

Palmer
Assignment

Unit 2

Ex. 1

- 1) The French scientist Charles François de Cisternay Du Fay was the first to make clear the two different types of electric charge: positive and negative.
- 2) Atmospheric electricity that causes the phenomena of lightning and thunder is identical with the electrostatic charge on a Leyden jar.
- 3) Priestley demonstrated that an electric charge distributes itself uniformly over the surface of a hollow metal sphere, and that no charge and no electric field or force exists within such a sphere.
- 4) The Italian physicists Luigi Galvani and Alessandro Volta conducted the first important experiments in electrical currents.
- 5) Faraday, who made many contributions to the study of electricity in the early 19th century.

was also responsible for the theory of electric lines of force.

6) Electricity is a form of energy.

7) The Dutch physicist Hendrik Antoon Lorentz first advanced the electron theory, which is the basis of modern electrical theory in 1892.

8) The widespread use of electricity as a source of power is largely due to work of pioneering American and inventors.

9) Equal and oppositely charged bodies are connected to each other by a metal conductor.

10) Electrical engineering is the opposite of engineering electrical current is positive or negative.

11) Second the rate of the flow of electrons current from a negatively charged body to a positively.

12) Resistance necessarily limits the current.

13) Ohm's law can be expressed as the following algebraic equation.

14) When current electrons collide with conductor.

atoms, energy is generated.

15) The amount of energy expended in an electric circuit is expressed in terms of the joule.

16) A magnet or a compass needle placed near the wire will be deflected.

Ex. d.

1) There are two types of electric charges: positive and negative.

2) His experiment proved that the atmospheric electricity that causes the phenomena of lightning and thunder is identical with electrostatic charge on a Leyden jar.

3) The force between electric charges varies inversely with the square of the distance between the charges.

4) This scientist made a great contribution to the development of the study of electricity.

- 5) Electricity is a form of energy.
- 6) Electric circuits obey the law of the conservation of energy.
- 7) Properties of electromagnetic waves.
- 8) The widespread use of electricity as an energy source occurred at the beginning of the last century.
- 1) Equal and oppositely charged bodies are connected to each other by a metal conductor.
- 2) The flow of electrons from a negatively charged body to a positively charged body.
- 3) The flow of electrons from a point with a lower potential to a point with a higher potential.
- 4) The resistance in the network limits the amount of current.
- 5) Ohm's Law can be expressed as the following algebraic equation.
- 6) When an electric current passes through the wire, the temperature of the wire rises.
- 7) When current electrons collide with conductor atoms, energy is generated.

8) The compass needle located next to the wire will deviate in the direction perpendicular to the wire.