

ФЕДЕРАЛЬНОЕ АГЕНТСТВО ЖЕЛЕЗНОДОРОЖНОГО ТРАНСПОРТА  
ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ БЮДЖЕТНОЕ ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ ВЫСШЕГО  
ОБРАЗОВАНИЯ

ИРКУТСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ ПУТЕЙ СООБЩЕНИЯ

СИБИРСКИЙ КОЛЛЕДЖ ТРАНСПОРТА И СТРОИТЕЛЬСТВА



## *ОГСЭ.04. Иностранный язык в профессиональной деятельности*

Учебно-методические указания  
по практическим занятиям  
для обучающихся III курса  
специальности № 08.02.01  
Строительство и эксплуатация  
зданий и сооружений



Иркутск

2022

Электронный документ выгружен из ЕИС ФГБОУ ВО ИргУПС и соответствует оригиналу

Подписант ФГБОУ ВО ИргУПС Трофимов Ю.А.

00a73c5b7b623a969ccad43a81ab346d50 с 08.12.2022 14:32 по 02.03.2024 14:32 GMT+03:00

Подпись соответствует файлу документа



РАССМОТРЕНО:  
Цикловой методической  
комиссией иностранных языков  
«08» июня 2022 г.  
Председатель: О.В. Горвая /Горовая О.В.

СОГЛАСОВАНО:  
Заместитель директора по УВР  
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«09» июня 2022 г.

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Данное учебно-методическое пособие предназначено для студентов 3<sup>х</sup> курсов колледжа, обучающихся по специальностям СЭЗС.

Учебно-методическое пособие рассчитано на 65 часов аудиторных занятий .

Данное учебное пособие состоит из

- заданий, упражнений и текстов по истории строительства, о старинных и современных зданиях, о строительных профессиях и материалах применяемых при строительстве зданий и сооружений
- итогового теста
- краткого грамматического справочника

Тексты заимствованы из учебной литературы.

Учебно-методическое пособие для студентов 3 курса рассмотрено и одобрено на заседании предметно цикловой комиссии русского языка, культуры речи, литературы, иностранных языков.

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## ***Unit I. The history of building***

***Task 1. Find in the dictionary all meanings of the words. Construct all possible words adding any affixes.***

Engineer, build, application, construct, utilize

***Task 2. Use the table to construct statements about buildings and builders.***

Her father	is are have has	a builder.
Builder		an honorable profession.
In the deserts people		necessary profession.
Buildings		very old.
All builders		huge and comfortable.
The builder's profession		many architectural monuments in our town.
Her brother		rich with old buildings.
Modern buildings		not wood to build a house.
There		pads to protect their hands.
Our town		a three-room flat.

***Task 3. Read and translate the following word combinations into Russian.***

Profession of civil engineer; branches of civil engineering; utilization of materials and forces of nature; to protect oneself against the elements; civil engineering; mechanical engineering; electrical engineering; nuclear engineering; mining engineering; military engineering; marine engineering; sanitary engineering

***Task 4. Read and translate the text.***

### ***Civil Engineering***

The word "engineering" means the art of designing, constructing, or using engines. But this word is now applied in a more extended sense. It is applied also to the art of executing such works as the objects of civil and military architecture, in which engines or other mechanical appliances are used.

Engineering is divided into many branches. The most important of them are: civil, mechanical, electrical, nuclear, mining, military, marine, and sanitary engineering. While the definition "civil engineering" dates back only two centuries, the profession of civil engineer is as old as civilized life.

In order to understand clearly what civil engineering constitutes, let us consider briefly the development of different branches of engineering. Some forms of building and utilization of the materials and forces of nature have always been necessary for man. Man had to protect himself against the elements and sustain himself in the conflict with nature.

Up to about the middle of the 18th century there were two main branches of engineering - civil and military. The former included all those branches of the constructive art not directly connected with military operations and the construction of fortifications, while military engineering concerned itself with the application of science and the utilization of building materials in the art of war. But later there came a remarkable series of mechanical inventions, great discoveries in electrical science and atomic energy. It led to the differentiation of mechanical, electrical, nuclear engineering, etc.

Architecture, which up to the 18th century had been considered a branch of engineering had become a profession by itself. The term "civil engineering" has therefore two distinct meanings. In the widest and oldest sense it includes all non-military branches of engineering as it did two centuries ago. But in its narrower and at the present day more correct sense civil engineering includes mechanical engineering, electrical engineering, metallurgical, and mining engineering.

**Task 5. Answer the following questions.**

1. What are the main branches of engineering?
2. What is civil engineering?
3. How old is the profession of civil engineer?
4. What are the fields of civil engineering?

**Task 6. Read these items of the plan in the order according to the content of the text above.**

1. Two main branches of engineering.
2. The age of the profession of civil engineer.
3. The meaning of the word "engineering".
4. The widest and oldest sense of the term "civil engineering".
5. The consequences of inventions and discoveries.

**Task 7. Use these clichés and the items of the plan above to retell the text.**

I'm going to retell.....  
In the beginning of.....  
I've known that.....  
It was interesting to know that.....  
Speaking of..... it turned out that.....  
The fact that ..... was new for me.

**Task 8. Read and translate the dialogue. Continue it..**

**Teacher:** Today we are going to discuss the development of different branches of engineering. Can you name any?

**Student:** Yes, certainly. The most important of them are: civil, mechanical, electrical, nuclear, mining, military, marine and sanitary engineering.

**Teacher:** Let's remember the fields of civil engineering.

**Student:** In the whole, civil engineering makes housing, industrial construction; the construction of highways, city streets and railroads.

**Teacher:** Explain, please, the fields of mechanical and military engineering.

**Student:**.....

**Task 9. Read and translate the text.**

### ***From the history of building***

Many thousands of years ago there were no houses such as people live in today. In hot countries people sometimes made their homes in the trees and used leaves to protect themselves from rain or sun. In colder countries they dwelt in caves. Later people left their caves and trees and began to build houses of different materials such as mud, wood or stones. Later people found out that bricks made of mud and dried in the hot sunshine became almost as hard as stones.

In ancient Egypt especially, people learned the use of these sun-dried mud bricks. Some of their buildings are still standing after several thousands of years. The ancient Egyptians discovered how to cut stone for building purposes. They erected temples, palaces and huge tombs. The greatest tomb is the stone pyramid of Khufu ['ku:'fu:], king of Egypt. The ancient Egyptians often erected their huge buildings without thinking of their usefulness.

The ancient Greeks also understood the art of building with cut stone, and their buildings were beautiful as well as useful. They often used pillars, partly for supporting the roofs and partly for decoration. Parts of these ancient buildings can still be seen today in Greece.

**Task 10. Choose the correct variant and complete the sentences.**

1. People first lived in... (a) *houses*, b) *palaces*, c) *trees or caves*).
2. Egyptian pyramids are made of... (a) *stone*, b) *wood*, c) *bricks*).
3. Natural building material is ... (a) *wood*, b) *bricks*, c) *concrete*).
4. The ancient Greeks knew the art of building with ... (a) *steel*, b) *cut stone*, c) *concrete*).

**Task 11. Complete the sentences.**

1. The ancient Greeks used pillars for ... .
2. We usually make houses of... .
3. Bricks are made of... .
4. The ancient Egyptians made their homes of...

**Task 12. Answer the following questions.**

1. Where did people live many thousands years ago?
2. Did ancient people use wood or bricks to build their houses?
3. What kinds of buildings did the ancient Egyptians erect?
4. What did the ancient Greeks use pillars for?

**Task 13. Write from the text.**

1. Names of people's dwellings.
2. Names of building's types.
3. Names of parts of buildings.
4. Names of building materials.

