**3 курс**

**Практическое занятие № 13**

**Тема: Электричество.**

Повторение лексико-грамматического материала

Электрический ток. Словари и их типы. Технические словари.

***Прочитайте текст и выполните послетекстовые задания:***

**ELECTRIC CURRENT**

If we connect a cell (battery) across a body, there is a movement of free electrons towards the positive end. This movement of electrons is an electric current.

A cell provides an electric current (or current). This flows through wires, which conduct the electricity (provide a way for it to travel). The current is used to light a lamp. So, like all circuits, the example includes:

* an electrical supply - in this case, the cell (battery)
* an electrical conductor (or conductor) - an electrical path - for example, wires.
* one or more electrical components (or components) - electrical devices (in this case, the lamp) which have a function.

Current is measured in amperes, or amps (A). It is the rate of flow of electric charge. Electric charge is carried by electrons - particles with a negative charge (-), which are normally attached to atoms. When an electric current flows through a conductor; the electrons move from one atom to another - in the case of a copper wire, from one copper atom to the next.

If the number of electrons flowing through a conductor increases, then the amperage, or a current increases. When electrons flow, carrying a current, they can be called charge carriers.

In everyday English, cells are called batteries. In technical English, a battery is a number of cells placed together. Lamps are often called bulbs in everyday English .

The amount of current (in amps) flowing through a circuit will partly depend on the

electromotive force (EMF) of the electrical supply. Electromotive force is measured in volts (V),

and is generally called voltage. The voltage depends on the 'strength' of the electrical supply.

The amount of current will also depend on electrical resistance (or resistance). This value

is measured in ohms (0) It is a measure of how easily current can flow through the conductors and components in a circuit. For example, a lamp creates resistance because the filament- the metal wire inside it - is very thin. This limits the amount of current that can flow. Resistance also depends on the materials used as conductors. For example, copper has a low resistance.

An electric current which flows in the same direction through a conductor or a current which does not change its polarity is called a direct current or a continuous current. Its abbreviation is D. C. An alternating current (A. C.) flows first in one direction and then in the other.

**Задание 1. Используя англо-русский политехнический словарь, найдите перевод следующих слов. (расшифруйте аббревиатуры)**

Current, electrical supply, resistance, cell, wire, conductor, circuit, charge, carriers, voltage, measure, direction, A. C., D. C., EMF, V, O, A.

**Задание 2. Найдите в тексте перевод слов и словосочетаний.**

Электрическая цепь, движение электронов, батарейка (элемент питания), электрическая лампочка, электрический ток, источник энергии (электричества), заряд, частица, напряжение, сопротивление, количество, ЭДС, переменный ток, постоянный ток, величина, проводник, проводить (электричество), провод, зависеть от, измерять, протекать.

**Задание 3. Ответьте на вопросы.**

1. What is an electric current?
2. Where does electric current flow?
3. What parts does a circuit include?
4. How is current measured?
5. What are electrons?
6. How are lamps usually called in everyday English?
7. What is measured in volts?
8. What does the voltage depend on?
9. What is resistance?
10. What does resistance depend on?
11. What is D. C.?
12. What is A. C.?

**Задание 4. Продолжите предложения.**

1. If we connect a cell (battery) across a body, there is a movement …
2. A cell provides …
3. …. measured in amperes, or amps (A).
4. Electric ... is carried by electrons - ... with a negative charge (-), which are normally ... to atoms.
5. The amount of current (in amps) flowing through a circuit will partly ….
6. … is measured in volts (V), and is generally called … .
7. It is a measure of how easily … can flow through the ... and components in a circuit.
8. …, a lamp creates resistance because the … - the metal wire inside it - is very thin.
9. An electric current which flows in the … through a conductor or a current which does not change its polarity is called a … current or a continuous current.