain led the industrial revolution and dominated the European and world economy during the 19<sup>th</sup> century. In the 19<sup>th</sup> century Britain was more powerful than ever. As the result of the industrial revolution, 19<sup>th</sup> century Britain was "the workshop of the world". It produced steam engines (for pumps, factories, railway locomotives and steamships), textile equipment, and tools.

The rise of Britain as an industrial nation was partly due to the presence of considerable mineral resources. They provide raw materials as well as sources of power. There were abundant supplies of coal and iron ore, the two chief minerals on which the Industrial Revolution was based. Coal deposits were situated near the ground surface which made mining easy. Coal-mining was one of the most important industries in Great Britain. The biggest coal and iron mines are in the north-east of England, near Newcastle, in Lancashire and Yorkshire, in Scotland near Glasgow, in Wales near Cardiff and Bristol. Britain had enough non-ferrous metals such as copper, lead, tin to meet the needs for a time. Many of Britain's most valuable deposits have been worked out. Moreover, coal had lost some of its former importance, and such minerals as petroleum and uranium ores have become essential materials in the modern world. But the absence in Great Britain of high-grade iron ore, manganese, chrome, nickel and many other rare metals makes its economy greatly dependent on imported raw materials.

It was a leader in international and domestic banking, entrepreneurship, and trade. It built a global British Empire. The economy of the United Kingdom is the fifth-largest national economy in the world. Nowadays, the English economy relies heavily on services. The main industries are travel (discount airlines and travel agencies), education (Oxford and Cambridge universities, hundreds of language schools for learners of English), music, prestige cars (Rolls Royce, Bentley), fashion and food (especially tea, biscuits, chocolates and jam). It is known as one of world's largest producers and exporters of machinery, electronics, textile, aircraft and navigation equipment.

The currency of the UK is the pound sterling, which is one of the ten most-valued currencies in the world.

The UK is a member of the Commonwealth of Nations, the European Union (although negotiations to leave the EU are currently taking place), of the International Monetary Fund, the Organization for Economic Co-operation and Development, the Organization for Security and Co-operation in Europe, the World Bank, the World Trade Organization, Asian Infrastructure Investment Bank and the United Nations.

### Exercise 3. Answer the following questions.

1. What was one of the most important factors of the rapid industrialization of the country? 2. What industry was mostly developed in Great Britain? 3. Where are the biggest coal and iron mines situated? 4. Why did agriculture decline as the Industrial Revolution gathered speed? 5. What was the reason for the rise of Britain as an industrial nation? 6. What mineral resources is Great Britain rich in? 7. What are the most important materials in the modern world? 8. Why is the economy of Great Britain dependent on other countries? 9. What are the main industries today? Why? 10. What does the country export? 11. What is the position of the United Kingdom in the world?

### Exercise 4. Match the words with the definitions.

- 1. intermediary a) fairly large in amount, size or degree;
- 2. prosperous b) more than enough;
- 3. currency c) central, most important or notable;
- 4. entrepreneurship d) halfway or between others;
- 5. consumption e) natural substances for making goods;
- 6. considerable f) successful, rich;
- 7. employ g) the act of getting something;

- 8. raw materials h) the particular type of money in use; i) owning and running a business; 9. abundant
- 10. essential i) to use as a paid worker; appoint to a job.

### Exercise 5. Complete the sentences with the best answer.

- 1. At the same time a wide a) to employ workers; range of measures was introduced
  - b) to increase agricultural efficiency;
  - c) to develop machinery.
- 2. Many of those who had previously been employed b) got Oxford education; on the land
  - a) decided to stay;

  - c) went to work in the factories and mines.
- 3. The rise of Britain as an industrial nation was partly due to
- a) the people working with enthusiasm;
- b) the presence of considerable mineral resources;
- 4. Coal deposits were situated near the ground surface
- c) its geographical position.
- a) which made mining easy;
- b) which polluted the soil;
- c) which created a lot of problems.
- 5. Such minerals as petroleum and uranium ores
- a) were never used in industry;
- b) have become essential materials in the modern world:
- c) were imported in large quantities.
- America the British Isles World; became
- 6. With the discovery of a) the colony dependent on the New
  - b) an intermediary between Europe and the New World;
  - c) the largest port in the world.
- Before Industrial the Revolution, Britain had
- a) developed service sector;
- b) highly mechanized agriculture;
- c) inefficient agriculture.

### Exercise 6. Complete the sentences with the correct preposition.

It provided all the grain and meat required ... home consumption. ... the discovery ... America the British Isles became an intermediary between Europe and the New World. Its fleets, based ... different towns bring home fish ranging ... sole ... herring. London, Liverpool

and Glasgow are the biggest English ports, ... which big liners go ... all parts ... the world. Many ... Britain's most valuable deposits have been worked .... becoming one ... the most prosperous economic regions ... Europe ... 1600 and 1700. Britain led the industrial revolution and dominated the European and world economy during the 19<sup>th</sup> century. But the absence ... Great Britain ... high-grade iron ore, manganese, chrome, nickel and many other rare metals makes its economy greatly dependent ... imported raw materials. Nowadays, the English economy relies heavily ... services.

## Exercise 7. Read the text again and mark the sentences T (true), F (false), or DS (doesn't say).

- 1. Great Britain is an agricultural country.
- 2. The rise of Britain as an industrial nation was partly due to the presence of considerable mineral resources.
- 3. Great Britain and France took part in creating the United Nations Organization.
  - 4. Britain's role on the International Arena is very important.
  - 5. Service sector is not important in Britain.
- 6. A great role in the recovery of economy was played by Britain's motor industry.
- 7. Such minerals as petroleum and uranium ores have become essential materials in the modern world.
- 8. Many of those who had previously been employed on the land went to work in the factories and mines.
- 9. The sea has been important in the history of England because of the rare birds near the coast.

### Exercise 8. Choose the proper form of the verb.

Until recent times, Britain's heavy industry (was, will be) mainly concentrated in the center of England. British woolen products (had been exported, are exported) to many countries. Great Britain (has always been, is always) a great exporter of wool, hasn't it? Many of those who (had previously been employed, were employed) on the land went to work in the factories and mines. New methods of farming which (had been introduced, were being introduced) reduced the number of workers needed, and many of them lost their jobs. There (were, had been) serious strikes and at times the government (were to use, had

to use) soldiers to break these strikes and force men back to work. In the middle of the 1930s the British economy (has begun, began) gradually recovering.