**Task 14. Make the plan of the text "From the history of buildings".**

**Task 15. Use the correct forms of adjectives.**

1. Brick house is (warm) than a hut.
2. Cottages are (comfortable) than caves.
3. Greek buildings are (beautiful) Egyptian ones.
4. The builder's profession is (important) in the world.
5. Wood house is (cheap) than stone house.

**Task 16. Choose the correct forms of the verbs.**

1. During the last hundred years many new methods of building (a) **has been discovered**, b) **have been discovered**, c) **will has been discovered**).

2. One of the most recent discoveries (a) **is**, (b) **were**, (c) **be**) the usefulness of steel as a building material.
3. Nowadays it (a) **is**, (b) **are**, (c) **were**) often necessary to have a very tall building.

**Task 17. Read and translate the text.**

### ***Relics of Wooden Architecture***

The carpenters of the ancient Russian city of Novgorod were famed for their skill. Carpenters and builders, they erected peasant homes, fortress walls and towers, windmills, churches, chapels and even palaces. They built thousands of villages and a large number of towns mainly with axes. In olden times practically all the buildings in Novgorod were made of timber.

Relics of the carpenters' skill - art of truly folk origin - have been preserved to our days.

To establish the artistic worth of old structures a close study is made of all that is left and of books and even legends passed on from generation to generation.

The rich finds led to the decision to collect and put in one place all the more valuable works by unknown architects of the Novgorod area.

**Task 18. Make the questions for every sentence of the text above.**

## ***Unit II. Building and its parts***

**Task 1. Read and translate the text.**

### ***Some facts about buildings***

The buildings erected nowadays can be divided into two general classes: buildings for housing and industrial buildings.

As far as material is concerned buildings can be divided into brick, wood, concrete and steel buildings.

Brick is an artificial building material made of clay which is then burnt for hardening. Natural stone (rubble masonry) is used for footing and foundations for external walls carrying the load. Buildings made of stone are durable and fire-resisting.

The floors divide a building into stories. They may be either of timber or, in brick buildings, of reinforced concrete details of big and small sizes.

The coverings or upper parts of buildings meant to keep out rain and wind and to preserve the interior from exposure to weather are called roofs. They tie the walls and give the construction strength and firmness.

Every building must have a beautiful appearance. The interior should be planned to suit the requirements of the occupants while the exterior must be simple with nothing superfluous.

Every building should be provided with water, electricity, ventilation and heating systems. The water supply and sewerage systems are called plumbing.

Careful consideration must be given to the amount of money which is going to be spent in building the house. An estimate depending upon the design of the building must be calculated after which work on the building can be started.

**Task 2. Add the necessary tail-questions.**

1. Brick is an artificial building material,.....
2. Buildings made of stone are durable,.....
3. The coverings or upper parts of the building are called roofs,.....
4. The exterior of a building must be simple, .....

5. The water supply and sewerage systems are called plumbing, .....
6. The interior should be planned to suit occupants,.....
7. An estimate of the building must be calculated carefully,.....

**Task 3. Answer the following questions.**

1. Into what groups can buildings be divided as far as material is concerned?
2. How should the interior be planned?
3. In what way should the exterior be planned?
4. What should every building be provided with?
5. What must be calculated first of all?

**Task 4. Read and translate the text.**

In all the cities of the world there are some very old buildings. Sooner or later they have to be pulled down or reconstructed. In Moscow and St. Petersburg and other towns some parts of the old town are reconstructed and carefully preserved. In some others all old buildings are pulled down and modern comfortable structures of concrete and glass are being built. In Warsaw, for example, many buildings destroyed during the World War II were reconstructed and now they look as they did before the war.

**Task 5. Read the list of pros and cons. Think of some more.**

1. Old buildings are historic monuments.
2. Old buildings are not comfortable, they have no necessary conveniences.
3. It is much cheaper to reconstruct old buildings than to build new ones.
4. The process of reconstruction takes a lot of time and needs qualified workers.
5. The architecture of old buildings is much more beautiful than that of modern buildings.
6. City traffic can't go through old narrow streets.
7. There is no place to build new houses.

**Task 6. Give the full answer.**

Is it necessary to reconstruct old buildings or pull them down? Why?

**Task 7. Fill in the blanks using the words below.**

### ***Parts of a building***

Almost everyone saw the construction of..... and followed its progress with interest. First the excavation is dug for....., then the foundation walls below ground level are constructed; after this..... is erected and clothed with various finishing materials and protected by several coats..... The part upon which..... of the structure depends is the framework. It is intended for safely carrying .....imposed. The floors, walls, roofs and other parts of the building must be carefully..... The architect or designer must decide what the size of the walls, the floors, the beams, the girders and the parts which make up the framework will be and how they will be placed and arranged. Here are the main parts of a building and their..... Foundations serve to keep the walls and floors from .....with the soil, to guard them against the action of frost, to prevent them from sinking and settling which cause cracks in walls and uneven floors. Floors .....the building into stories. They may be either of..... or of a fire-resisting material. Walls are built to enclose areas and carry the weight of floors and roofs. The walls may be solid or hollow. The materials used for the walls construction can be brick, stone, concrete and other natural or artificial materials.

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the stability, a building, timber, functions, of paint, contact, the basement, designed and proportioned, the loads, the framework, divide

**Task 8. Answer the following questions.**

1. What is done first when the construction of a building begins?
2. What keeps the walls and floors from contact with the soil?
3. What are the floors for?
4. What do the walls of a building serve for?
5. Does the stability of a building depend on the framework?

**Task 9. Complete the sentences .**

1. The excavation is dug ... .
2. The stability of the structure depends upon ... .
3. The building is divided into stories by ... .
4. The main parts of a building are ... .

**Task 10. Read and translate the dialogue. Retell it.**

**A:** Today we should clear up some important questions, concerning of the interior of our building. First of all we have to decide who will construct the acoustic ceilings.

**B:** Well I think the Hungarian masters are more qualified than the others and have the great experience.

**A:** Settled. And what about the decoration of the conference hall?

**B:** I've consulted with some building companies and they offer to use marble. They have rare kind of marble to make a mosaic.

**A:** OK. Let's meet with the representatives of that company and discuss all details. How are the things going on with elevators?

**B:** The elevators will be ready to work soon. We wait when some details will be delivered.

**A:** Be careful. All works have to be done in time.

**Task 11. Read and translate the text. Title each part.**

***Impressions of modern architecture***

1. You ask, what I think of modern architecture. I don't know very much about modern architecture in Europe, but styles are probably similar in most countries today. I think this is because now architects have no opportunities they had in the past. They are seldom asked to design 'buildings like wonderful churches and cathedrals of the Middle Ages. Architects today have to design schools, hospitals and huge blocks of flats and offices. If they are asked to make plans for houses, these are usually all alike or nearly alike.

2. Boxes - that's what a good deal of modern architecture, reminds me of. The blocks of flats in our big towns are huge boxes, whether the fronts and sides are square or oblong. A man, who lives in one of these boxes works in another big box, high up in the air. If he falls ill, he goes to another big box called a hospital.

3. Architects have done some very good work in designing new schools. Many of these are prefabricated, which means that as much of the building work as possible is done not on the building site, but in factories where mass production methods can be used. The parts are taken to a site and put together there. Children who attend the best of these new schools are very happy. Their classrooms are light and big and they have a fine large assembly hall. The children have dinner at school and there is a dining-hall completed with modern kitchen.

