**Проверочная работа по английскому языку по теме «Электрический ток»**

**Прочитайте и переведите текст. Выполните задания по тексту.**

**Direct Current and Alternating Current.**

When a cell or any other generator is connected so as to form a continuous path of conductors the electrons begin to move through conductors and this is called an electric current, an electric circuit. We know that current is the flow electricity through a circuit. If broken anywhere, the electric circuit will stop carrying a current. There are two main types of current: direct and alternating. When electrons flow in one direction only, the current is called a direct current. When electrons flow first in one direction and then in another in a periodic manner, the current is an alternating current. An alternating current is a current that changes its direction of flow through a circuit in a periodic manner. Alternating current flows in cycle. The number of cycles per second is termed the frequency of current. In a 60 – cycle alternating current circuit, the current flows in one direction 60 times per second and in the other direction 60 times per second. Two frequencies are in use nowadays: the standard for Europe is 50 cycles per second, while the standard for the USA 60 cycles per second. A standard frequency has a great advantage since different electrical system can be interconnected.

The strength of current depends on both the voltage and on the resistance in a circuit. A current of 50ma is dangerous for a man, it may result in an electric shock. One gets an electric shock in case one touches live conductors when the power is on. And a current of 100ma and higher is lethal Thus, before working on a circuit, deenergize it and work on it with the power off. The risk of an electric shock decreases with decreasing voltage. In wet and hot atmosphere the risk of electric shock increases. Safe voltage for circuits used in dry atmosphere is under 36V. When the power is on contacts with live conductors are dangerous for life. When a live conductor is touched with both hands the resistance of the conductor I from 10,000 to 50,000ohms. The higher is the body resistance, the smaller is the current that flows through the body. Tare it into consideration and work with one hand if the power is on, or work on the circuit with the power off.

***1. Ответьте на вопросы по тексту.***

1. What is current?

2. What types of current do you know?

3. What is frequency?

4. What elements does the circuit include?

5. In what circuit is the value of current the same in all the element. 6. What does the strength of current depend on?

***2. Закончите предложения:***

An alternating current changes its direction of flow while …..

A direct current flows provided a direct voltage source is applied while…..

The standard frequency for Europe is 50 cycles per second while…..

***3. Переведите, обратите внимание на перевод слов:***

Current times resistance equals voltage.

Ohm’s Law: resistance equals voltage divided by current.

current equals voltage divided by resistance.

voltage equals current times resistance.

***4.Заполните пропуски глаголами: to detect, to appear, to disappear, to decrease.***

When resistance increases, the risk of electric shock … .

Faults in electric installations are … by means of special devices.

Electric power … only on live conductors with power on.

When the device is switched off electric power.

***5.Заполните пропуски глаголами to offer, to connect, to include, to equal, to draw, to compare.***

Resistance …voltage divided by current.

Circuit (a) …a voltage source and two resistors.

Any conductor … resistance to the flow of currents.

The elements in circuit (b) are …in parallel.

… a scheme of a series-parallel circuit, please.

How many elements does circuit (b) …?