#### Exercise 9. Match the sentence halves.

- 1. Before the Industrial Revolution
- 2. As result of the industrial revolu- b) have become essential mation
- 3. There were abundant supplies of c) Britain had a comparatively coal and iron ore
- 4. The rise of Britain as an industrial d) to increase agricultural nation
- 5. At the same time a wide range of e) to work in the factories and measures was introduced
- 6. Revolution gathered speed, many of those who had previously been employed on the land went
- 7. They provide raw materials
- 8. Nowadays, the English economy
- 9. Coal had lost some of its former importance, and such minerals as petroleum and uranium ores

- a) was partly due to the presence of considerable mineral resources.
- terials in the modern world.
- small population.
- efficiency.
- mines.
- f) 19<sup>th</sup> century Britain was "the workshop of the world".
- g) as well as sources of power.
- h) the two chief minerals on which the Industrial Revolution was based.
- i) relies heavily on services.

### Exercise 10. Choose the correct answer (A, B, or C).

The East End (1) ... the industrial part of London. It (2) ... with the spread of industry to the east of the City and the growth of the port of London. It (3) ... a wide area, and there are many wharfs and warehouses along the river banks. The East End is one of those areas of London where people from abroad (4) ... to find work. For centuries foreigners (5) ... London their home. Some (6) ... to leave their country for religious or political reasons. Others (7) ... to find a better life. The immigrants (8) ... their customs, traditions and religion into the East End so you can see a mosque, a church and a synagogue not very far apart.

	A	В	C
1	has been	was	is
2	grew	is growing	had grown
3	includes	covers	heads
4	must	have come	were
5	have created	have made left	left
6	had to	have had	want
7	hope	have wanted	wanted
8	have brought	bring	include

#### III. Political System of Great Britain

## Exercise 1. Make sure you know the following words and expressions.

Parliamentary [pa:lə'ment(ə)rɪ] – парламентарный, парламент-[ɪg'zekjutɪv] – исполнительный; executive [ondə'gən] (от undergo) — претерпевать; legislative ['legislətiv] законодательный; judicial судебный; lords spiritual [,lo:dz'spiritjuəl] – «духовные лорды», «владыки духовные» (26 архиепископов (archbishop) и епископов (bishop) англиканской церкви (Church of England) в палате лордов (House of Lords) в отличие от светских членов палаты лордов (lords temporal)); proprietor [prə'pra ı ətə] — собственник, владелец; assent [ə'sent] — одобрение; Magna C(h)arta [ mægnə ka:tə] – Великая хартия вольностей (1215); arbitrary ['a:b tr(ə)r і] — произвольный; judicial [фи: 'd і  $\int (a) l$ ] судебный; superior [su: 'p1ər1ə] - лучший, более совершенный, превосходящий; judicature ['dau:dikətfə] – судопроизводство; British Commonwealth of Nations – Содружество наций (в 1931–53 гг. объединение Великобритании и ее бывших колоний: Канады, Австралийского Союза, Новой Зеландии, Южно-Африканского Союза, Нью-фаундленда и Ирландии; в 1947 г. преобразовалось в Содружество, называемое также Британским Содружеством).

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

Great Britain is a parliamentary monarchy. Officially, the head of the state is the king or the queen. The power of the monarch is not absolute but constitutional (it is limited by the Parliament). The monarch acts only on the advice of the ministers. The monarch, be it

king or queen, is the head of the executive body, an integral part of the legislative, the head of judicial body, the head of the Established Church of England and the head of the British Commonwealth of Nations.

There is no written constitution in Great Britain. The term "English Constitution" means the leading principles, conventions and laws, many of which have been existing for centuries, though they have undergone modifications and extensions in agreement with the advance of civilization. These principles are expressed in such documents of major importance as Magna Charta, a famous document in English history, which set certain limits on royal power and which was later regarded as a law stating basic civil rights.

Power in Great Britain is divided among three branches: the legislative branch, the executive branch and the judicial branch. The legislative branch is represented by Parliament, which consists of two chambers, or houses: the House of Lords and the House of Commons. Parliament in Britain has existed since 1265. Having been organized in the reign of King Edward I, it is the oldest parliament in the world.

The House of Lords consists of more than 1,000 peers, including the "lords spiritual": the Archbishop of Canterbury, the Archbishop of York, and 24 bishops of the Church of England. The peers (with the exception of the "lords spiritual") have the right to sit in Parliament during their lifetime and transmit their right to their eldest sons. During the present century a new practice has appeared: the practice of "creating" new peers. They are called "life peers", because their children do not inherit their titles. New peers are created by the monarch on the advice of the Prime Minister. As a result, about one-third of the Lords today are company directors, bankers, newspaper proprietors and other businessmen.

The members of the House of Commons are elected by a general election. The whole country is divided into constituencies, every one of which chooses one delegate. Big cities are divided into several constituencies each. Members of the House of Commons are elected for five years.

Parliament's main function is to make laws. The procedure of making new laws is as follows: a member of the House of Commons proposes a bill, which is discussed by the House. If the bill is approved, it is sent to the House of Lords, which, in case it doesn't like it, has the right to veto it for one year. If the House of Commons passes the bill

again the following year, the House of Lords cannot reject it. Finally, the bill is sent to the Queen for the "royal assent", after which it becomes a law.

The executive power is headed by the Prime Minister, who is appointed by the king (queen). The Prime Minister is the leader of the party that has won the elections and has the majority in the House of Commons. The Prime Minister appoints the ministers to compose the government. After that the appointed ministers are presented to the monarch for the formal approval. The most important (senior) ministers form the Cabinet. Members of the Cabinet make joint decisions or advise the Prime Minister.

The judicial branch interprets the laws. The highest judicial body is the Supreme Court of Judicature, which consists of two divisions: the High Court of Justice and the Court of Appeal. It is often said that the English law is superior to the law of most other countries. Indeed, the English judicial system contains many rules which protect individual against arbitrary action by the police and government.

The two main political parties are the Conservative Party and the Labour Party.

#### Exercise 3. Answer the following questions.

1. Who is the official head of the state of Great Britain? Explain the following sentence: "The power of the monarch is not absolute but constitutional". 2. Is there a written constitution in Great Britain? What does the term "English Constitution" mean? 3. When was Magna Charta signed? 4. What did Magna Charta set limits on? 5. Which are the three branches of state power in the United Kingdom? 6. What body is the legislative power represented by? 7. How old is the British Parliament? 8. Which are the two chambers of the British Parliament? 9. How many peers are there in the House of Lords? 10. Who are the "lords spiritual"? 11. How are the members of the House of Commons elected? 12. How often do general elections of the House of Commons take place? 13. What is the main function of Parliament? 14. Who is the executive branch headed by? 15. What is the procedure of forming the government? 16. What is the Cabinet? What is the work of the Cabinet? 17. What is the highest judicial body of the country called? 18. Why is it often said that English law is superior to the law of most other countries? 19. Which are the two main political parties in Great Britain?

#### Exercise 4. Match the words with the definitions.

1. monarch a) to agree to a suggestion, idea;

2. constituency b) a ruler of a state;

3. undergo c) an area of a country, represented by somebody;

4. election d) choice or judgement;

5. veto e) to experience (esp. suffering or difficulty);

6. assent f) an owner (esp. of a business);

7. arbitrary g) choosing of representatives for a position by

vote;

8. reign h) based on personal opinion rather than reason;

9. proprietor i) to be the king or queen;

10. decision f) an owner (esp. of a business).