4. I began this letter by saying that many modern buildings, especially the blocks of flats and business offices, were like big boxes. They do look like boxes from the outside but when we go

inside, we find them very well planned for their purposes. An architect today has to be an engineer too. The best modern buildings help us to live and work in comfort. They save plenty of unnecessary work. There is central heating, for example, instead of the dusty open fires we used to have, with coal to be carried up long stairs and ashes to be carried down.

5. I have given my opinion on what I have seen in England. I know a lot of interesting work has been done in Scandinavia and, of course I've read about the work of Le Corbusier in France, and I'd like to see what American architects are doing now. You may know the work of the American architect Frank Lloyd Wright. He designed the Imperial Hotel in Tokyo. It was designed to resist earthquakes and it proved so strong that it did. It was one of the few buildings in Tokio that did not fall on the terrible earthquake of 1923.

***Task 12. Find English equivalents in the text above.***

Детали доставляют на стройку, им редко заказывают, огромные коробки, выдерживать землетрясения, массовое производство, обычно все похоже, избавляют от ненужной работы, прекрасный большой актовый зал, напоминает мне о, хорошо спланированы, стили вероятно похожи.

## ***Unit III. Building professions***

***Task 1. Read and translate the text.***

### ***Some building professions***

A man, who has been an apprentice for some years in a building trade and has therefore enough skill to be considered a skilled worker at his trade, is called tradesman or craftsman.

He may be a carpenter-and-joiner, bricklayer, mason, plumber, electrician, house painter, glazier, floor-and-wall tiler, plasterer, paper-hanger, steeplejack, hot water fitter and so on.

**Bricklayer** is a master who builds and repairs and joints salt glazed stoneware drains, sets, chimney pots and fireplaces. He renders brickwork, including the insides of manholes. A sewer and tunnel bricklayer is a specialized bricklayer. In some districts of Great Britain, bricklayers also fix wall and flooring tiles, and slating and lay plaster. But elsewhere these are plasterer's specialties.

**Carpenter** is a man who erects wood frames, fits joints, fixes wood floors, stairs and window frames, asbestos sheeting and other wallboard. He builds or dismantles wood or metal formwork. The two trades of carpenter and joiner were originally the same, and most men can do both, but specialize in one or the other. In the USA the term "carpenter" includes a joiner. The word is derived from the French word *charpente* which means a wood or metal framework

**Joiner** is a man who makes joinery and works mainly at the bench on wood which has been cut and shaped by the machinists. His work is finer than the carpenter's, much of it being highly finished and done in a joinery shop which is not exposed to weather. In Scotland a joiner is a carpenter-and-joiner.

**Mason** is a stone worker or stone setter. In Scotland and the USA a bricklayer is usually also a mason. A fixer or a fixer-mason or a builder mason is a mason who sets prepared stones in walls, whether the stone be only facing or to the full wall thickness.

**Plasterer** is a tradesman who lays successive coats of plaster or rendering and fixes fibrous plaster such as mould cornices and wall pattern.

***Task 2. Answer the following questions.***

1. Who is called a tradesman or a craftsman?
2. Whose trades were originally the same?
3. Whose work is finer: the carpenter's or the joiner's?
4. What kind of work does a plasterer perform?

***Task 3. Unscramble the words.***

terpencar, joneri, erbrilacky, onmas, sterla, pbelumr, trielecican, , zigerla, erplaerst, , stejaepckle, tefitr

***Task 4. Make interrogative forms of the sentences.***

1. A bricklayer renders brickwork.
2. A bricklayer can fix wall and flooring tiles.
3. A carpenter erects wooden frames.
4. Joiner's work is done in a joinery shop.
5. A plasterer lays successive coats of plaster.

**Task 5. Translate from Russian into English.**

***Российские архитекторы.***

1. Шретер Виктор Александрович (1839 - 1901) – академик, с 1882 – главный архитектор Петербургских императорских театров. Один из наиболее талантливых архитекторов России 60-80-х годов 19 столетия. По его проекту был построен Драматический театр имени Охлопкова в Иркутске. Это здание является украшением города.
2. Воронихин Андрей Никифорович (1759 - 1814) – разработал проект постройки Казанского Собора в Санкт-Петербурге. Воронихин бывший крепостной барона Строгонова, сумевший со временем стать искуснейшим (skillful) архитектором и профессором «Академии художеств».
3. Баженов Василий Иванович (1737 - 1799) – великий русский архитектор, первый в России архитектор, получивший образование в своей стране и за рубежом (во Франции и Италии). Он разработал проект «Кремлевского дворца» и строительство подмосковного «Царицына».

**Task 6. Complete the sentences.**

1. It was..... who made the project of the Cazan Cathedral in Saint-Petersburg.
2. It was..... who got education abroad.
3. It was..... who became the professor “The Art Academy”.
4. It was..... who was one of the most talented Russian architects in 60-s of XIX century.
5. It was..... who made the project of the Kremlin Palace.
6. It was..... who made the project of the Ohlopkhov Drama Theatre.

**Task 7. Translate from Russian into English.**

1. Здание построено по проекту российских архитекторов. Здание строится по проекту российских архитекторов. Здание будет строиться по проекту российских архитекторов.
2. Мозаика выполнена из редких видов мрамора. Мозаика выполняется из редких видов мрамора. Мозаика будет выполняться из редких видов мрамора.
3. Потолки установлены специалистами из Венгрии и Болгарии. Потолки устанавливаются специалистами из Венгрии и Болгарии. Потолки будут устанавливаться специалистами из Венгрии и Болгарии.

## ***Unit IV. Building materials***

***Task 1. Read and translate the text.***

### ***Building materials***

Building materials - natural and artificial material and products, used at the construction and building repair. Differences in the purpose and conditions to erecting and usages the buildings define varied requirements to the building materials and their extensive nomenclature.

Building materials are distinguished on strictly building materials and building products- ready details and elements, assembled in the building on the place of construction (sanitary-technical booths, door and window blocks etc.)

The list of building materials is extensive and varied. Alongside with traditional materials- ceramic, natural, stone, glass and other- in the modern construction broadly use new building materials on the base of plastic.

At the building activity and erecting it is necessary in the first place to use local building materials (sand, gravel, lime, brick and others) that shorten transport expenses, forming much of the material cost. The greater value for cheapen building materials has a salvaging the departures of industry.

Hygienic studies allow considering that basically bad characteristics of some polymeric material (resins) can be shown in following:

- 1) Smelling materials, creating steadfast scent;
- 2) Materials, possessing in greater or smaller measure, cause poisoning, irritating by characteristics.
- 3) In synthetic material (mastic, glue) sometimes occurs an accumulation of electrostatic charges that causes unpleasant sensations at the contiguity.

Requirements to the building material and products are kept in state sin formation on the building material, given its determination, specified raw material application, categorization, and division by the sort and marks, methods of test, condition of keeping and transporting.

Official document for builders is also "Building rates and rules", where are kept nomenclature and sizes of main building materials, requirements to their quality, instructions upon their choice and using depending on conditions of usages of raising building standards, standard specifications and other normative documents.

***Task 2. Read the sentences from the text with the verbs in Passive Voice, paraphrase them using Active Voice.***

***Example:***

- This framework *is made* of wood. -
  - 1) It has the wooden framework.
  - 2) They made this framework of wood.

***Task 3. Write out the names of natural and artificial building materials.***

***Task 4. Read and translate the text.***

### ***Silicate industry***

The industry processing the natural compounds of silicon is called the silicate industry. It embraces the production of cement, glass, and ceramics.

The production of ceramic goods is based on the property of clay when mixed with water to form putty from which various articles can easily be molded. When these articles are dried and then baked, that is, ignited at a high temperature, they become hard and retain their shape, no longer being softened by water.

