НАЦІОНАЛЬНИЙ АВІАЦІЙНИЙ УНІВЕРСИТЕТ ФАКУЛЬТЕТ АЕРОНАВІГАЦІЇ, ЕЛЕКТРОНІКИ ТА ТЕЛЕКОМУНІКАЦІЙ

КАФЕДРА АВІАЦІЙНОЇ АНГЛІЙСЬКОЇ МОВИ

ЗАТВЕРДЖУЮ

| Зав. кафедри _ | | Наталія ПАЗЮРА | | |
|----------------|----------|----------------|----|--|
| | (підпис) | (ПІБ) | | |
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ЕКЗАМЕНАЦІЙНИЙ БІЛЕТ

Дисципліна «Фахова іноземна мова»

Спеціальність: 153 Мікро- та наносистемна техніка

171 Електроніка

1. Прочитати текст та відповісти на питання.

When a machine or a tool is made, the most suitable material must be chosen by considering its properties, which can be classified as mechanical, thermal, electrical and chemical. The main types of materials used in mechanical engineering are metals, polymer materials, ceramics and composite materials. The most commonly used materials are metals, which can be divided into ferrous and non-ferrous. They can be used in their pure form or mixed with other elements. In this second case we have an alloy and it is used to improve some properties of the metals. The most commonly used ferrous metals are iron and alloys which use iron. Because iron is soft and pasty it is not suitable to be used as a structural material, so a small amount of carbon is added to it to make steel alloy.

Non-ferrous metals contain little or no iron. The most common non-ferrous metals used in mechanics are copper, zinc, tin and aluminium. Some common non-ferrous alloys are brass (formed by mixing copper and zinc), bronze (formed by mixing copper and tin) and other aluminium alloys which are used in the aircraft industry. Other examples of materials used in mechanical engineering are plastic and rubber. PVC or polyvinyl chloride is a type of plastic and is used to insulate wires and cables. Rubber is a polymer and its best property is elasticity, as it returns to its original size and shape after deformation. Ceramic materials are good insulators: hard, resistant and strong, but brittle. Composite materials are made up of two or more materials combined to improve their mechanical properties. Concrete is reinforced with steel and is used in building engineering.

- 1. What is the basic classification of metals?
- 2. What are the characteristics of iron?
- 3. Why are alloys created?
- 4. Why are alloys created?
- 5. Why are alloys created?

2. Виконати граматично-лексичне завдання.

| 1. After he | an Olympi | ic gold medal he | pecame a professional boxer. |
|------------------------|---------------------|--------------------|------------------------------|
| a) had won b) |) have won c) was | s winning d) wou | ld win. |
| 2.The sales represen | ntatives often | in the Chalgro | ve Hotel on the corner. |
| a) are staying b) stay | ys c) stay d) are b | peing stayed | |
| 3. Jamal's house | almost 200 | years old. | |
| a) is being b) is c) a | are d) am | | |
| 4. Where? It | s after midnight | ! | |
| a) do you go b) you | goes c) are you g | going d) are you b | eing gone |
| 5 milk in | his tea, or lemon | 1? | |
| a) Is Ivan preferring | (b) Is Ivan prefer | s c) Does Ivan pr | efer d) Do Ivan prefer |
| 3. Усна бесіда за т | гемою: "What s | hould we do to s | ave energy?" |
| Затверджено на засіда | анні кафедри | | |
| Протокол № від | " | 20ров | y |
| Викладач | | | |
| (піді | пис) | (П.І.Б | |