**Найдите ответы на вопросы**

1. Who is Georg Ohm?
2. What is his nationality?
3. When and where was he born?
4. What Universities awards of G.Ohm do you know?

 **Спишите слова**

**Ohm’s law**

**Vocabulary**

conductor -проводник the ratio-соотношение

to oppose -сопротивляться,противостоять difference-разница

to arise-возникать to include - включать ч-л

charges - заряды to define-определять

to collide-сталкивать to neglect-пренебрегать

to give up-вызывать to determine-определять

to appear-появляться circuit-электрическая цепь

resistance-сопртивление to substitute-заменять

to apply- прилагать according to-согласно,в соответствии

per ampere –на ампер as well as-также как

distinction-различие

2) **:Переведите текст , заполняя пропуски словами из скобок**

1.Every electrical conductoropposes **…..**of through it. This **……**arises because of the moving **…..**colliding with the atomic nuclei and other particles of the**…..**. In so doing, the moving charges give up **…..**, which **……**as heat. According to Ohm’s law, electrical **…..**is the ratio of the **…. …..**to the **…..**for a conductor at a given Temperature.

***(conductor ,the passage, opposition , current, potential difference, appears, energy, charges, resistance)***

2.The Ohm, the practical **…**of resistance, is defined in terms of the ampere and the volt, as follows:

One ohm is **……**of a conductor through which the current is 1 ampere when the potential difference across **…..**of the conductor is 1 volt. One ohm**…..**1 volt per ampere.

Electromotive force and **… …**are both measured in volts.

The unit of current **…..**is the ampere.

***(the resistance ,unit, the ends, potential difference, equals, strength)***

3. This is the well known and fundamental **….**in electricity which makes it possible to determine the current **….**through the **….**,when the resistance in the circuit and the potential difference **…..**to it are known.

***(Law,******flowing, applied)***

4. What Ohm **….**was that the ratio of the potential difference between the ends of a **….**conductor and the current flowing through the metallic is **constan**t. The **…..**constant is the electrical resistance.

Resistance=potential difference: current

or

1 Ohm=1 volt=1volt:1 ampere

The Resistance is measured with **…..**in practice.

***(Discovered, an ohmmeter, metallic, constant, proportionality)***

5. Using Ohm’s law is of great importance because of its being generally applied to so many electrical phenomena. One of its simplest applications is using a dry cell directly connected by wires to a small light bulb. The battery maintains a potential difference of 1.5 volts across the lamp. The current flowing through the circuit being 0.5 ampere, the resistance of the circuit is R=1.5 volts:0.5 ampere=3 ohms.

Although the resistance as found here is assumed to the resistance of the light bulb, it really includes the resistance of the connecting wires, as well as the resistance of the battery. In practice one usually uses wires of sufficiently law resistance that can be neglected in most calculations.

If they are not small, they can not be neglected and must be added as part of the R in Ohm’s law.

Although electromotive force and potential difference are both measured in volts there is a real distinction between them. Electromotive force is defined as the work per unit charge done by the battery or generator on the charges in moving them around the circuit. Potential difference between two points is defined as the work per unit charge done by the charges in moving from one point to the other.

6. If any two of the three quantities: resistance, current and potential difference are known for a circuit, the third can always **….**in Ohm’s law. In other words, any one of the three factors may be the unknown, and Ohm’s law may be written in any one of three **….**:

I=V:R, R=V:1, V= IR

***(Quantities, be determined, ways,******by substituting,)***

7. Ohm’s law applies to **….. …..**in which a current is flowing.

*(****a current****,****all metallic conductors)***

1. did he study?
2. What is he known for?
3. What is Henry Cavendish?
4. What notable