In this way clay mixed with water and sand is molded into bricks, which are then dried and baked. The materials used to make silicate bricks are white sand and slaked lime.

**Cement Production.** Cement is made from limestone and clay, or from their natural mixture. The materials roasted in cylindrical rotary kilns are charged into a slowly rotating kiln at its upper end and travel, mixing continuously, towards the lower end, while a current of hot gases, the products of the burning of fuel, flows in the opposite direction. During the period of their movement through the kiln the clay and the limestone react chemically, and the material emerging from the kiln in lumps of a caked mass is cement, which is then ground.

When cement is mixed with water, it forms mortar, which hardens, binding various objects, such as bricks or stones, very firmly. It is for this reason that cement is used widely as a binding material in large-scale construction, including underwater construction.

Cement is often mixed with sand or gravel, in which case we get concrete. Concrete has roughly the same coefficient of thermal expansion as iron.

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

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

**Task 5. Answer the following questions.**

1. What is the name of the industry processing the natural compounds of silicon?
2. What materials are used for making silicate bricks?
3. What are the initial materials for getting glass?
4. How do we get concrete?
5. What is the difference between cement and concrete?

**Task 6. Make the plan of the text above. Retell it.**

**Task 7. Make the questions using the words in brackets.**

1. Schools, offices, blocks, supermarkets, dance and bingo halls are among hundreds of buildings throughout the country in danger of collapse. (What...?)
2. Hundreds of buildings are at risk because the concrete they are made of could be unsafe. (... or...?)
3. It is necessary to use materials that shorten transport expenses. (Which ....?)
4. At first the liquid mass of glass becomes viscous. (When.....?)
5. During the period of their movement through the kiln the clay and the limestone react chemically. (How.....?)

**Task 8. Read and translate the text.**

**Brick**

A brick is best described as "a building unit". It may be made of burnt clay, of concrete, of mortar or of a composition of sawdust and other materials; in shape it is a rectangular solid and its weight is from 6 1/2 to 9 pounds.

The shape and convenient size of a brick enables a man to grip it with an easy confidence and, because of this, brick-building has been popular for many hundreds of years. The hand of the average man is large enough to take a brick and is able to handle more than 500 bricks in an eight-hour working day.

It is necessary, therefore, for the "would-be" bricklayer to practice handling a brick until he can control it with complete mastery and until he is able to place it into any desired position.

***Task 9. Answer the following questions.***

1. What materials is brick made of?
2. Why brick-building has been popular for many hundreds of years?
3. What is the shape of a brick?
4. What is the brick's weight?

***Task 10. Find English equivalents from the text above.***

Форма и размер кирпича, ширина кирпича, строительство из кирпича, из обожженной глины, практиковаться в укладке, достаточно большая, с полным мастерством, лучше всего характеризуется.

***Task 11. Make the sentences using the words below.***

1. clay, a brick, of, can, made, be, burnt.
2. Brick-building, popular, has, years, of, been, hundreds, for, many.
3. A "would-be", a brick, must, bricklayer, until, practice, mastery, handling, control, with, he, complete can, it.
4. able, a bricklayer, is, any, a brick, to place, position, into, position.
5. pads, the bricklayer's, with, and, thumb, the fingers, be, protected, must, leather.

***Task 12. Read and translate the text.***

***Prestressed concrete***

Prestressed concrete is not a new material. Its successful use has been developed rapidly during the last four decades, chiefly because steel of a more suitable character has been produced.

Concrete is strong in compression but weak when used for tensile stresses.

If, therefore, we consider a beam made of plain concrete, it will at once be realized that the beam's own weight will cause the beam to "sag" or bend. This sagging at once puts the lower edge of the beam in tension, and if the cross-sectional area is small, causes it to break.

If, on the other hand, we use a beam of similar cross-section, but incorporate steel bars in the lower portion, the steel will resist the tensile stress derived from the sag of the beam, and thus assist in preventing it from breaking.

In prestressed concrete steel is not used as reinforcement, but as a means of producing a suitable compressive stress in the concrete. Therefore any beam (or member) made of prestressed concrete is permanently under compression, and is consequently devoid of cracks-under normal loading, or so long as the "elastic limit" is not exceeded.

Prestressed concrete is not only used for beams but is now employed extensively for columns, pipes, and cylindrical water-towers, storage tanks, etc.

***Task 13. Choose the correct variant and complete the sentences.***

1. Prestressed concrete is ... (a) a completely new building material, b) not really a new material).
2. The successful use of prestressed concrete has been developed rapidly ... (a) long ago, b) during the last four decades).
3. Plain concrete is ... (a) strong in compression, b) weak in compression).
4. Plain concrete is ... (a) weak when used for tensile stress, b) strong when used for tensile stress).
5. Prestressed concrete is used ... (a) only for beams, b) for beams, columns, pipes, etc.).

***Task 14. Complete the sentences.***

1. Prestressed concrete has been used during ... .
2. Plain concrete is strong in ... .
3. The sagging of a beam made of plain concrete may cause it to ... .
4. Incorporated steel bars in the lower portion of a beam prevent ... .
5. A beam made of prestressed concrete is permanently under ... .
6. Prestressed concrete is now employed extensively for ... .

***Task 15. Answer the following questions.***

1. Is prestressed concrete a new building material?
2. How long has prestressed concrete been used in construction?
3. What disadvantages has plain concrete?
4. What is steel used in prestressed concrete for?
5. What will happen if "elastic limit" of a beam is exceeded?
6. What is prestressed concrete used for?

***Task 16. Read and translate the text.***

*New domestic-made roofing materials*

The TechnoNICOL Group produces and sells the modern roofing and insulating materials which can solve the problem of building hydro insulation effectively and for a long time. The most suited for Russian climatic conditions are the bitumen-polymer roofing and insulating materials like "Technoelast" and "Uniflex". The soldering technology allows the manufacturer to get rid of the huge bitum bowls, and to install the materials at low temperatures. The technical characteristics of these materials allow layering them in 1-2 layers instead of 3-4 of ruberoid.

The non-decaying base makes "Technoelast" and "Uniflex" materials are very strong, and the bitumen-polymer compound keeps these materials elastic in a wide range of temperatures. The mineral crumbles covering makes "Technoelast" and "Uniflex" covered roofs to look beautiful and finished.

A new flick of the 2001 roofing season is the enbettered bitumen material "Ecoflex" and rolled bitumen organic-based material "Bicrost".

Due to the polymer additions is "Ecoflex" has acquired the following features that make it different from the usual bitumen materials.

These are: the high quality of covering application; flexibility temperature on the beam with 25 mm radius is no higher than  $-5^{\circ}\text{C}$ ; heat resistance of  $+120^{\circ}\text{C}$ , that gives the hot weather no chance to melt or soften the material.



The rolls of “Ecoflex” have a round shape. They are easy rolling and easy to lie; the rolls’ ends are never broken and never need cutting.

“Bicrost” has a strong organic base that protects the material from early cracking.

As “Bicrost” has high steam penetrability, the roof covered with it is much less likely to produce bubbles even when covered upon the old, wet roof.

**Task 17. Answer the following questions.**

1. What materials does The Technocolor Group produce?
2. What is the main advantage of new roofing materials?
3. What material has a round shape?
4. What features made Ecoflex different from other roofing materials?
5. What allowed manufacturer to get rid of the huge bitum bowls?

