

Marking Scheme: All questions carry 10 marks each. Subparts (A) and (B) carry 3 marks each and subpart (C) carries 4 marks.

Question 1:

A. Fill in the blanks:

- i) ______ is used to protect buildings from the effects of lightning
- ii) ______ is a device used to detect whether a body is charged or not
- iii) ______ is caused by the accumulation of charges in the cloud
- B. Answer the following
 - i) Explain why a charged body loses its charge if we touch it with our hand.
 - ii) What is an earthquake? What causes an earthquake?
- C. Answer the following:
 - Name the scale on which the destructive energy of an earthquake is measured. An earthquake measures 3 on this scale. Would it be recorded by a seismograph? Is it likely to cause much damage?
 - ii) Suggest three measures to protect ourselves from lightning

Question 2.

A. Choose the correct option

- i) Earthquakes can cause
 - a) Tsunami b) Landslides c) Floods d) All of the above
- ii) Boundaries of earth's plate are known as
 - a) Fault zone b) Seismic zone c) a and b d) None of the above
- iii) Outermost layer of the earth is called
 - a) Mantle b) Outer core c) Crust d) Inner core

B. Answer the following

- i) Suggest some tips for a quake safe building.
- ii) Explain why a charged balloon is repelled by another charged balloon whereas an uncharged balloon is attracted by another charged balloon?
- C. Answer the following
 - i) The strips of an electroscope diverge when a charged body is brought in contact with the metal clip. Now the clip is touched gently by our hand. What will happen to the strips? Explain.
 - ii) Describe with the help of a diagram an instrument which can be used to detect a charged body.

Question 3.

A. State true or false

- i) Earthquakes can be predicted in advance
- ii) Like charges attract each other
- iii) A charged glass rod attracts a charged plastic straw

B. Answer the following

- i) Name the waves produced by tremors
- ii) List three states in India where earthquakes are more likely to strike.
- iii) What is the magnitude of highly destructive earthquake?

C. Answer the following

- The weather department has predicted that a thunderstorm is likely to occur on a certain day. Suppose you have to go out on that day. Would you carry an umbrella? Explain.
- ii) Explain the structure of lightning conductor.