#### Exercise 5. Complete the sentences with the best answer.

1. Magna Charta, a famous a) which set certain limits on royal document in English history ower;

b) based on forbidding something;

c) comprising main laws for voters.

2. The peers (with the exception of the "lords spiritual") have the right to sit in Parliament

a) to sign bills approved;

b) during their lifetime and transmit their right to their eldest sons;

c) because they have a lot of duties.

3. They are called "life peers", because

a) they are elected by a general election:

b) they inherited their titles;

c) their children do not inherit their titles.

4. Parliament's main function is

a) to supervise ministers;

b) to make laws;

c) to limit royal power.

5. The Prime Minister appoints the ministers to compose the government

a) to sit in Parliament;

b) to provide the monarch with absolute power;

c) to help the government.

6. The appointed ministers are presented to the monarch

a) for making joint decisions;

b) for the formal approval;

c) for their agreement.

- contains many rules which protect individual
- 7. The English judicial system a) against the Lords represented by bankers, proprietors and other businessmen;
  - b) against arbitrary action by the police and government;
  - c) against the laws sent to the Queen for the "royal assent".

#### Exercise 6. Complete the sentences with the correct preposition.

Power in Great Britain is divided ... three branches: the legislative branch, the executive branch and the judicial branch. The legislative branch is represented ... Parliament, which consists ... two chambers, or houses. The term "English Constitution" means the leading principles, conventions and laws, many ... which have been existing ... centuries, though they have undergone modifications and extensions ... agreement ... the advance ... civilization. New peers are created ... the monarch ... the advice ... the Prime Minister. The appointed ministers are presented ... the monarch ... the formal approval. Finally the bill is sent ... the Queen ... the "royal assent", ... which it becomes a law. It is often said that the English law is superior ... the law ... most other countries. The English judicial system contains many rules which protect individual ... arbitrary action ... the police and government.

#### Exercise 7. Read the text again and mark the sentences T (true), F (false), or DS (doesn't say).

- 1. There is a written constitution in Great Britain.
- 2. Officially, the head of the state is the Prime Minister.
- 3. The British Commonwealth of Nations includes about 50 independent states which were formerly parts of the British Empire.
- 4. Power in Great Britain is divided among the Prime Minister and the Monarch.
  - 5. Parliament's main function is to make laws.
- 6. The Prime Minister is the leader of the party that has won the elections and has the majority in the House of Commons.
- 7. The Labour Party, sometimes called the Socialists, has a close association with the Trade Unions.
- 8. The English judicial system contains many rules which protect individual against arbitrary action by the police and government.
- 9. During the present century the practice of "creating" new peers has appeared.

#### Exercise 8. Choose the proper form of the verb.

The members of the House of Parliament debate a bill after it (was passed, has been passed) by the House of Commons. Changes may (to recommend, be recommended), and agreement between the two Houses is reached by negotiations. The Lord's main power consists of (be able, being able) to delay non-financial bills for a period of year, but they can also (be introduced, introduce) certain types of bill. The House of Lords is the only non-elected second chamber in the parliaments of the world, and some people in Britain would like (to be abolished, to abolish) it.

The division of Parliament into two Houses goes back over some 700 years when a feudal assembly (had assisted, assisted) the King. In modern times, real political power (has been resting, rests) with the elected House although members of the House of Lords may occupy important cabinet posts.

#### Exercise 9. Match the sentence halves.

- 1. The power of the monarch is a) during their lifetime and transnot absolute
- 2. Magna Charta, a famous document in English history, which set certain limits on royal power and which was later regarded
- 3. The peers (with the exception of the "lords spiritual") have the right to sit in Parliament
- 4. Finally the bill is sent to the Queen for the "royal assent"
- 5. Having been organized in the reign of King Edward I
- 6. The whole country is divided into constituencies
- 7. During the present century a g) after which it becomes a law. new practice has appeared:
- 8. The Prime Minister is the leader of the party that
- 9. Indeed, the English judicial system contains many rules

- mit their right to their eldest sons.
- b) but constitutional (it is limited by the Parliament).
- c) has won the elections and has the majority in the House of Commons.
- d) every one of which chooses one delegate.
- e) as a law stating basic civil rights.
- f) it is the oldest Parliament in the world.
- which protect individual against arbitrary action by the police and government.
- i) the practice of "creating" new peers.

#### Exercise 10. Choose the correct answer (A, B, or C).

The Conservative Party, often (1) ... the Tory Party, is one of those which can (2) ... its roots back to the early period. Today the Tory Party is that of big business, industry, commerce and landowners. Most of the money needed (3) ... the party comes from large firms and companies. The party (4) ... those who (5) ... in private enterprise as opposed to state-owned undertakings. The Tories are (6) ... of the rich and (7) ... – the monopolists and landowners. The Conservative Party is the most (8) ... and is often called a party of business directors.

	A	В	С
1	known	called	famous
2	trace	lead	find
3	to pay	to run	to be paid
4	represents	elects	has
5	don't believe	don't pay	believe
6	a combination	a mixture	a pair
7	poor	peasants	privileged
8	powerful	worthless	mighty

Exercise 11. Generalize and sum up the information of the unit and make the presentation. Discuss the most interesting points with your groupmates.

# Unit 4 INVENTIONS, SCIENCE AND TECHNOLOGY

#### I. Science and Scientists

### Exercise 1. Make sure you know the following words and expressions.

Science – наука; to jump to conclusions – делать поспешные выводы; research – исследование; to explore – исследовать, изучать; to discover – открывать; to invent – изобретать; AD (Anno Domini) – нашей эры; helicopter – вертолет; nuclear fission – ядерное деление; motion – движение; acceleration – ускорение; engine – двигатель; wisdom – мудрость, здравый смысл; substance – вещество; matter - материя, вещество; equation - уравнение; dimension – измерение, объем, величина; ripple – пульсация, рябить; curvature – искривление, изгиб; to collide – сталкиваться; gravitational lensing – гравитационное линзирование; comprehensive – обстоятельный, обширный, исчерпывающий; совместный, общий; judgement – суждение, мнение, наказание; to perceive – воспринимать, осознавать, чувствовать; conscience – осознание; parchment – пергамент; merchant – торговец; to try one's hand – пробовать силы; printing press – печатный станок; to demand – требовать, нуждаться, спрос; for earning – для заработка; iron – утюг; heater – калорифер; gas stove – газовая плита; dishwasher – посудомоечная машина; to be annoyed – злиться; windscreen wipers – «дворники»; disposable nappies – одноразовые подгузники; liquid – жидкость; the bullet-proof vest – бронежилет; incredibly – невероятно; light bulb – лампочка.