**Task 18.a) In the text above find the sentence with the verb used in the Present Perfect Tense.**

**b) Write this sentence in interrogative and negative forms.**

**c) What tense form of verbs is in the other sentences?**

**Task 19. a) Read and translate the chain.**

1. The ruberoid
2. The ruberoid is low-effective.
3. The ruberoid, which is still popular, is low-effective.
4. The ruberoid, which is still popular in many regions of Russia, is low-effective.
5. The use of the ruberoid, which is still popular in many regions of Russia, is low-effective.
6. The use of the ruberoid, which is still popular in many regions of Russia, is low-effective for building and repair.
7. The use of the ruberoid, which is still popular in many regions of Russia, is low-effective for building and repair of low-inclined roofs.

**b) Make the chains from the other sentences.**

1. The price factor is very important when choosing the material.
2. The powerful production facilities and a developed structure of regional departments allow supplying the materials to the object quickly.

**c) Make your own one.**

**Task 20. Read and translate the text.**

### ***Plastics all over the world***

Nowadays plastics can be applied to almost every branch of building, from the laying of foundation to the final coat of paint.

A lot of decorative plastics now available have brought about a revolution in interior and exterior design. But plastics are used now not only for decoration. These materials are sufficiently rigid to stand on their own without any support. They can be worked with ordinary builders' tools.

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

**Task 21. Choose the correct variant and complete the sentences.**

1. Plastics can be applied ... (a) only in radio engineering, b) to almost every branch of building)
2. Decorative plastics have brought about ... (a) some advantages, b) a revolution in interior and exterior design).
3. Plastics are used ... (a) only for decoration, b) are sufficiently rigid to stand on their own without any support).
4. Laminate has been "developed for ... (a) only inside use, b) only outside use, c) both inside and outside use).
5. Laminate is impregnated with ... (a) thermo-setting resins, b) rubber).
6. The sandwich is pressed and subjected ... (a) to cold, b) to heat).
7. The laminate gives ... (a) a mild surface, b) tough surface).

**Task 22. Answer the following questions.**

1. Where can plastics be applied?
2. What advantages do plastics offer?
3. What does plastic material consist of?

**Task 23. Read and translate the text.**

### ***Bolts and Nuts***

One of the most common forms of "engineering components" is perhaps the bolt. It is used for fastening together any two or more parts of a machine which may require dismantling quickly in any emergency, such as in repair work.

The body of a bolt is called the "shank", one end of which has a "head", whilst the opposite end is "screw-threaded" to accommodate a "nut".

There are many forms of "heads", each of which is designed for a specific purpose. The most common type is the "hexagon". Incidentally, most types of spanners are made to fit the standard "hexagon-head" bolt.

The bolt is often fitted with a plain round "washer", which forms a sort of a "cushion" between the underside of the nut and the face of the work piece which it secures.

In some cases, in addition to an ordinary nut being fitted to a bolt, another nut is fitted, to provide extra security. The latter is called a lock-nut, and is usually half the height of an ordinary nut. Whenever a lock-nut is fitted, the bolt must be slightly longer, and its shank must be screw-threaded correspondingly to accommodate both the nut and lock-nut and a "washer", if one is used. A lock-nut and nut are "locked" together, causing extra pressure. In this way they are assisting in preventing the nut from unscrewed due to vibration.

In addition to the hexagonal type of nut square nuts are sometimes used.

Another type of nut is the wing-nut, which is intended for hand use, and does not require a spanner for tightening it.

A further kind is a thumb-nut, which also does not require a spanner, but is intended to be screwed between the thumb and fingers.

**Task 24. Answer the following questions.**

1. What is the bolt used for?
2. How many types of nuts do you know?
3. What is a lock-nut used for?
4. What is the usual height of a lock-nut?
5. Does a wing-nut require a spanner for tightening it?
6. What kind of nut is a thumb-nut?

**Task 25. Make the sentences with the following word combinations.**

to be designed for; many forms; in addition to another; to provide extra security; to be intended for hand use; it does not require

**Task 26. Make the questions beginning with the words given in brackets.**

1. The use of the metric system in the USA is increasing. (Where.....)
2. The rate of housing construction goes up year after year. (What.....)
3. Today one can see tall blocks of flats and huge industrial enterprises in the Far North. (Can.....)
4. They are interested in the organization of production and utilization of new building materials. (Who.....)
5. Great mineral resources have been found in the north of our country. (Where...)

**Task 27. Use the suitable tense-form of the verbs.**

Air-conditioning (to be) the bringing of air in a building to a desired temperature, purity, and humidity throughout the year to maintain healthy and comfortable conditions.

Air-conditioning may (to be, to divide) into two main sections: one for the processing of materials in industry; the other for human comfort. It has been (to find) that there (to be) an optimum condition of temperature and humidity at which the processing of different materials may be (to carry) out with the minimum of wastage and the maximum of goods of specification quality. The system (to be) therefore designed to produce air of predetermined temperature and moisture content and (to keep) it so despite all external influences. Such air (to be, to filter) free of foreign material.

Conditioning air for human comfort may also (to be, to divide) into two main sections - winter and summer. Frequently, the systems installed in office buildings (to provide) control during both seasons. Complete air-conditioning (to provide) the following services:

- filtration of the air both in winter and summer (to remove) dust.
- circulation of the air at low velocity and with proper diffusion (to prevent) draughts and maintain a uniform temperature and humidity at all parts of the inhabited space.
- introduction of enough fresh air from the outside atmosphere. Fourth, heating of the air in winter.
- cooling of the air in summer below the outside atmosphere.
- humidifying the air in winter to a relative humidity of at least 20-25 per cent.
- dehumidifying the air in summer to a relative humidity not exceeding 55 per cent

**Task 28. Complete the dialogue.**

A: Hello. It's "Skilled Arms" office. Speaking.

B: Good morning. I'm \_\_\_\_\_ I want to speak to your manager.

A: I'm at your service.

B: In fact, I want my \_\_\_\_\_ to be repaired.

A: First of all, you should decide what colors you prefer.

B: I think something natural. May be \_\_\_\_\_

A: Good. One more question. The walls. What covering do you want?

B: It's better \_\_\_\_\_

A: And the ceiling?

B: \_\_\_\_\_

A: The last question. What about the floor?

B: \_\_\_\_\_ I'm interested, how long will it take?

A: Well, first our designer \_\_\_\_\_. Then \_\_\_\_\_ Does it suit you?

B: \_\_\_\_\_

## ***Unit V. Buildings of architectural interest***

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

One of the finest masterpieces of Russian architecture of the Moscow Kremlin rises at the very edge of Borovitsky Hill. This is the Archangel Cathedral. As legend goes, back in the 13th century a wooden church stood in its place, one dedicated to the Archangel Michael, the recognized patron of the Russian princes in their military affairs. In 1333, a whitestone church was erected on to become the main princely cathedral. In 1340, Grand Prince of Moscow Ivan Kalita was buried here. From that time the cathedral served as a necropolis.

In the late 15th century, Moscow underwent another round of reconstruction and embellishment. In 1505-1508, a new Archangel Cathedral replaced the old one. Its erection marked the completion of the ambitious construction project in the late 15th - early 16th century the Moscow Kremlin. Built to the design of Alevisio Novy from Italy, the Archangel Cathedral combines typical features of the architecture of Venice of the Renaissance period, Byzantium and Early Russia.

The Archangel Cathedral, a five-domed six-pillared cathedral, is built in brick, while its splendid decor is laid in white stone. It was for the first time in Russia that elements of the classical system were employed so extensively and consistently in the design of the facades. The intricately shaped cornices produce the effect of a two-storied structure, while double-tiered pilasters topped with carved capitals articulate the facades vertically. The architect paid special attention to the western wall, accenting with whitestone portals the main cathedral entrance which recedes into a deep loggia. The portals were decorated with carved ornament running over a blue painted ground. In 1980 the carved ornament was cleaned and the original color was restored.

