BRAIN INTERNATIONAL SCHOOL

Science Assignment **Class: VIII** **Dec'2024**

Chapter -12 Some Natural Phenomena

1. **Choose the correct option:**

(i) Electric current is to be passed from one body to another. For this purpose, the two bodies must be joined by
(a) cotton thread (b) plastic string (c) copper wire (d) rubber band

(ii) The two bodies are rubbed against each other,
(a) they acquire equal and similar charges.
(b) they acquire equal and opposite charges.
(c) they acquire unequal and similar charges.
(d) they acquire unequal and opposite charges.

2. In each of the following questions, two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below:

a) Both A and R are true, and R is correct explanation of the assertion.

b) Both A and R are true, but R is not the correct explanation of the assertion.

c) A is true, but R is false.

d) A is false, but R is true.

(i) Assertion (A): Lightning rods are conductors use to protect buildings and houses from lightning strikes.
Reason (R): Lightning rods conduct electric charge.

(ii) Assertion (A): It is safer to stand under a tall tree during lightning.
Reason (R): Doing so will make you the target for lightning.

3. <u>Answer the following questions</u>:

1. What is the Richter scale? Why do we say that it is not a linear scale?
2. During the construction of a building the lightning conductor was left hanging in the air by mistake. Would the lightning conductor be still effective? Explain.
3. What is an electric discharge? Under what conditions does it occur?
4. What precautions would you take if lightning occurs while you are outside the house?
5. Observe the fig. given below and answer the following questions:

(a) The aluminium strips in an electroscope as shown in fig. are replaced by plastic strips and a charged body is brought in contact with the metal clip. What will happen?

(b) In an electroscope if a negatively charged body is brought in contact with the metal clip, the strips of the electroscope diverge. If now another charged object carrying equal amount of positive charge is brought in contact with the clip, what will happen?

6. Explain how does lightning conductor protects a building from getting struck by lightning.