**КОНТРОЛЬНЫЕ ЗАДАНИЯ**

**КОНТРОЛЬНАЯ РАБОТА 1**

**1.** Перепишите и письменно переведите на русский язык следующие предложения. Помните, что объектный и субъектный инфинитивные обороты соответствуют придаточным предложениям.

1) We know new types of concrete to have found wide application in building.

2) Laminate is known to be impregnated with thermosetting resins.

3) Plastics to be designed for interior use may be recommended as structural material for window and door frames.

**2.** Перепишите и письменно переведите на русский язык следующие предложения. Обратите внимание на перевод зависимого и независимого (самостоятельного) причастных оборотов.

1) Wood being easily subjected to fire, wooden houses were immediately replaced by the stone ones.

2) Reinforced concrete showing great strength finds wide usage in building construction.

3) Having built a new prefabrication plant, we increased the output of prefabricated structures and units.

**3.** Перепишите и письменно переведите на русский язык следующие сложные предложения, Обратите внимание на перевод условных предложений.

1) If the house had been built in stone it would not have been destroyed by the fire.

2) It would be impossible to erect the new bridge without a new device.

3) If the quantity and the distribution of reinforcement are carefully considered, high strength reinforced concrete will be produced.

**4.** Прочитайте и устно переведите с 1-го по 8-й абзацы текста. Перепишите и письменно переведите 6, 7 и 8-й абзацы.

Пояснения к тексту

froth − пена; пениться

impermeability − непроницаемость; герметичность

kiln −печь для обжига

mortar −раствор

resist − сопротивляться

sawdust −опилки

subject (to) − подвергать; подчинять

BUILDING MATERIALS

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

2) Timberis provided by different kinds of trees. Timber used for building purposes is divided into two groups called softwoods and hardwoods. Timber is at present not so much used in building construction, as in railway engineering, in mining and in the chemical industry where it provides a number of valuable materials.

3) Brickis best described as a "building unit". It may be made of clay by moulding and baking in kilns, of concrete, of mortar or of a composition of sawdust and other materials. In shape it is a rectan­gular solid.

4) Metals: Aluminum,principally in the form of various alloys, is highly valued for its durability and especially for its light weight, while brassis frequently used for decorative purposes in facing.

5) Steelfinds its use in corrugated sheets for roofing, for girders, frames, etc. Various shapes are employed in construction.

6) Plasticsare artificial materials used in construction work for a vast number of purposes. Nowadays plastics can be applied to almost every branch of building, from the laying of foundation to the final coat of paint. Plastics have some good advantages as they are lighter than metals, not subject to corrosion, and they can be easier machined. Besides, they are inflammable, they can take any colour and pattern, and they are good electrical insulators. Moreover, they possess a high resistance to chemical action.

7) Laminateis 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.

8) Foamed glassis a high-porosity heat insulating material, available in block made of fine-ground glass and a frothing agent. Foamed glass is widely used in prefabricated house building, to ensure heat insulation of exterior wall panels, and in industrial construction.

**5.** Прочитайте 1, 2, 3, 4 и 5-й абзацы текста и ответьте письменно на следующие вопросы:

1) What groups is timber divided into?

2) Where is timber mostly used?

3) What is brick made of?

4) What properties does aluminum have?

5) Where does steel find its application?

**КОНТРОЛЬНАЯ РАБОТА 2**

**1.** Перепишите и письменно переведите на русский язык следующие предложения. Помните, что объектный и субъектный инфинитивные обороты соответствуют придаточным предложениям.

1) All building materials to be used for structural purposes are divided into 3 main groups.

2) We believe this new building material to have great future in the field of housing construction.

3) Wood and bricks are proved to be the most ancient building materials.

**2.** Перепишите и письменно переведите на русский язык следующие предложения, обратите внимание на перевод зависимого и независимого (самостоятельного) причастных оборотов.

1) A new type of reinforced concrete having been tested, the builders began to use it widely.

2) Having invented reinforced concrete our designers have got one of the strongest building materials.

3) The new material finding its way in construction now is called chemically resistant concrete.

**3.** Перепишите и письменно переведите на русский язык следующие сложные предложения. Обратите внимание на то, как переводятся условные предложения.

1) It would be impossible to carry out any intensive programme in construction without new building materials.

2) If a man builds a house of stone and wood, the construction is called a non-fireproof one.

3) If plastics had not been developed the builders would have been deprived of one of the most attractive finishing materials.

**4.** Прочитайте и устно переведите с 1-го по 6-й абзацы текста. Перепишите и письменно переведите 1, 2 и 3-й абзацы.

Пояснения к тексту

aggregate − заполнитель, инертный материал (бетона)

load − груз, нагрузка

crack −треск, трещина

cushioning material − амортизирующий материал

store −запас, склад

tensile − растяжимый

MODERN BUILDING MATERIALS

1) Concreteis perhaps the most widely spread building material used nowadays. Concrete is an artificial stone, made by thoroughly mixing such natural ingredients or aggregates as cement, sand and gravel or broken stone together with sufficient water to produce a mixture of the proper consistency. It has many valuable properties. It sets under water, can be poured into moulds so as to get almost any desirable form, and together with steel in reinforced concrete it has very high strength, and also resists fire. Prestressed concrete is most widely used at present while prefabricated blocks are employed on vast scale for skeleton structures.

2) Aggregates (or cushioning materials)can be defined as a mass of practically inert mineral materials, which, when surrounded and bonded together by an active binder, form the rock. This rock is denoted by the general term “concrete”.

3) Aggregates have three principal functions in the concrete: they provide relatively cheap filler for the concreting material, or bind­er; they provide a mass of particles which are suitable for resisting the action of applied loads, of abrasion, of percolation of moisture through the mass, and of climate factors; they reduce volume changes resulting from the action of the setting and hardening of the concrete mass.

4) All aggregates, both natural and artificial, which have suffi­cient strength and resistance to weathering, and which do not con­tain harmful impurities may be used for making concrete.

5) Prestressed concreteis not a new material. Its successful use has been developed rapidly during the last two decades. Concrete is strong in compression but weak when used for tensile stresses. In prestressed concrete steel is not used as reinforcement, but as a means of producing a suitable compressive stress in the concrete. Therefore any beam (or member) made of prestressed concrete is permanently under compression, and is consequently devoid of crack under normal loading, or so long as the "elastic limit" is not exceeded.

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

**5.** Прочитайте 4, 5 и 6-й абзацы текста и ответьте письменно на следующие вопросы:

1) What aggregates may be used for making concrete?

2) What are the properties of concrete?

3) What is the purpose of using steel in the prestressed concrete?

4) Where is prestressed concrete employed now?