The Archangel Cathedral had a considerable impact on the further development of Russia architecture. Many buildings were modeled on it in the 16th and 17th centuries.

The Archangel Cathedral will remain forever a living witness of the history of the Kremlin, Moscow and the Russian state and immortal evidence of the talent of its builders and artists who were able to express in architectural forms and painted images the people's love to their country.

### ***Task 2. Write out the text above the events which took place in the indicated period of time.***

1. In the 13th century
2. In 1333
3. In 1340
4. In the late 15th century
5. In 1505-1508
6. In the late 15th - early 16th century
7. During the 16th and 17th centuries
8. In 1980

### ***Task 3. Speak your friend about the Archangel Cathedral. Use words and expressions given below.***

at the very edge of, a wooden church, to replace, to combine typical features of, splendid decor, to produce the effect, to be decorated with, interior, a living witness.

***Task 4. Use the suitable tense-form of the verbs.***

Much time (to pass) before our houses and buildings (to become) as they (to be) now. Specialists (to divide) buildings into some groups according to the architectural styles. (to let) us (to list) them. They (to be): rococo, neo-Renaissance, baroque, classicism, modern, gothic.

Gothic style (to appear) in the second part of the 12th century. Aesthetic tasks of this style (to be): the form of beauty is the expression of unit of the world. Three important assurances of gothic culture (to determine) by the following words: town, knighthood, carnival.

In the end of the 16th century in painting, sculpture, architecture, literature (to form) a new style which (to call) a new art or neo-Renaissance. It (to unite) different treats: from the academicians of Baroque to the admires of Rubens' manner in painting. One of the first artists who (to offer) this principle (to be) the great master – Michelangelo.

The word “rococo” (to come) from French word “*coquille*” that (to mean) “shell” fragile asymmetrical nature form. But this term (to become) the name of this style only in the second half of the 19th century. The culture of that century (to receive) from the last century special aesthetic consciousness in which artistic taste (to be) more important than other man's qualities. The outstanding master of rococo in France (to be) Huan-Antonio Vatto.

***Task 5. Read and translate from Russian into English.***

Зимний дворец был построен в Санкт-Петербурге в 1754- 1762 г.г. архитектором В.В. Растрелли и является памятником русской архитектуры в стиле барокко. Его фасады обращены к Неве и Дворцовой площади. Парадность здания подчеркивается пышной отделкой фасадов и помещений. До революции 1917 г. Зимний дворец был резиденцией российских императоров, а в 1918 г. здание передано Эрмитажу.

***Task 6. Read and translate the text.***

***The Capitol***

The Capitol is the seat of the US Congress. Building of the Capitol in Washington, D.C., was begun in 1793. Its cornerstone was laid by the President with the great pomp. Music sounded and artillery fired salutes as George Washington declared the stone "well and truly" laid. In 1800 the building was partly completed, and Congress, removing from Philadelphia, met here, for the first time in the new capital. Here the manifold political forces affecting the destinies of the land met in dramatic conflicts. The Capitol Building dominates all Washington. It stands on the crest of a hill rising above the Potomac River. The site was chosen by Pierre L'Enfant when he sought to layout the capital. The Capitol consists of a central building crowned by a great dome and connected at each end by galleries with a large wing. The north wing contains the Senate Chamber, and the south wing - the House of Representatives. The great central dome appears too heavy for the low facade. Topping the dome is the 19-foot bronze statue of Freedom by Thomas Crawford. She watches, calm and unruffled, over all the things that are done in her name in the building below. The 36 columns which surround the lower part of the dome represent the states in the Union at the time this impressive structure was designed. Beneath the dome is a monumental hall called the Rotunda, decorated with works of art relating to American history.

***Task 7. Read and translate the text.***

***The Lincoln Memorial***

The first organized effort to erect a monument to Abraham Lincoln in Washington came two years after his death in 1867. A special association appeared for subscriptions and prepared plans for a monument, but nothing was accomplished. The years passed and it was not until 1911 that Congress passed the legislation on that issue. The Lincoln Memorial was set high on an artificial plateau and consecrated on Memorial Day, May 30, 1922. The memorial was presented to President Warren Harding who accepted it for the United States.

The memorial is of white marble. Its architectural lines are similar in plan to those of the Greek Parthenon, the temple to the goddess Athena on the Acropolis in Athens. The memorial building would not seem out of place set down among the great antiquities of Greece and Rome. Its beauty and purity of design equal the best of the ancient times. The structure itself has a motif that symbolizes the Union. The 36 columns surrounding the walls represent the 36 States in the Union at the time of Lincoln's death. On the attic walls are the names of the 48 States comprising the Union in 1922 and their dates of admission. The addition of Alaska and Hawaii to the Union in 1959 is noted by an inscription on the terrace leading to the memorial.

The memorial chamber contains a colossal statue of Lincoln and two huge inscribed stone tablets. On the south wall is inscribed the Gettysburg Address, and on the north wall, Lincoln's Second Inaugural Address. But the dominant feature the memorial chamber is the magnificent, realistic figure of Lincoln, seated in the centre of the open temple, facing the Capitol. The marble statue, nineteen feet tall, was designed and executed by sculptor Daniel Chester French. It represents Lincoln as the War President. The statue embodies the qualities that are forever associated with the great man - compassion, warmth, strength of character and an ineffable sadness. The two murals on the north and south walls represent, allegorically, principles of conduct and thought evident in the life of Abraham Lincoln. The mural above the Gettysburg Address on the south wall shows an Angel of Truth freeing a slave on the left and right, groups of figures represent Justice and Immortality. The mural above the Second Inaugural Address on the north wall depicts the unity of North and South; on the left and right, groups of figures symbolize Fraternity and Charity.

***Task 8. Find the sentences with the verbs in Passive Voice and write interrogative forms of these sentences.***

***Task 9. Make the plan of the text above.***

***Task 10. Answer the following questions.***

1. Where did primitive people look for protection?
2. What are the earliest types of human dwellings?
3. Why are the houses in towns higher than in countries?
4. What house would you like to live in?
5. Is it necessary to reconstruct old buildings or ruin them?
6. What architectural style is the most typical for our town?

***Task 11. Give the examples of buildings constructed in different building styles. Use the plan:***

- 1) when and where it was built;
- 2) whom it was designed by;
- 3) construction materials which were used;
- 4) how the building used before and how it is used now;
- 5) why you think it should be considered one of the wonders of the world.

## ***TEST***

### ***1. Write all forms of the verbs***

to place  
to fix  
to join  
to build  
to destroy  
to lay

### ***2. Write these verbs in indicated forms of Active Voice***

to exist (Present Cont.)  
to prevent (Future Cont.)  
to erect (Past Ind.)  
to serve (Present Perfect)  
to place (Future Perfect)  
to keep (Future Ind.)

### ***3. Write these forms in the same tense of Passive Voice***

uses  
served  
will restore  
had erected  
has existed  
was joining  
is laying

### ***4. Translate into English***

соединенный  
разрушающий  
строил  
был использован  
размещать  
используя

построенный  
предотвративший  
служащий

**5. Make new words from given below, using suffixes –ing, -er, -al, -tion**

to build  
to lay  
plaster  
engineer  
industry  
to construct  
to dwell  
architecture

**6. Translate into Russian**

artificial building material  
the walls may be solid  
coats of plaster  
to use natural stone  
below ground level  
the building must be designed  
the size of dwelling  
to erect column

**7. Choose the correct variant and complete the sentences**

1. A brick is (a building unit; a destroying material).
2. A brick may be made of (concrete, wood).
3. Plain concrete is (strong, weak) in compression.
4. Plastics can be applied (only in radio engineering; to almost every branch of building).

