Some natural phenomenon

Question and answer

1. What is an electro scope? Write its principle
2. What is richter scale and seismic wave?
3. What is earthing?
4. Name the device used to protect buildings from the effect of lightning
5. List two architectural considerations while constructing a house in an earthquake prone area.
6. How does lightning strike the earth?
7. The earthquake of richter scale 7.5 and 3.5 occur. Which one is more destructive?
8. What is earthquake?
9. Name any two methods to charge a body
10. Explain in brief how lightning is caused?
11. What is an electroscope used for?
12. Suppose you are inside your house and an earthquake strikes. What precautions would you take to protect yourself .
13. Two electroscopes (one positively charged and other negatively charged) are connected with a copper wire. What will happen?
14. Why do leaves of an electroscope diverge when a charged body is brought in contact with its disc? Do they always diverge to the same extent?
15. How can we discharge one charged electroscope?
16. Which can't be charged by friction: glass rod, copper rod, ball of wool, inflated balloon
17. The sentences explain why you sometimes get an electric shock on touching a door knob. They are jumbled up. write the correct sequence

    a) The metal door knob is a conductor

b) you get a shock

c) The extra electrons move from the door knob to your body

d) Your feet rub against the floor

e) Now you have extra electrons

18. How is lightning useful?
19. Who discovered the phenomenon of static electricity?
20. Why are lightning strikes more frequent in the hilly areas?
21. Explain how most earthquakes are caused?
22. List 4 architectural considerations while constructing a house in an earthquake prone area
23. There are four bodies P, Q , R and S. P and Q are rubbed against each other so that they get charged. P is repelled by R and Q is attracted to S. if R is positively charged, find the charge on rest of the bodies. Justify your answer.
24. Are the following sentences correct? Justify your answer.

    a) An umbrella should be carried during thunderstorms to save ourselves from the wind

    b) Taller trees provide better shelter during thunderstorms

    c) It is safer to use mobile phones than landlines during thunderstorm

25. When a charged rod is moved towards an uncharged paper cylinder suspended by a string, the cylinder gets attracted to the rod initially but then moves away with a jerk. Why?
26. A crackling sound is heard while taking off a sweater on a dry winter day. Why?
27. Which calamities can be caused by earthquake? List 2 states in India where earthquakes are more likely to strike
28. We should avoid taking a bath during thunderstorm. Why?
29. List two human activities that can cause earthquakes.

30. How will you find out whether the given body is a conductor or an insulator using an electroscope? With the help f a diagram
31. Why does your hair stand on its end when you pull off woolen cap?
32. What is electric charge? Under what circumstances does it occur?
33. A piece of thermocol suspended with a cotton thread moves away when a charged body is brought near it. What does it mean?
34. How will you use an electroscope to find out the nature of charge on a given object?
35. What is an electroscope? Draw a neat diagram
36. What are light conductors? Explain its working
37. How is lightning caused? Explain in brief
38. What is electric discharge? Under what circumstance does it cove

Differentiate

a) Charging by conduction and charging by induction

b) Charging by friction and induction

c) charging by rubbing and charging by conduction

Fill in the blanks

1. The weak zones where the earthquakes are more likely to occur are called ……. zones
2. The scientist who showed that lightning is electric in nature was……..
3. A positively charged object has a deficiency of ……..
4. The metal leaves of an electroscope move away from each other due to ……
5. The place where two plates of earth meet together is called ……..

6. The point on the earth's crust , just above the point in the deep crust from where earthquake begins ……
7. The charge acquired by a glass rod when rubbed with silk is ……
8. Lightning occurs due to ……
9. The blocks that make up the crust of the earth are called ……..plates
10. The weak points on the earth's crust where earthquake are likely to occur are called …..
11. A sphere is mounted on a wooden base. It is touched by a negatively charged metal rod. As a result, the sphere will be …… and the metal rod will be ……..
12. The place where tectonic plates meet are called …….
13. During lightning, charges in the clouds are produced by …….
14. The process of lightning can also be termed as …….
15 …… can protect buildings from the effects of lightning
16. The weak zones where the earthquakes are more likely to occur are called ……zones
17. The flow of electricity from the clouds to the ground is due to ……..of charges on earth
18. The device which can record and detect seismic waves is called ……..
19. The device used for detecting electric charge is called ……..
20. The instrument used to record an earthquake is called ……..
21. …….. is the point on the surface of earth directly above the focus of earthquake
22. …..are huge waves created when an earthquake happens under the sea
23. As you touch …… charged ruler at the top of the wire, the wire being a good …….carries the negative charges to the …… since both the leaves of the foil receive …….charges, they…….

24. A device which is used to test whether an object is carrying charge or not is not is known as ……..
25. The process of transferring of charge from a charged object to the object to the earth is called…..
26. …….. is a device used to protect buildings from the effect of lightning
27. The electric charges produced by rubbing are called …….. charges
28. If two charged bodies attract one another. It means that the nature of charges on them is ……
29. When charges move they constitute…….
30. A charged glass rod ……. a charged plastic straw
31. Charging by friction can be explained in terms of transfer o free ……..
32. Lightning occurs when a large quantity of charges get ……to the ground through a narrow path in the air
33. A charged body when brought in contact with the earth loses its charge due to …….
34. The magnitude of the earth quake is measured on a ……..
35. The instrument used to record the earthquake is called the …….
36. Neutral atoms have the same number of …….and …..
37. When two bodies are rubbed against each other they acquire ….. and …. charges
38. Negative and positive charges meet producing streaks of bright light and sound in clouds this process is called as…….
39. The power of an earth quake is expressed in terms of a magnitude on a scale called the……
40. Charge flows from a charged body to an uncharged body until ……
41. The flow of charge through air or gas is called an ……
42. Lightning is a natural phenomenon which involves…….

43. The charge acquire by a body in contact with a positively charged body is …….in nature

44. The process of transfer of charge from a charged object to the earth is called ……

45. The earthquake measuring ……or more on ……scale can cause severe damage to life and property

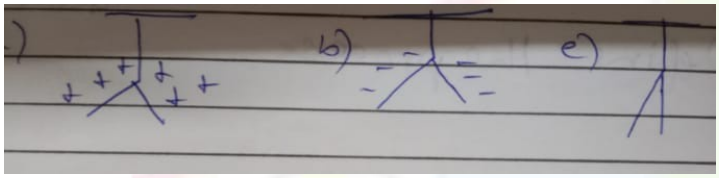
Give reason

1. Lightning is seen before the thunder is heard
2. Buildings and structures should not be constructed near and over landfills
3. We should avoid bathing during a thunderstorm
4. The houses in the seismic zone are made of wood and timber
5. A charged body loses its charge if we touch it with our hand
6. The leaves of an electroscope diverge when a charged body is brought in contact with its disc
7. Bathing should be avoided during thunderstorms
8. Your hair stands on its end while removing a sweater or when you pull off your woolen cap.
9. We should not carry umbrella during thunderstorm
10. We should squat low on the ground if we are on open field
11. A few seeds of mustard or rai were found to move away from each other when they were spread on a plate after being rubbed together in a small polythene bag. Why?

True or false

1. A charged body repels an uncharged body

2. Materials that allow electric charge to pass through them are called conductors
3. When a body loses electrons it becomes negatively charged
4. When a glass rod is rubbed with a piece of silk cloth, the rod becomes negatively charged while the silk cloth acquires positive charge
5. leaves of a charged electroscope looks like this



d) unpredicted

6. A negatively charged balloon is brought near a neutral metal sphere, which diagram shows the distribution of charges