### Exercise 2. Check the pronunciation of the following proper names and words with your teacher or dictionary.

Technique; Chinese; Isaac Newton; William Harvey; Robert Boyle; breakthrough; radium; Lise Meitner; Einstein; genius; alchemy; the Nazis; Mercury; Pegasus; a quasar; Alexander Kincaid; psychology; Genoa; William Caxton; Cologne; Bruges; Alexander Graham Bell; Thomas Edison; Josephine Cochrane; Mary Anderson;

Marion Donovan; Betty Nesmith Graham; Stephanie Kwolek; Finnish; Harry Potter.

#### Exercise 3. Read and translate the following text.

Modern civilization is everything that has been achieved thanks to science. We can't but agree that science is very important and that it develops our world. But what is science? Science is systemized knowledge derived through experimentation, observation, and study. In its widest sense it is formulated knowledge, knowledge of structure, laws, and operations. The unity of human knowledge may be artificially divided into religion, philosophy, and science. Sometimes it is considered as a method of learning the world by applying the principles of the scientific method, which includes making empirical observation, proposing hypotheses to explain those observations, and testing those hypotheses in valid and reliable ways; also refers to the organized body of knowledge that results from scientific study. The scientists are more interested in doing scientific work than in defining it. We say that the work is unscientific if it is inexact, badly arranged and jumps to conclusions without evidence. "Science is built up of facts, as a house built of stones; but accumulation of facts is no more science than a heap of stones is a house". "Science is organized knowledge" (Jules-Henry Poincare). "Scientific work must have no object except to find out the truth" (Miguel de Unamuno). In their work scientists use different methods, techniques and approaches. They build up theories, perform experiments, explore, carry out researches, discover and invent.

Every human being possesses two strong impulses: to create and to explore. That is why people have always explored, created and invented something. But there are major inventions and discoveries which have changed our life completely. Among the earliest inventions we can't but mention the invention of the early steam engine by Hero of Alexandria in AD 100; the invention of paper by the Chinese in AD 105.

The seventeenth century saw the development of scientific thinking on entirely new scale. Scientific ideas were tested by experiments. Isaac Newton developed the theory of Gravity in 1687. The discovery of blood circulation and its mechanism by William Harvey, Robert Boyle and Robert Hooke in 1628 led to great advances in medicine and in the study of the human body.

The nineteenth and twentieth centuries are notable for the discoveries and inventions which were a real breakthrough in the world science. Among them are the discovery of the law of chemical elements by Dmitry Mendeleev in 1869; of the invention of the telephone by Alexander Bell in 1876; the invention of the electric light bulb by Thomas Edison in 1879; the invention of a petrol driven car by Karl Benz in 1885; the discovery of radium made by Marie Curie in 1911; the invention of radio by Alexander Popov; the first practical helicopter built up by Igor Sikorski; the invention of television in 1926; the discovery of penicillin by Alexander Fleming in 1928; the discovery of nuclear fission by Lise Meitner in 1939 and many others.

The telephone could be considered the most important invention in the history of communication. The telephone was thought of by Alexander Bell. The first conversation happened in 1876, when Bell was working upstairs in his laboratory. Suddenly, the assistant heard Bell's voice on a receiver downstairs: "Mr. Watson, come here, I want you". The first exchange, with operators connecting callers, was opened in Connecticut in 1887.

Scientific explorations, discoveries and inventions were made by outstanding people like Leonardo de Vinci, Galileo, Newton, Lomonosov, Edison, Einstein. In most cases the genius of the scientist played the decisive role in creating the invention or discovery of scientific laws.

#### Isaac Newton

Isaac Newton was one of the world's greatest scientists. He did research in mathematics, physics, astronomy and many other fields.

Newton was born in 1642. He worked on his family's farm but was not really interested in farming. His father died before Isaac was born. In his childhood he spent much time with his grandmother. Newton didn't have many friends and never married.

Isaac Newton was very ambitious young scientist who carried out his experiments very accurately. His main theory was that everything in nature could be explained through mathematics. Not all scientists had the same opinion.

Newton was an astronomer, who studied the Earth, the planets and stars. He became well-known for theories of gravity, in which he claimed that all objects of the universe have a gravitational force that pulled other objects towards them. An apple is pulled to the Earth's surface just like the Earth is being pulled towards the sun. He also

showed that planets move around the sun in ellipses. His theory of gravity dominated physics for some time.

He also conducted experiments with light and found out that normal light is made up of many colors. He used prisms to break up light into a rainbow of colors. Newton invented a new kind of telescope that used lenses. It made objects look bigger.

In his book "The Mathematical Principles" Newton describes the three laws of motion:

- 1. Every moving object keeps moving until something stops it. An object that lies on the ground continues to lie there until a force sets it in motion.
- 2. Acceleration happens when a force acts on a mass. The greater the mass the more force must be applied to move the object. For example, you need more force to push a car than you need to push a bike.
- 3. For every action there is an equal and opposite reaction. A rocket, for example, pushes down on the ground with its engines; the opposite action moves the rocket into the sky.

These principles were very difficult to understand at that time. Only few people really knew what Newton meant.

Newton also devoted a great deal of his life to alchemy. He studied it closely and believed that he was a special person who had magic powers and secret wisdom to change substances and objects. Newton wanted to keep these studies to himself; therefore, he did not publish any of his alchemist works. At that time alchemy was a much-discussed topic that not everyone accepted.

Newton was not only theorist but a great inventor, too: he invented a mirror telescope. The demonstration of the mirror telescope made a great impression on the contemporaries and in 1672 Newton was elected a member of the Royal Scientific Society. In 1695 Newton was appointed an inspector at the Royal Mint; there he was in charge of coining new English money. In 1703 Newton was elected a President of the Royal Scientific Society. For the last time he attended its meeting in February, 1727. On March 20, the same year he died and was buried in Westminster Abbey. There is a monument to Newton in Trinity College at Cambridge with the inscription: "Newton Who Surpassed All Men of Science".

#### **Albert Einstein**

Albert Einstein was a famous scientist who completely changed the way that people saw our world and the universe. Einstein created many theories which proved that things like gravity, light, energy and matter were connected with each other. At first, very few scientists could understand Einstein's theories but as time passed other scientists showed that he was correct.

Albert Einstein was born in Ulm, Germany in 1879 and grew up in Munich. He wasn't a good student at school and only did things he was interested in, like science and mathematics. At the very early age young Albert started wondering about the mysteries of the universe.

He lived in Berlin for a long time and there he developed many of his scientific theories. In 1921 he received the Nobel Prize for Physics.

In the meantime things were starting to change in Germany. Einstein was against the Nazis and their ideas of controlling the world and killing Jews. The Nazis, in return, hated him and his theories and they burned most of his books.

For the last twenty years of his life, Einstein lived in Princeton where he continued his scientific work. He died on April 18, 1955.