**8. Make questions to the sentences, beginning with the words in brackets**

1. His work is finer than the carpenter's. (Whose...?)
2. There are some parts of a building. (How many...?)
3. They have decided about the size of the dwelling. (What.... about?)
4. We were erecting columns. (Who...?)
5. The stone is used for foundations. (What...?)

**9. Choose the right synonym to the verb in the left column**

To destroy	To construct, to ruin, to make
To use	To finish, to go, to treat
To erect	To keep, to construct, to exist,
To restore	To cover, to make, to recover
To join	To unite, to bring, to borrow
To place	To have, to get, to put in
To lay	To get up, to put down, to start
To repair	To think, to lay, to put right

**10. Fill in the blanks in these sentences using the words given below**



Tradesman  
Electricity

carpenter  
framework

industrial  
storeys

1. The floors divide a building into\_\_\_\_\_.
2. The stability of the structure depends upon the\_\_\_\_\_.
3. Every building should be provided with \_\_\_\_\_.
4. The buildings are divided into two classes: buildings for housing and \_\_\_\_\_buildings.
5. A skilled worker is called\_\_\_\_\_.
6. \_\_\_\_\_ is a man who erects wood frames, fixed wood floors.

**11. Write these sentences in Passive Voice**

1. They dried bricks on the sun.
2. Our company is erecting the beautiful building.
3. Those workers will restore that old house.
4. We use many modern building materials nowadays.

**12. Arrange the words into sentences.**

1. interior, a lot, there, design, and, plastics, of, are, available, exterior, decorative, for.
2. specific, many, a, heads, are, of, for, purpose, forms,, designed.
3. rooms, each, provided, and, with, flat, for, is, the, the, for, kitchen, balcony, living, a, one.
4. methods, industrialized, large-panel, one, construction, is, of, building.

**13. Answer the questions.**

- a) What building materials are completely new ones?
- b) What are the artificial building materials?
- c) What are the natural building materials?
- d) What materials are fire-resisting?
- e) What materials are not used for interior decorations?

**14. Make sentences.**

The floor The walls The ceiling	can be are is	painted papered whitewashed decorated covered	in by with	white, blue, etc. thick carpet. wood. (plastic, wood) panels. lamine. natural stone.
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**15. Choose the terms.**

**ceramics, brick, laminate, concrete, glass**

- a) is a strong material manufactured from many layers of paper or textile impregnated with thermosetting resins;
- b) is a mixture of cement with sand or gravel;
- c) is made from soda, limestone and sand; which are heated, then the liquid mass does not become hard at once;
- d) may be made of burnt clay, of concrete, of mortar or of a composition of sawdust and other materials;
- e) is produced of clay when mixed with water to form a putty from which various articles can easily be molded, dried and then baked.

### 16. Complete the sentences.

- a) I will use..... to make the floor in my house.
- b) I will use..... to cover the floor in my house.
- c) I will use.....to make the walls in my house.
- d) I will use..... to make the ceiling in my house.
- e) I will use.....to cover the roof in my house.

### Grammar

#### Глагол to be в Simple Active

Present	Past	Future
(I) am (he, she, it) is (we, you, they) are	was (ед. ч.) were (мн. ч.)	shall be (1-е л.) will be

#### Глагол to have в Simple Active

Present	Past	Future
have (got) has (got)	had	shall have will have

#### Оборот there + to be в Simple Active

Present	Past	Future
there is (ед.ч.) there are (мн.ч.)	there was (ед.ч.) there were (мн.ч.)	there will be

#### Степени сравнения прилагательных

	Положительная	Сравнительная	Превосходная
I	long easy	longer easier	(the) longest (the) easiest
II	interesting	more interesting	(the) most interesting
III	good bad much, many little	better worse more less	(the) best (the) worst (the) most (the) least

### *Времена группы Simple Passive*

<i>to be + Participle II</i>	
Infinitive	to be written, to be translated
Present Past Future	The letter is written/translated. The letter was written/translated. The letter will be written/translated.

### *Сводная таблица модальных глаголов и их эквивалентов*

	Present	Past	Future
Долженствов ание	I must meet him.  I have to meet him.  I am to meet him. I <b>should</b> meet him.	I <b>had</b> to meet him.  I <b>was</b> to meet	I <b>shall have to</b> meet him.  I'll be to meet him.
Способность или возможность совершения действия	He <b>can</b> help you.  He is able to help you.	He <b>could</b> help you.  He was able to help you.	He <b>will be able to</b> help you.
Разрешение или возможность (вероятность)	I may use this device.  I am allowed to use the device.	I might use this device  I was allowed to use the device.	I <b>shall be allowed to</b> use the device.

**Таблица времен группы Simple Active**

Форма	Present Simple	Past Simple	Future Simple
Утвердительная	My friends study French. He speaks English.	My friends <b>studied</b> French at school. He <b>spoke</b> English at the conference.	My friends <b>will study</b> French at the Institute. The teacher <b>will speak</b> about our English exam.
Вопросительная	<b>Do</b> your friends study French?  <b>Does</b> he speak English?	<b>Did</b> your friends study French at school? <b>Did</b> he speak English at the conference?	<b>Will</b> your friends study French at the Institute?  <b>Will</b> the teacher speak about our English exam?
Отрицательная	My friends <b>don't</b> study French. He <b>doesn't</b> speak English.	My friends <b>did not</b> study French. He <b>didn't</b> speak English at the conference.	My friends <b>won't study</b> French at the Institute. The teacher <b>won't speak</b> about our English exam.

**Структура специальных вопросов**

Вопросительные слова	Вспомогательный глагол	Подлежащее и определение к нему_	Смысловой глагол в форме инфинитива	Другие члены предложения
What Where When	do did will	you he your sister	do go return	in the evening? yesterday? home?

*Таблица времен группы Progressive Active*

Форма	Present Progressive	Past Progressive	Future Progressive
Утверд ительная	<p>The <b>are having</b> an English class.</p> <p>He <b>is still writing</b> an exercise.</p>	<p>They <b>were having</b> an English class when I came to see them.</p> <p>He <b>was writing</b> an exercise from 6 till 8 o'clock.</p>	<p>They <b>will be having</b> an English class tomorrow at 9 o'clock.</p> <p>He <b>will be writing</b> an exercise from 6 till 8 o'clock tomorrow.</p>
Вопроси тельная	<p><b>Are they having</b> an English class?</p> <p><b>Is he still writing</b> an exercise?</p>	<p><b>Were they having</b> an English class when I came to see them?</p> <p><b>Was he writing</b> an exercise from 6 till 8 o'clock.</p>	<p><b>Will they be having</b> an English class tomorrow at 9 o'clock?</p> <p><b>Will he be writing</b> an exercise from 6 till 8 o'clock tomorrow?</p>
Отрица тельная	<p>They <b>aren't having</b> an English class, they are having a Russian class.</p> <p>He <b>isn't writing</b> an exercise, he is reading a book.</p>	<p>They <b>weren't having</b> an English class when I came to see them, they were having a Russian <b>class</b>.</p> <p>He <b>wasn't writing</b> an exercise from 6 till 8 o'clock, he was reading a book.</p>	<p>They <b>will not be having</b> an English class tomorrow at 9 o'clock, they will be having a Russian class.</p> <p>He <b>won't be writing</b> an exercise from 6 till 8 o'clock tomorrow, he'll be reading a book.</p>

**Таблица времен группы *Perfect Active***

Форма	Present Perfect	Past Perfect	Future Perfect
Утвердительная	I <b>have sent</b> the letter.	I <b>had</b> already <b>sent</b> the letter by 6 o'clock yesterday.	I <b>shall have sent</b> the letter by tomorrow evening.
Вопросительная	<b>Have</b> you <b>sent</b> the letter?	<b>Had</b> you <b>sent</b> the letter by 6 o'clock yesterday?	<b>Will</b> you <b>have sent</b> the letter by tomorrow evening?
Отрицательная	I <b>have not sent</b> the letter yet.	I <b>had not sent</b> the letter by 6 o'clock yesterday.	I <b>shall not have sent</b> the letter by tomorrow evening.

