14. Electricity

1. Which helps us to see in dark and heat up food?

Electricity lights up the bulbs for us to see even in the dark and heats up the oven to cook food.

2. How do we get electricity at home and school?

- The electricity we use at home and school comes from the substation in the neighborhood which draws power from the larger power stations.
- These power stations get electricity from the electrical plants.
- From the power station, electricity flows through cables and wires to the step up transformers where the voltage is raised to facilitate long distance travel.
- The substation transformers receive the current, lower the voltage and send it to pole transformers.
- From these transformers, electricity is supplied to homes, schools and buildings, wherever required.

3. What is turbines?

Inside the power stations, there are huge rotating wheels called turbines.

4. What is generator?

A simple generator consists of a coil of wire that rotates between the poles of a strong magnet. As the coil rotates, electric current is generated.

5. Give note on Tamil Nadu leads?

- Wind energy is an important, free, renewable, clean and non-polluting energy source.
- In a wind farm, huge windmills convert wind energy into electrical energy. Tamilnadu is the No.1 state in India, with the highest wind power generating capacity of about 5,000 MW.
- Most wind farms are in Thoothukudi, Kanyakumari and Thirunelveli Districts of Tamilnadu.

6. What is electric cell?

The electric cell is a source of electric current. It is a device which converts chemical energy into electrical energy.

7. What is electrolyte?

An electric cell has two different metal plates called electrodes kept inside a chemical called electrolyte.

8. What are the types of electric cell?

Primary and secondary cells

9. What is primary cell?

Primary cells are intended to be used only once and then discarded. They cannot be reused as the chemicals get used up, when the cells are in use and cannot be recharged.

10. What are secondary cells?

Secondary cells can be recharged and reused many times. They are also called Storage cells.

11. Who developed electric cell?

The first electric cell was developed by an Italian scientist Luigi Galvani and then improved by Alessandro Volta. It has been further developed into the modern day cell or torch battery. Now, we also have rechargeable alkali cells and solar cells. These solar cells convert light energy into electrical energy.

12. What is electric circuit?

An electric circuit is the continuous or unbroken closed path along which electric current flows from the positive terminal to the negative terminal of the

battery.

13. What do the electric circuit made of?

A circuit generally has:

a) A source of electric current - a cell or battery.

b) Connecting wires - for carrying current.

c) A device that consumes the electricity - a bulb.

d) A key or a switch – This may be connected anywhere along the circuit to

stop or allow the flow of current. When the current flows, the circuit is said to

be closed. When the current does not flow, the circuit is said to be open.

14. What is galvanometer?

Galvanometer is an instrument used to detect the flow of current in electrical

circuits. When current flows through the galvanometer, the needle gets deflected.

15. What is electric switch?

An electric switch is a device that opens or closes an electric circuit

16. What is electric eel?

The Electric eel is an electric fish. It is capable of generating powerful electric

shocks for hunting its prey and for self defence. The electric eel lives in the fresh water of the Amazon and the Orinoco river basins in South America.

17. What is conductors?

The materials that allow electric current to pass through them are conductors

18. What is electric fuse?

The wires will get overheated and the appliance will get damaged. This situation arises as a result of some fault in the circuit and can be extremely dangerous as it could cause fire. To prevent electric appliances from getting damaged as a result of excessive flow of current through them, a safety device called fuse is used. The fuse is a safety device used in an electric circuit.

19. What is miniature circuit breaker?

A miniature circuit breaker is an

automatically operated electric switch that protects an electric circuit during overload or short circuit. Circuit breakers are available in different sizes, and can protect small household appliances as well as high voltage devices.

20. What is electro magnet?

A material that becomes a magnet when current is passed is called an Electromagnet.