

**Контрольно-оценочные средства для проведения текущего
контроля
по ОГСЭ.03 Иностранный язык в профессиональной
деятельности
(3 курс, 6 семестр 2023-2024 уч. г.)**

Текущий контроль №1

Форма контроля: Практическая работа (Опрос)

Описательная часть: Письменная практическая работа

Задание №1

Exercise 1. Match the adjectives in column A with the nouns in column B to form meaningful phrases and then identify them at the sentence level in the text. It will help you understand the text in detail.

A	B
1) stiff	a) amount
2) electrical	b) steel
3) various	c) element
4) ferrous	d) conductivity
5) ductile	e) insulators
6) brittle	f) materials
7) indispensable	g) ceramics
8) stainless	h) cast iron
9) frequent	i) properties
10) large	j) metals

DIFFERENT KINDS OF ENGINEERING MATERIALS

Materials played a major role in the development of societies. Civilizations were named by the level of their materials development, e.g. the Stone Age, the Bronze Age, and the Iron Age. The earliest humans had an access to only a very limited number of natural materials. Modern technologies have made it possible to produce new materials. We believe more than 50,000 materials with specialized properties to have been developed by now. Materials science encompasses various classes of materials, but the traditional groups of engineering materials are metallic materials (metals and alloys) and non-metallic materials (polymers, ceramics, etc.). Metallic materials include ferrous (those that contain iron) and non-ferrous (those that do not contain iron) metals. It should be noted that while Powered by TCPDF

(www.tcpdf.org) 128 describing alloys which are metallic materials it is possible to use the term “metals”. The most common ferrous metals are cast iron and steel, which are both alloys. Different elements in alloys influence properties of materials: large amount of carbon in cast iron increases its brittleness; stainless steels containing nickel or chromium do not rust; steels, which contain tungsten or cobalt, are extremely hard, etc. We consider the most widely used non-ferrous metals to be aluminium and copper. Aluminium alloys are widely used in engineering structures and components where light weight or corrosion resistance is required. Copper is a ductile, malleable metal with a very high thermal and electrical conductivity. It is a frequent element of various metal alloys: brass (copper and zinc), bronze (copper and tin/lead). Polymers are representatives of non-metallic materials. One of the best known natural polymers is rubber. However, most of the polymers used in industry are not natural but synthetic; they are generally called ‘plastics’. Plastics can be divided in two categories: thermoplastics and thermosets. Thermoplastics can be heated and moulded numerous times. Common engineering thermoplastics are ABS (acrylonitrile butadiene styrene); polycarbonate; PVC (polyvinylchloride). Thermosets can be heated and moulded only once, they cannot be remoulded. The most common engineering thermosets are epoxy resins and polyamides. The properties of plastics are indispensable: they are lightweight, hard, easy to shape and colour, flexible, non-rusting, relevantly cheap, etc. Ceramic materials are inorganic, non-metallic materials which are formed by the action of heat and subsequent cooling. Clay was one of the earliest materials used to produce ceramics, but many different ceramic materials are now being used in domestic and industrial products. Ceramics tend to be strong, stiff, brittle, chemically inert. They are non-conductors of heat and electricity, but still their properties vary widely. For example, porcelain is widely used to make electrical insulators, but some ceramic compounds made from a metal and a non-metal are superconductors. Thus, at present a lot of engineering materials are available to engineer, who has to choose the one best suited to serve the given purpose.

Оценка	Показатели оценки
3	Количество правильных ответов 7.
4	Количество правильных ответов 8.
5	Количество правильных ответов 9-10.

Задание №2

Exercise 1. Make up your own story about engineering materials according to the following points of the plan. The words and phrases are supposed to make your story logical and interesting.

1. Various Classes of Materials

- Materials have played
- Civilizations were named
- Early humans had Modern technologies made
- Materials science encompasses
- The traditional groups of engineering materials are

2. Metallic Materials

- Metallic materials include
- The most common ferrous metals are
- Different elements in alloys influence
- The most common non-ferrous metals are

3. Polymers

- One of the best-known polymers is
- Synthetic polymers are called
- Plastics can be divided

4. Ceramics

- Ceramics are formed
- Ceramics tend to be

5. Choosing Materials

- A lot of engineering materials are
- Engineers have to choose

Оценка	Показатели оценки
3	Рассказ составлен не полностью, но правильно.
4	Рассказ составлен полностью, но с ошибками.
5	Рассказ составлен полностью и правильно.

Задание №3

1. **Измените форму прилагательных в следующих сочетаниях так, чтобы получившиеся сочетания отражали изменение в процессе производства в лучшую сторону.**

Переведите сочетания на русский язык: complex component, large machine, accurate shape, a small number of operations, little waste, new techniques, simple unit, efficient manufacture

1. Model: wasteful process — less wasteful process

TEXT A. CHANGES IN MATERIALS TECHNOLOGY

Since the technology of any age is founded upon the materials of the age, the era of new materials will have a profound effect on engineering of the future.

