



KALPAVRUKSHA MODEL SCHOOL

Answers of Assignments-2

Class: VIII

Sub: Physics

Date: 3.07.2021

Topic: Some natural phenomena

I. Answers:

- 1. What type of electric charge is acquired by a rubber balloon when rubbed with a woollen cloth?**

ANS: Negative electric charge is acquired by a rubber balloon when rubbed with a woollen cloth.

- 2. A negatively charged object attracts another charged object placed near it. What is the nature of charge on the other object?**

ANS: A negatively charged object attracts another charged object placed near it, the nature of charge on the other object is positive charge because positive and negative unlike charges attract each other.

- 3. A glass rod is rubbed with a silk cloth. What type of charge is acquired by both of them?**

ANS: A glass rod is rubbed with a silk cloth, glass rod acquires positive charge and silk cloth acquires negative charge.

- 4. Define electric charge.**

ANS: Electric charge is the property of matter which is responsible for electrical phenomena.

- 5. A positively charged object repels another charged object kept close to it. What is the nature of charges on the other object?**

ANS: A positively charged object repels another charged object kept close to it, the nature of charges on the other object is positive charge only because positive and positive like charges repel each other.

6. How will you find out whether an object is charged or not?

ANS: Ans: Electroscope; It is a device that can be used to test whether an object is carrying charge or not. Electroscope consists of closely placed two metallic (aluminium) foils or strips. When both the strips are charged with similar charges, they repel each other and become wide open. If the object is charged if you take near any uncharged object it attracts that one. It applies the power of attraction. If both the objects are charged then if they have like charges they repel each other. Ex: Balloon rubbed with dry hair. If they have unlike charges they attract each other. Ex: glass rod with silk cloth rubbed against each other acquires opposite charges and attract each other.

7. Why does a plastic comb rubbed with dry hair attract tiny pieces of paper?

ANS: A charged plastic comb attracts an uncharged piece of paper. Suppose a negatively charged plastic comb is held over a small piece of paper. The negatively charged plastic comb produces opposite charges (positive charge) in the top end of paper (which is nearer to it) by electric induction. This is because the negative charge of the plastic comb repels the electrons from the top side of the paper to its bottom side, leaving the top of the paper positively charged. The plastic comb has a negative charge and the top of the paper has now a positive charge. The attraction between opposite charges results in the paper being attracted by the plastic comb.