One of the most famous equations ever written came from Albert Einstein:  $E = mc^2$ . Energy is mass times the squared speed of light. This equation shows that mass can be turned to energy.

This means, for example, that there is enough energy in a glass of water to give power to a city like London for a whole week. The problem is how to get the energy out of the mass. This equation led to the building of the atomic bomb. The first bomb only had 0.6 grams of mass but scientist turned it into enough energy to destroy a whole city.

Einstein also thought that space and time were closely related to each other. He thought that there were not three dimensions to objects but four – the fourth one was time. Other scientists, who continued his work, claimed that it is possible to travel into the past and into the future. Black holes might be tunnels that could take you back and forth in time.

According to Einstein all objects followed curved paths and get attracted by the gravity of an object. Time would pass more slowly if you are close to a very large object like a planet. This means that the clock of a plane goes faster than a clock at an airport because the plane is farther away from the earth.

There are many applications of Einstein's work, but here are some of the bigger ones in astronomy:

Gravitational waves: in 2016, the Laser Interferometer Gravitational-Wave Observatory (LIGO) detected space-time ripples – other-

wise known as gravitational waves – that occurred after black holes collided about 1.4 billion light-years from Earth. LIGO also made an initial detection of gravitational waves in 2015, a century after Einstein predicted these ripples existed. The waves are a facet of Einstein's theory of general relativity.

Mercury's orbit: Mercury is a small planet orbiting close to a very massive object relative to its size – the Sun. Its orbit could not be understood until general relativity showed that it's the curvature of spacetime that is affecting its motions and changing the orbit. There is a small chance that over billions of years, Mercury could be ejected from our solar system due to these changes (with an even smaller chance that it could collide with Earth).

Gravitational lensing: this is a phenomenon by which a massive object (like a galaxy cluster or a black hole) bends light around it. Astronomers looking at that region through a telescope can then see objects directly behind the massive object, due to the light being bent. A famous example of this is Einstein's Cross, a quasar in the constellation Pegasus. A galaxy roughly 400 million light-years away bends the light of the quasar so it appears four times around the galaxy.

#### **Adam Smith**

Scottish social philosopher and political economist Adam Smith wrote "The Wealth of Nations" and achieved the first comprehensive system of political economy.

While his exact date of birth isn't known, Adam Smith's baptism was recorded on June 5, 1723, in Kirkcaldy, Scotland. He attended the Burgh School, where he studied Latin, mathematics, history and writing. Smith entered the University of Glasgow when he was 14 and in 1740 went to Oxford.

In 1748, Adam Smith began giving a series of public lectures at the University of Edinburgh. Through these lectures, in 1750 he met and became lifelong friends with Scottish philosopher and economist David Hume. This relationship led to Smith's appointment to the Glasgow University faculty in 1751.

In 1759, Smith published his first work. "The Theory of Moral Sentiments", sold by co-publishers Andrew Millar of London and Alexander Kincaid of Edinburgh. Smith continued making extensive revisions to the book, up until his death. Although "The Wealth of Nations" is widely regarded as Smith's most influential work, it is be-

lieved that Smith himself considered "The Theory of Moral Sentiments" to be a superior work.

In the work, Smith critically examines the moral thinking of his time, and suggests that conscience arises from dynamic and interactive social relationships through which people seek "mutual sympathy of sentiments". His goal in writing the work was to explain the source of mankind's ability to form moral judgment, given that people begin life with no moral sentiments at all. Smith proposes a theory of sympathy, in which the act of observing others and seeing the judgments they form of both others and oneself makes people aware of themselves and how others perceive their behavior. The feedback we receive from perceiving (or imagining) others' judgments creates an incentive to achieve "mutual sympathy of sentiments" with them and leads people to develop habits, and then principles, of behavior, which come to constitute one's conscience.

Some scholars have perceived a conflict between "The Theory of Moral Sentiments" and "The Wealth of Nations"; the former emphasizes sympathy for others, while the latter focuses on the role of self-interest. In recent years, however, some scholars of Smith's work have argued that no contradiction exists. They claim that in "The Theory of Moral Sentiments", Smith develops a theory of psychology in which individuals seek the approval of the "impartial spectator" as a result of a natural desire to have outside observers sympathize with their sentiments. Rather than viewing "The Theory of Moral Sentiments" and "The Wealth of Nations" as presenting incompatible views of human nature, some Smith scholars regard the works as emphasizing different aspects of human nature that vary depending on the situation.

Economists of that time were dominated by the idea that a country's wealth was best measured by its store of gold and silver. Smith proposed that a nation's wealth should be judged not by this metric but by the total of its production and commerce — today known as gross domestic product (GDP). He also explored theories of the division of labor, an idea dating back to Plato, through which specialization would lead to a qualitative increase in productivity.

Smith's ideas are a reflection on economics in light of the beginning of the Industrial Revolution, and he states that free-market economies are the most productive and beneficial to their societies. He goes on to argue for an economic system based on individual self-interest led by an "invisible hand" which would achieve the greatest good for all.

In time, "The Wealth of Nations" won Smith a far-reaching reputation, and the work, considered a foundational work of classical economics, is one of the most influential books ever written.

In 1787, Smith was appointed the rector of the University of Glasgow, and he died just three years later, at the age of 67.

#### William Caxton

Until the latter part of the 15<sup>th</sup> century all books had to be written by hand. In earlier centuries parchment was used but by the end of the 14<sup>th</sup> century paper was being imported, some from Genoa and later from France and the Rhine region. The printing press is thought to have been invented in Germany by Johannes Gutenberg around 1450 and by the end of the century printed books were available in London. The first person to bring printing to England was William Caxton. He was born in Kent, possibly around 1422, and at the age of sixteen came to London.

William Caxton was an English merchant, writer, printer and translator. Caxton started his career as a merchant, apprenticing under Robert Largo's Mercers' Company. Trained at the profession, he went on to establish his own company and in the course became a successful and wealthy merchant. Meanwhile, he even took up the role of the governor of the Company of Nation of Merchant Adventurers of London. The 1460s witnessed a turn in Caxton's career, as he slowly drifted towards literature. He tried his hand at translation, translating in English works by French originals. However, the major turn in his career came when he visited Cologne, where he learnt the art of printing. Impressed by the German printing technology and realizing its commercial potential, he introduced printing press to England. Returning to Bruges he set up a press and in 1474–1475 published his translation of "The Recuvell of the Histories of Troy", the first book printed in English. In 1476 he returned to England where he set up a press beside Westminster Abbey. He became the first English person to work as a printer and also the first English retailer of printed books. Over the course of this career, he printed over 108 books in different genres, four-fifth of them being in English language. He is greatly responsible for standardizing English language through printing. After his death in 1492, the press continued to thrive for another 40 years.

