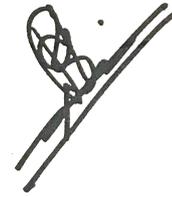


PHYSICS (GRADE-7)
Lesson - 35
STATIC ELECTRICITY



Mrs. Ruksana & Mrs. Farhana

1. What is static electricity?

Ans. It is the build-up of static charges on the surface of an object or material.

2. How is static electricity created?

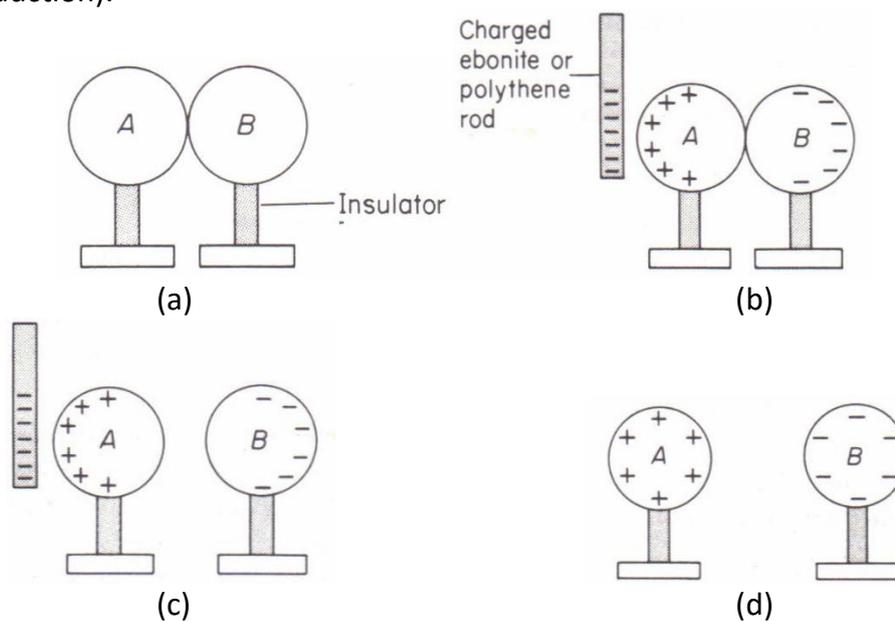
Ans. Basically an atom is neutral. When two materials are rubbed against each other, loosely attached electrons transfer from the surface of one material to the other. The material which loses electrons becomes positively charged and the one that gains electrons becomes negatively charged. They become electrified (charged) and have the ability to attract or repel other charged materials. One of the rubbing materials must be an insulator.

3. Write an example of static electricity.

Ans. When a polythene rod is rubbed with a woollen cloth, electrons move from the cloth to the polythene rod. Now, polythene is negatively charged because it has gained electrons, so the number of electrons is more than protons, while the cloth is positively charged because it has more number of protons than electrons.

4. What is meant by electrostatic induction?

Ans. Electrostatic induction is a method to create or generate static electricity in uncharged objects by bringing an electrically charged object near it. This causes the electrical charges to become redistributed resulting in the uncharged object resulting in one side having an excess of either positive or negative charges. This phenomenon is most effective when the object is a conducting material such as metals (certain non-conducting materials can also be given static electricity by electrostatic induction).



5. What is meant by electric field?

Ans. When an electric charge is placed near to another electric charge, it experiences a force. The region or space around an electric charge where another charge experiences a force is called electric field. If the electric force felt by charge is the same everywhere in the electric field, the electric field is uniform. A uniform electric field is produced between two oppositely charged parallel metal plates.