Not only new materials, but related, and equally important, new and improved and less wasteful processes for the shaping, treating and finishing of both traditional and new materials are continuously being developed.

It is important that an engineer should be familiar with them. These include casting, injection molding and rotational molding of components of ever increasing size, complexity and accuracy; manufacture of more complex components by powder metallurgy techniques; steel forming and casting processes based on new, larger and more mechanized machines, giving reduced waste and closer tolerances; the avoidance of waste in forging by the use of powder metallurgy or cast press forms and new finishing processes for

metals and plastics, just to name a few. A high proportion of these processes is aimed at the production of complex, accurate shapes with a much smaller number of operations and with far less waste than the traditional methods of metal manufacture.

Joining techniques have developed to unprecedented level of sophistication and are also providing opportunities for economies. It is necessary to mention that these newer techniques allow the manufacture of complicated parts by welding together simpler sub-units requiring little machining; such assemblies can be made from a variety of materials. The methods can also be used effectively for assembly, allowing savings to be made in both materials and machine utilization.

The brief review of new processes above has indicated that a new materials technology is rapidly emerging, providing new opportunities and challenges for imaginative product design and for more efficient manufacture.

Оценка	Показатели оценки
3	Количество правильных ответов 5.
4	Количество правильных ответов 6.
5	Количество правильных ответов 7-8.

Текущий контроль №2

Форма контроля: Практическая работа (Опрос)

Описательная часть: Письменная практическая работа

Задание №1

Подберите соответствующий перевод к словам, обозначающим инструменты и материалы для черчения.

1. protractor а) чертежная ленточка, наугольник

2. compass б) треугольник

3. t-square с) циркуль

4. triangles д) измеритель

5. dividers е) лекало

6. pencil sharpener ф) транспортир

7. eraser г) технический карандаш

8. french curve h) масштабная линейка

9. drawing scale и) ластик

10. technical pencil j) точилка

Оценка	Показатели оценки
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3	Количество правильных ответов 7.
4	Количество правильных ответов 8.
5	Количество правильных ответов 9 - 10.

Задание №2

Найдите в тексте эквиваленты следующим словам:

половинный разрез, полное сечение, соединительные сечения, плоскость резки, чертеж.

Geometric Construction

Drawing consists of construction of primitive geometric forms viz. points, lines and planes that serve the building blocks for more complicated geometric shapes and defining the position of object in space.

The shapes of objects are formed from primitive geometric forms. These are point, line, plane, solid, doubly curved surface and object, warped surface. The basic 2-D geometric primitives, from which other more complex geometric forms are derived: points, lines, circles, and arcs.

A section view is a view used on a drawing to show an area or hidden part of an object by cutting away or removing some of that object. The cut line is called a “cutting plane”, and can be done in several ways. Here show the several methods or types of “section views”: Visualizing the Cutting Plane, Full Section...It is very important to Visualize what the part will look like after it is cut open. In a full section, the cutting plane line passes fully through the part. Half Section is used to the exterior and interior of the part in the same view. Revolved Sections is used to show a small portion of a drawing. Assembly Sections show how parts fit together.

Оценка	Показатели оценки
3	Количество правильно указанных соответствий 3.
4	Количество правильно указанных соответствий 4.
5	Количество правильно указанных соответствий 5.

Задание №3

Найдите соответствия геометрическим конструкциям:

- 1.hexagon a) кривая
- 2.right angle b) параллель
- 3.straight line c) полушарие
- 4.curve d) шестиугольник

5.polygon e)пятиугольник

6.parallel f) треугольник

7.hemisphere g) прямая линия

8.pentagon h)многоугольник

9. triangle i) прямоугольник

10.rectangle g) прямой угол

Оценка	Показатели оценки
3	Количество правильно указанных соответствий 3.
4	Количество правильно указанных соответствий 4.
5	Количество правильно указанных соответствий 5.

Задание №4

Дать определение словам по теме «Чертежи. Техническая документация»:

a drawing, a blueprint, a detail drawing, a working drawing, schematics, a drawing board, to draw up a drawing, design information, a design solution, an item, size, scale, computer-aided design, specifications, technical requirements, to overdesign, locating, a centreline, centre-to-centre, a reference point, a grid, a gridline, a diagonal, perpendicular to, to set out, to locate, to run parallel with

Оценка	Показатели оценки
3	Количество правильных ответов 15 - 19.
4	Количество правильных ответов 20 - 24.
5	Количество правильных ответов от 25 и выше.