Caxton not only published and printed books but built up a trade in those he imported from the Continent. Although he was based at Westminster, many of his customers were the merchants of the City of London. Customs records show that in 1488 alone he imported over one thousand books within a two month period. Other than Caxton there were very few booksellers in London until the following century.

### Exercise 4. Answer the following questions. Make up other questions to all the parts of the text.

1. What is the definition of science? 2. What are the main discoveries of the 19<sup>th</sup> and 20<sup>th</sup> centuries? 3. What are the main Newton's inventions? 4. What are the most important inventions made by Einstein? 5. Who is the author of the "The Wealth of Nations"? 6. Who is the first person to bring printing to England? 7. What physical laws did Newton formulate?

#### Exercise 5. Match the words with their definitions.

- 1. science a) the ability of matter or radiation to do work;
- 2. physics b) study and investigation to discover facts;
- 3. accelerate c) the force that attracts bodies towards the center of the earth;
- 4. accelerate d) a branch of knowledge requiring systematic study and methods;
- 5. gravity e) a system of stars, esp. the one containing the sun and the earth;
- 6. galaxy f) increase the speed;
- 7. meantime g) forward or onward movement; development;
- 8. energy h) a set of ideas formulated to explain something; an opinion;
- 9. theory i) the study of the properties and interactions of matter and energy;
- 10. research j) in the intervening period; at the same time.

### Exercise 6. Complete each sentence using a word derivationally related to the word given in brackets.

1. Today, we cannot expect our life without science and technology (revolve) around it every single second. 2. Technology is (extreme) essential in our everyday life, as it has made things simpler, faster and more secure. 3 While science is the study of entire universe from the cellular level to the highest level, technology is the (apply) arising from

science. 4. While science involves (explain), phenomenon, analysis and (predict) on various subjects, technology is something that simplifies all these things. 5. Various (contribute) to science and technology have helped us save time and money. 6. (Vary) objects and devices like computers, modes of transport, washing machines or just anything else help us save our time and money. 7. The age in which we live can be (right) called the age of science and technology. 8. The progress of science and technology has made many useful (achieve) in every field of our life. 9. (Dead) weapons like atom and hydrogen bombs, missiles can destroy the whole world in a moment. 10. (Atom) energy can be used (effective) for constructive purposes.

### Exercise 7. Complete the sentences with the correct preposition (of (7), for (2), to (3), in, from, with, on, about).

1. The morning newspaper which brings to us all important news ... the whole world is a product ... science. 2. ... our daily comforts science has given us the electric light, the electric fan, the refrigerator and the electric oven. 3. Science has made our means ... communication and transport very easy. 4. Buses, trains, ships and planes use advanced technologies and carry people ... distant places more quickly. 5. Newer technologies help us ... taking out all the minerals like coal, iron, gold, diamond and mica. 6. Introduction ... the latest technology in the works of cultivation by the scientific methods has greatly increased the production ... crops. 7. Technology also provides us ... the some means ... amusement like radio, television and video that entertains us. 8. Now satellites are sent ... the sky to bring a lot of information ... the outer space. 9. Man has even been able ... set foot ... the moon and knows many things ... other planets.

### Exercise 8. Read the text again and mark the sentences T (true), F (false), or DS (doesn 't say).

1. The scientists are more interested in doing scientific work than in defining it. 2. Scientific ideas were tested by investigations. 3. The telephone was thought of by Edison. 4. Einstein invented a new kind of telescope that used lenses. It made objects look bigger. 5. Gravitational lensing: this is a phenomenon by which a massive object (like a galaxy cluster or a black hole) bends light around it. 6. Atomic energy can be used effectively for constructive purposes. It can turn a desert

into a fertile land. It can also be used in curing some incurable diseases, if scientific research is properly made in this respect. 7. Smith proposed that a nation's wealth should be judged not by this metric but by the total of its production and commerce – today known as gross domestic product (GDP). 8. Caxton only published and printed books. 9. Technology means a skillful system. The etymology of technology illuminates its meaning. "Techne" in Greek means art, craft or skill. 10. Among the earliest inventions we can't but mention the invention of the early steam engine by Hero of Alexandria in 100 BC; the invention of paper by the Chinese in 105 BC.

### Exercise 9. Choose the answer (A, B, C, D) that best fits each space.

1. Science makes our lives ... . 2. Works can be done easier through high-tech machines and ... . 3. It gives less work for ... and our job can be done faster. 4. Nowadays, computer is the most useful and popular ... to everyone. 5. Through science and technology, it is easier for us ... with other people. 6. It is also significant in the field of business because transactions and other events ... through the computer. 7. Science is not giving us only the positive side but it ... has its disadvantages that truly affect human life. 8. If we look around the surroundings, it is so crowded, polluted and damaged which ... mainly by the existence of invented technologies throughout the world. 9. The ... style of living is deleted and replaced by modern style of living that destructs our culture and society. 10. World is being run by high-tech machines and innovated equipment that people think it would give us ... effects.

	A	В	C	D
1	simply	the simplest	simpler	simple
2	equipments	equipped	equipping	equipment
3	humanity	human	humans	humane
4	invent	inventor	inventive	invention
5	invent	communicative	communicant	communicable
6	to communicate	are done	have done	do
7	doing	either	also	too
8	cause	the traditional	causing	to cause
9	traditionally	traditional	traditionalism	traditionalist
10	better	the best	more good	good

#### Exercise 10. Match the sentence halves.

- 1. Pure science is a) physics, mechanics, chemistry, geology etc.
- 2. Natural science is b) the scientific study of nature of man.
- 3. Social science is c) the scientific study how the bodies of living things work.
- 4. Biology is d) the study and treatment of diseases of mind.
- 5. Botany is e) related to biology.
- 6. Physiology is7. Psychology isg) related to people 's lives and natures.
- 9. Dayshiotry is i) the gainstiff a study of plants
- 8. Psychiatry is i) the scientific study of plants.
- 9. Anthropology is j) considered only for its own nature as a skill or exercise of the mind.
- 10. Physical scienc- k) the scientific study of mind and the way it es include works.

#### Exercise 11. Read and translate the following text.

When we think of famous inventors we usually think of men, people like Alexander Graham Bell, Thomas Edison, etc. But many of things which make our lives easier today were invented by women.

Let's take the dishwasher for example. This was invented by a woman called Josephine Cochrane in 1886. She was a rich American who gave a lot of dinner parties. But she was annoyed that her servants used to break plates and glasses when they were washing them after the party. So, Josephine decided to try and invent a machine which could wash a lot of plates and glasses safely. Today the dishwasher is used by millions of people all over the world.

The car was invented by a man, but it was a woman, Mary Anderson, who in 1903 solved one of the biggest problems of driving. Until her invention, it was impossible for drivers to see where they were going when it was raining or snowing. The name of her invention? Windscreen wipers.