**Таблица времен *Simple, Progressive, Perfect in Passive Voice***

	Simple to be + Participle II	Progressive to be + being + Participle II	Perfect to have + been + Participle II
Present	The letter is translated	The letter is being translated	The letter has been translated
	Is the letter translated?	Is the letter being translated?	Has the letter been translated?
	The letter isn't translated	The letter isn't being translated	The letter hasn't been translated.
Past	The letter was translated	The letter was being translated	The letter had been translated
	Was the letter translated?	Was the letter being translated?	Had the letter been translated?
	The letter wasn't translated.	The letter wasn't being translated	The letter hadn't been translated?
Future	The letter will be translated	Не употребляются.	The letter will have been translated
	Will the letter be translated?		Will the letter have been translated?
	The letter won't be translated		The letter won't have been translated.

**Таблица форм причастий**

	Participle		Participle II
	Active	Passive	changed 1 Определение: <i>изменяемый, измененный</i> 2) обстоятельство: <i>когда (его) изменили, так как (его) изменили</i>
Simple	changing 1) определение: <i>изменяющий(ся) (вищий) (ся)</i> 2) обстоятельство: <i>изменя(сь)</i>	being changed 1) определение: <i>изменяющийся, изменяемый</i> 2) обстоятельство: <i>будучи измененным</i>	
Perfect	having changed обстоятельство: <i>изменив(шись)</i>	having been changed обстоятельство: <i>когда (его) изменили, после того как (его) изменили</i>	

**Таблица производных слов от *some, any, no, every***

Местоимения	+ thing	+body, one	+where	Употребляются
some <i>некоторый какой-то какой-нибудь несколько</i>	something <i>что-то, что-нибудь</i>	somebody someone <i>кто-то кто-нибудь</i>	somewhere <i>где-то, куда-то, где-нибудь, куда-нибудь</i>	в утверд. . предл.
any 1) <i>всякий любой</i> 2) <i>какой-нибудь</i>	anything 1) <i>всё</i> 2) <i>что-то</i> 3) <i>что-нибудь</i>	anybody anyone <i>1) всякий, 2) кто-то, кто-нибудь</i>	anywhere 1) <i>везде,</i> 2) <i>где-нибудь, куда-нибудь</i>	1) в утверд. 2) в вопросит, предл.
no, not any <i>никакой + не</i>	nothing (not anything) <i>ничто + не ничего</i>	nobody (not anybody), no one <i>никто + не</i>	nowhere not anywhere <i>нигде, никуда + не</i>	в отрицат. предп.
every <i>всякий, каждый</i>	everything <i>всё</i>	everybody everyone <i>все</i>	everywhere <i>везде, повсюду</i>	в утверд., вопросит, и отрицат. предл.

### *Словообразовательные аффиксы*

Существительные - ion / - sion /-tion - er / -or -ing -ment -ty / -ity -ance / -ence -ness -ure / -ture	- discussion, transmission, combination - writer, inspector - opening - development - activity - importance, difference - darkness - mixture
Прилагательные -ic -ive -able / -ible -ant / -ent -ous -al -ful -less -un / -in / -ir / -il / -im	- democratic - progressive - valuable, accessible -resistant, different - dangerous - central - hopeful - hopeless - uncomfortable, indirect, irregular, illogical, impossible
Глагол -ize re-	- to characterize - to rewrite



<i><b>Infinitive</b></i>	<i><b>Past</b></i>	<i><b>Participle II</b></i>	<i><b>Translation</b></i>
arise	arose	arisen	возникать
awake	awoke	awaked	будить, проснуться
be	was, were	been	быть
bear	bore	born	носить, родить
beat	beat	beaten	бить
become	became	become	стать
begin	began	begun	начать
bend	bent	bent	согнуться
bind	bound	bound	связать
bite	bit	bitten	кусать
blow	blew	blown	дуть
break	broke	broken	ломать
bring	brought	brought	приносить
build	built	built	строить
burst	burst	burst	разразиться, взорваться
buy	bought	bought	покупать
catch	caught	caught	ловить, поймать
choose	chose	chosen	выбирать
cut	cut	cut	резать
deal	dealt	dealt	иметь дело
dream	dreamt	dreamt	мечтать
do	did	done	делать
draw	drew	drawn	тащить, рисовать
drink	drank	drunk	пить
drive	drove	driven	ехать
eat	ate	eaten	есть, кушать
fall	fell	fallen	падать
feed	fed	fed	кормить
fight	fought	fought	сражаться
find	found	found	находить
fly	flew	flown	летать
forbid	forbade	- forbidden	запретить
forget	forgot	forgotten	забыть
forgive	forgave	forgiven	прощать

freeze	froze	frozen	замёрзнуть, замораживать
get	got	got	получить
give	gave	given	дать
go	went	gone	идти
grow	grew	grown	расти
hang	hung	hung	висеть, повесить
have	had	had	иметь
hear	heard	heard	слушать
hit	hit	hit	ударить, попасть
hold <sup>1</sup>	held	held	держать
hurt	hurt	hurt	причинять боль
know	knew	known	знать
keep	kept	kept	держать
lay	laid	laid	класть, положить
lead	laid	laid	вести
leap	leapt/leaped	leapt/leaped	прыгать
leave	left	left	оставлять
lend	lent	lent	одолжить
let	let	let	пустить, дать
lie	lay	lain	лежать
lose	lost	lost	терять
make	made	made	делать
meet	met	met	встречать
pay	paid	paid	платить
put	put	put	класть
read	read	read	читать
ride	rode	ridden	ездить верхом
ring	rang	rung	звонить
rise	rose	risen	поднимать
run	ran	run	бежать
say	said	said	говорить, сказать
see	saw	seen	видеть
sell	sold	sold	продавать
send	sent	sent	послать
set	set	set	устанавливать
shake	shook	shaken	трясти

shine	shone	shone	светить, сиять
shoot	shot	shot	стрелять, давать победы
show	showed	shown/showed	показывать
sing	sang	sung	петь
sink	sank	sunk	опускаться
sit	sat	sat	сидеть
sleep	slept	slept	спать
slide	slid	slid	скользить
speak	spoke	spoken	говорить
spend	spent	spent	тратить
steal	stole	stolen	украсть
stick	stuck	stuck	втолкнуть, приклеить
strike	struck	struck/stricken	ударять, бастовать
swear	swore	sworn	клясться
swim	swam	swum	плавать
take	took	taken	брать
teach	taught	taught	учить
tell	told	told	говорить
think	thought	thought	думать
throw	threw	thrown	бросить
wake	woke	woken	просыпаться, будить
wear	wore	worn	носить
weep	wept	wept	плакать
win	won	won	выигрывать
wind	wound	wound	заводить
write	wrote	written	писать

### ***Literature***

1. Гарагуля С.И. Английский язык для студентов строительных специальностей. Learning Building Construction in English : учебное пособие / С.И. Гарагуля. – Ростов н/Д ; Феникс, 2015 – 347 с.