15 Some Natural Phenomena

Multiple Choice Questions

1. An electroscope is a device which is used to find if an object is
   (a) charged
   (b) magnetic
   (c) free of cracks
   (d) hot

2. 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

3. The movement of the earth's plates causes
   (a) cyclones
   (b) lightning
   (c) earthquakes
   (d) thunderstorms

4. Two charged objects are brought close to each other. Choose the most appropriate statement from the following options:
   (a) they may attract
   (b) they may repel
   (c) they may attract or repel depending on the type of charges they carry
   (d) there will be no effect

5. Which of the following is not likely to cause Tsunami?
   (a) A major nuclear explosion under sea
   (b) Earthquake
   (c) Volcanic eruption
   (d) Lightning

6. The earth's plate responsible for causing earthquakes is
   (a) the crust of the earth
   (b) the mantle of the earth
   (c) the inner core of the earth
   (d) the outer core of the earth

7. Consider the list of terms given below:
   (i) Seismic Zone
   (ii) Fault Zone
   (iii) Mantle
   (iv) Inner Core

The boundaries of the earth's plate are known as

(a) (i) & (ii) (c) (iii) & (iv)
(b) (i) & (iii) (d) (ii), (iii) & (iv)

8. The outermost layer of earth is called

(a) mantle (c) crust
(b) outer core (d) inner core

9. Major earthquakes are less likely to occur in

(a) North East India (c) Rann of Kutch
(b) Rajasthan (d) Orissa

10. Consider the list of terms given below

(i) Tsunami (iii) Floods
(ii) Landslide (iv) Lightning

Earthquakes can cause

(a) (i), (ii) & (iii) (c) (ii), (iii) & (iv)
(b) (ii) & (iv) (d) (iii) & (iv)

VERY SHORT ANSWER QUESTIONS

11. State whether the following are True or False.
    (a) Earthquakes occur all the time all over the world.
    (b) The plates of the outermost layer of the earth are always in continuous motion.
    (c) Tremors on the earth can also be caused by the eruption of a volcano.
    (d) The process of electric discharge cannot occur between clouds and the earth.
    (e) Bathing outdoors should be avoided during thunderstorm.

12. Is it possible to predict the occurrence of an earthquake?

13. If a charged plastic straw is brought near another uncharged plastic straw, what will happen?

14. The aluminium strips in an electroscope as shown in fig. 15.1 are replaced by plastic strips and a charged body is brought in contact with the metal clip. What will happen?



Fig. 15.1

15. Plastic straws A and B are rubbed with dry cotton cloth. What will happen if they are brought near each other?

SHORT ANSWER QUESTIONS

16. 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.

17. If air and cloud were good conductors of electricity, do you think lightning could occur? Explain.

18. Identify the lightning conductor and the copper plate in Fig. 15.2.

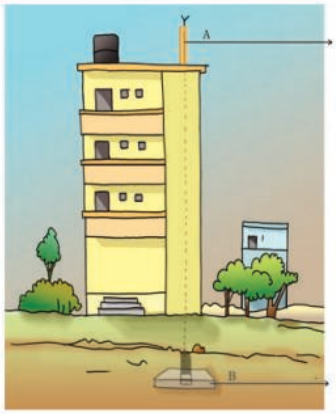


Fig. 15.2

19. If the materials used for constructing a building were good conductors, do you think lightning will strike the building. Will the lightning conductor be still required to be installed in the building?

20. You might have observed on a dry day that when you touch the screen of a television or computer monitor (with picture tube), you get a slight shock. Why does it happen?

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

22. 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 prositive charge is brought in contact with the clip, what will happen?

23. 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.

LONG ANSWER QUESTIONS

24. Explain how lightning takes place?

25. Mention three precautions that you will take to protect yourself if earthquake strikes when you are inside the house.

26. Explain why it is safer to use a wireless telephone instead of a landline telephone during lightning.

27. What precautions would you take if lightning occurs while you are outside the house?

28. If the metal clip used in the electroscope is replaced by an ebonite rod and a charged body is brought in contact with it, will there be any effect on the aluminium strips? Explain.