A fantastic invention that definitely improved the lives of millions of people was disposable nappies. They were invented by a woman called Marion Donovan in 1950. Anybody who has a small baby knows what a big difference disposable nappies make to our lives. Today more than 55 million nappies are used every day in the world.

A few years later in 1956, Betty Nesmith Graham was working as a secretary. She used to get very frustrated and angry when she made typing mistakes. In those days if you made a mistake you had to get a new sheet of paper and start again from the beginning. She had a brilliant idea, which was to use a white liquid to paint over mistakes. Her invention is called Tipp-Ex today. Mrs. Graham was a divorced mother and her invention made her a very rich woman.

And finally ... policemen, soldiers, and politicians all over the world are protected by something which was invented by a woman. In 1966 Stephanie Kwolek invented kevlar, a special material which was very light but incredibly strong, much stronger than metal. This material is used to make the bullet-proof vest. Her invention has probably saved thousands of lives.

#### Exercise 12. Complete the sentences with the inventions.

- 1. ... was invented by Josephine Cochrane in 1886.
- 2. ... was invented by Mary Anderson in 1903.
- 3. ... was invented by Marion Donovan in 1950.
- 4. ... was invented by Betty Nesmith Graham in 1956.
- 5. ... was invented by Stephanie Kwolek in 1966.

Exercise 13. Make five true sentences using the following words.

	A	В	C
1	The dishwasher	is called	Tipp-Ex today
2	Disposable nappies	was invented	by Marion Donovan
3	More than	are protected	every day
	55 million nappies		
4	Mrs. Graham's	were invented	by the bullet-proof
	invention		vest
5	Policemen all	are used	by an American
	over the world		woman

### Exercise 14. Complete the text bellow with the correct verb in the right form.

Base; create; design (2); discover; invent; name; use; write.

Text-messaging was ... by the Finnish company Nokia. They wanted to help Finnish teenagers, who were very shy. They found it easier to text their friends than to phone them.

The first bikini was ... by two Frenchmen. It was ... after Bikini Atoll, the island where the atomic bomb was first tested. The Frenchmen thought that the bikini would have a similar effect on men as a bomb exploding.

Light bulbs are ... specially to last only a certain number of hours. It would be possible to make light bulbs that lasted forever, but then the manufacturers wouldn't make so much money.

The first Harry Potter book was ... in a cafe in Edinburgh. J. K Rowling was unemployed, and didn't have enough money to pay for heating, so she wrote it in the cafe where it was warmer.

Although penicillin was ... by Alexander Fleming, he didn't know how to make it into a medicine. It was first made into a medicine ten years later, by an Australian scientist Howard Florey.

Spiders were ... as a cure for toothache in the 17<sup>th</sup> century. They were first made into a paste, and then put on the bad tooth.

Sherlock Holmes, the great detective was ... by writer Arthur Conan Doyle. Holmes was ... on a real person. Doyle's teacher at medical school, who was famous for saying to his students: "What can you tell me by just observing the patient"?

#### II. Goals of science

### Exercise 1. Make sure you know the following words and expressions.

То elucidate – разъяснять, объяснять; goal – цель, задача; human sciences – гуманитарные науки; to benefit – извлекать, приносить пользу; multiple – многочисленный; natural sciences – естественные науки; social sciences – социальные (общественные) науки; health science – здравоохранение (медицинские науки); аррыеd science – прикладная наука; forensic psychology – судебная психология; justification – обоснование, подтверждение; legitimate – законный, обоснованный; nonetheless – тем не менее, все же; preсерt – указание, правило; to deduce – делать вывод.

### Exercise 2. Check the pronunciation of the following proper names and words with your teacher or dictionary.

John Locke; hypotheses; trajectory; turbulence; scenario; expertise; archaeology.

#### Exercise 3. Read and translate the following text.

Science continually seeks to gain increased understanding and, where appropriate, the possibility for control of many specific aspects of the physical world. Its successes in achieving this goal stem directly

from its ability to elucidate the foundational mechanisms, which underlie nature's processes.

The underlying goal or purpose of science to society and individuals is to produce useful models of reality. People can form hypotheses based on observations. By analyzing a number of related hypotheses, scientists can form general theories. These theories benefit society or human individuals who make use of them. For example, Newton's theories of physics allow us to predict various physical interactions, from the collision of one moving billiard ball with another, to trajectories of space shuttles and satellites. Relativity can be used to calculate the effects of our sun's gravity on mass light-years away. The social sciences allow us to predict (with limited accuracy for now) things like economic turbulence and also to understand human behavior better and to produce useful models of society and to work more empirically with government policies. Chemistry and biology together have transformed our ability to use and predict chemical and biological reactions and scenarios.

**Fields of science**. Science is broadly subdivided into the categories of natural and social sciences. There are also related disciplines that are grouped into interdisciplinary and applied sciences, such as engineering and health science. Within these categories are specialized scientific fields that can include elements of other scientific disciplines but often possess their own terminology and body of expertise. Examples of diverse scientific specialties include linguistics, archaeology, forensic psychology, materials science, microbiology, nuclear physics, and paleontology.

**Scientific method.** The scientific method seeks to explain the events of nature in a reproducible way, and to use these reproductions to make useful predictions. It is done through observations of natural phenomena, and/or through experimentation that tries to simulate natural events under controlled conditions. It provides an objective process to find solutions to problems in a number of scientific and technological fields.

Scientists use models to refer to a description of something that can be tested by experiment or observation. A hypothesis is a contention that has been neither well supported nor yet ruled out by experiments. A theory, in the context of science, is a logically self-consistent model or framework for describing the behavior of certain natural phenomena. A theory typically describes the behavior of much broader sets of phenomena than a hypothesis – commonly, a large number of hypotheses may be logically bound together by a single theory.

#### Exercise 4. Answer the following questions.

1. What are the main goals of science? 2. Should a scientist gather as much information on his subject as he can before doing his own research? Why? 3. What does the scientific method seek to explain? 4. What is a hypothesis? 5. What is the main difference between the definitions of theory and hypothesis? 6. Is it possible to teach a person how to develop hypothesis? 7. Many scientists state that it is important to formulate a possible solution to the problem before starting experiments. What is your opinion?

#### Exercise 5. Match the words with their definitions.

1. goal	a) to say that (something) will or might happen in the future;
2. elucidation	b) a way of doing something;
3. subdivide	c) something that you are trying to do or achieve;
4. hypothesis	d) to divide (something) into several or many smaller parts;
5. method	e) a chemical change that occurs when two or more substances combine to form a new sub- stance;
6. analysis	f) set apart from the rest or from each other; isolate or divide;
7. predict	g) the process of breaking a complex topic or substance into smaller parts in order to gain a better understanding of it;
8. observation	h) a concept that is not verified;
9. reaction	i) an act or instance of noticing or perceiving;
10. segregate	j) to explain something or make something clear.

#### III. Positive and Negative Effects of Technology on Our Lives

### Exercise 1. Make sure you know the following words and expressions.

Lethal – смертельный; treatment – лечение; nutrition – питание, пища; mitigation – уменьшение; remote – удаленный; to rely on – основываться на; foster – укреплять; affordable – доступный, недорогой; collaborate – сотрудничать, взаимодействовать; to en-

visage — представить себе, предсказать; solitary — одинокий, уединенный; tablet — планшет; ancestors — предки; detached — отстраненный; worrisome — беспокойный, причиняющий беспокойство; to endanger — подвергать опасности; extinction — вымирание, исчезновение; to deny — отрицать; earthquake — землетрясение; droughts — засуха; floods — наводнения; hurricane — ураган; nuclear weapons — ядерное оружие; empathy — сочувствие, сострадание; advancement — развитие, прогресс.

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

We are living in the era of advanced technology. Every part of our daily life is related to technology in one or other way. When compared with older days, we have better facilities and even better luxuries with the help of increased technology. All industries and different sectors of society are developing new technologies according to their needs and requirements.

Thanks to technological progress humans live longer and much more comfortable lives. The medical advancements have helped us develop vaccines and treatment for diseases which were previously lethal. Giving birth is not as dangerous as it used to be. Technological progress has allowed developing new techniques for diagnosis and mitigation of diseases. Scientific research has improved our understanding of nutrition and contributed to healthier lifestyles.

Technology has allowed humans to travel faster and trade goods all over the world. Crossing the Atlantic was historically an adventure that would take weeks. Now in just a few hours you can travel from New York to London or Paris. Thanks to technology, we can have holidays in remote locations and capture these moments through pictures.

Without technology, we would still be nomads hunting and gathering fruits and vegetables. Industrial societies heavily rely on technological progress. We can feed a fast growing world population thanks to the continuous innovation in production techniques. New inventions help foster the production, storage, treatment and transportation of goods. The people in technologically advanced societies live more comfortable lives.

Genetically modified foods (GMO) may help fight hunger and ensure that world population continues to be fed. Genetic modification techniques contribute to produce more food and to maintain agricultural production at affordable prices.

The Internet, computers and mobile phones illustrate the role of technology in improving society. Efficiency has skyrocketed thanks to these inventions. People can now work from home and collaborate with teams located in other towns, countries or even continents. We can keep a fluid communication and relationship with friends and family living abroad. News of events crosses the globe in seconds. Social networks such as Facebook and Twitter are extremely useful. Thanks to technology, grandparents see and chat with their grandchildren much more often. People today meet others sharing similar hobbies or interests.

Thanks to new technologies, alternative forms of entertainment and art were developed during the last century. Photography, radio, movies, television shows, music and video games occupy a central spot in people's lives. There are new forms of entertainment at our doorstep, such as virtual reality. Additionally, IT is facilitating the work of creators and help increase the quality of entertainment.

The importance of technology in the development of renewable energy is evident. Without technological progress it would be difficult to envisage a green future in which the problem of climate change could be kept under control. Scientific advancements are making electric cars more affordable and enhancing the effectiveness and efficiency of solar energy, as well as hydropower.

Technology is altering our lifestyle and will alter the cognitive and social development of current and future generations. There are many different ways in which the evolution of technology and society are connected. Technological innovation has changed our lives. Computers, smartphones and the internet have strongly affected how we interact with other people. Today, children play less with other children and spend much of their time watching videos in their tablets and playing video games. People are doing less physical exercise than their ancestors. We are becoming increasingly attached to technological gadgets.

Human cloning technology is a reality and in addition to some obvious advantages, human cloning brings some risks. Human cloning will be difficult to regulate and will bring concerns regarding its interference with nature and religious beliefs.

**Weaponization of viruses**. For instance, viruses such as Ebola or AIDS could be transformed into a virus that could be carried over the air. This could endanger or even cause the extinction of the human race. Genomes of infectious diseases will be available to download

from the internet. Terrorists, psychopaths and other criminals will have the capacity to use genetic manipulation to harm or threaten others.

Nuclear weapons in the hands of the wrong organizations or individuals could create enormous unrest in the world population and a serious security threat.

Technological progress is to be blamed for the negative effects of global warming and climate change. The role of technology fostering economic progress is difficult to deny. However, at the same time the generation of energy necessary to the increased production and transportation of goods, for instance through combustion engines and thermoelectric generators, has produced an increased in the emission and concentration of greenhouse gases in the atmosphere.

Our environment is almost destroyed. You will never find the place in the world not being polluted by humans. We breathe the air full of chemicals, drink water full of industrial wastes and so on. Many species of plants and animals have become extinct. Obviously, that the nature pays us back the same. That is why there are so many natural disasters such as earthquakes, tsunami, droughts, floods, hurricanes. Today different dangerous diseases are becoming more and more widespread all over the world.

Urbanization, improvement in infrastructure, research and development are some areas of scientific advancements, but their price is too high to be ignored. Technology is like a coin, which has both positive and negative sides. If we use it for positive things, it will have positive effect on our lives and vice versa. Nobody would oppose the development of technologies in any sector but the developments should be in a positive way and they should not have any negative impact on present or future generations.

#### Exercise 3. Answer the following questions.

1. Technological progress has brought great changes into our social and economic organization. What does it mean? 2. Are the things that happen in nature accidental? 3. Science affects many aspects of our lives. What does it mean? 4. The great role is played today by computers. Can you prove this fact? 5. What inventions, electronic and other devices would you call the most sophisticated ones that were invented in the 20<sup>th</sup> century? 6. Say what would have happened if the different inventions and devices hadn't been put into practice. Use the following: electricity, gas, TV, electric bulb, radio, computer, telescope, etc.

## Exercise 4. Which, if any, of the things on the list do you think be areas where scientific discoveries could have very dangerous effects (vd), dangerous effects (d), not dangerous effects (n).

Nuclear energy.

Biotechnology and genetic engineering.

National defense.

Space exploration.

Agriculture and plant science.

Medical research control and reduction of pollution.

Robotics.

New form of energy information.

Technology and computers.

Astrology.

### Exercise 5. Give your viewpoint on the following questions and statements.

1. What do you think of science? Do science and technology do more good than harm, more harm than good, or about equal. 2. The greatest achievements of medical knowledge and care have improved human happiness. 3. In what way are science, engineering and technology interconnected?

### Exercise 6. Collect the ideas to help people to change their attitude and behavior.

Discuss what you should do to save energy at home and how to avoid producing too much rubbish. Some of your ideas can be crazy. Remember that inventors were often considered to be crazy when they developed their ideas and explained them to others.

Exercise 7. Generalize and sum up the information of the unit and make the presentation. Discuss the most interesting points with your groupmates.

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Составители: **Давыденко** Юлианна Ивановна **Кривоносова** Елена Валерьевна **Кривопуск** Тамара Михайловна **Рыбакова** Светлана Михайловна

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