



# PHYSICS

## BOOKS - SURA PUBLICATION

### Electricity

#### Exercise

1. When an ebonite rod is rubbed with fur, the charge acquired by the fur is.

A. negative

B. positive

C. partly positive and partly negative

D. none of these

**Answer:**



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2. The electrutrons  
ifneprotonsictelectronsiprotons and

netionson of two different bodies on rubbing  
is because of the transfer of

A. neutrons

B. protouns

C. electrons

D. protouns and neutrons

**Answer:**



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3. Which of the following a simple circuit must have ?

A. Energy Source, Battery Load

B. Energy Source, Wire, Load

C. Energy Source, Wire, Switch

D. Battery wire, Switch

**Answer:**



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4. An electroscope has been charged by induction with the help of charged glassrod.

The charge on the electroscope is

A. negative

B. positive

C. both positive and negative

D. None of the above

**Answer:**



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## 5. Fuse is

A. a switch

B. a wire with low resistance

C. a wire with high resistance

D. a protective device for breaking electric  
circuit

**Answer:**



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6. \_\_\_\_\_ takes place by rubbing objects together.



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7. the body which has lost electrons becomes \_\_\_\_\_.



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8. \_\_\_\_\_ is a device that protects building from lightning strike.



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9. \_\_\_\_\_ has a thin metallic filament that melts and breaks the connection when the circuit is overheated.



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10. Three bulbs are connected end to end from the battery. This connection is called \_\_\_\_\_.



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11. Match the following:

Two similar charges	acquires a positive charge
Two dissimilar charges	prevents a circuit from overheating
When glass rod is rubbed with silk	repel each other
When ebonite rod is rubbed with fur	attract each other
Fuse	acquires a negative charge



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12. Electroplating is based on \_\_\_\_\_ effect of electricity.

A. magnetic

B. chemical

C. heating

D. physical

**Answer:**



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**13.** A positively charged object will attract \_\_\_\_\_ charged object.

A. positively

B. negatively

C. both a and b

D. none

**Answer:**



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**14.** The method of charging an object by touching is called \_\_\_\_.

A. Induction

B. diffusion

C. current

D. conduction

**Answer:**



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**15.** Lighting occurs due to \_\_\_\_.

A. rain

B. humidity

C. wind

D. electric discharge

**Answer:**



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**16.** Electric charge can be transferred from a charged object to another through \_\_\_\_\_.

A. Vacuum

B. conductor

C. air

D. insulator

**Answer:**



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**17.** Electric charge is measured in \_\_\_\_\_.

A. volt

B. coulomb

C. ampere

D. watt

**Answer:**



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**18.** The value of charge of an electron is equal to \_\_\_\_\_.

A.  $6.04 \times 10^{-19} C$

B.  $1.602 \times 10^{-18} C$

C.  $1.602 \times 10^{-19} C$

D.  $6.10 \times 10^{-18} C$

**Answer:**



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**19.** Befor using electroscope, it should be \_\_\_\_.

A. charged

B. closed

C. discharged

D. cleaned

**Answer:**





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20. Lighting rode are made of \_\_\_\_\_.

A. copper

B. plastic

C. sand paper

D. wood

**Answer:**



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21. Electricity produced on rubbing is \_\_\_\_.

- A. static electricity
- B. current electricity
- C. electromagnet
- D. none

**Answer:**



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22. Fill in the blanks. \_\_\_ are the materials which allow electric current to pass through them.

A. conductor

B. insulator

C. both a and b

D. none of these

**Answer: none**



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23. the materials which does not allow electric current is called \_\_\_\_.

A. solution

B. metal

C. insulators

D. electrolytes

**Answer:**



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24. All metals are \_\_\_\_\_.

A. conductor

B. insulators

C. electrolytes

D. none of these

**Answer:**



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25. An electrolyte \_\_\_\_\_.

A. has positive charge

B. has negative charge

C. should be able to conduct charge  
without dissociating.

D. should be able to form positive and  
negative ions.

**Answer:**



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26. Most common industrial application of chemical effects of electric current is \_\_\_\_.

- A. Anodising
- B. electroplating
- C. electrolysis
- D. none

**Answer:**



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27. The terminal which is connected to a positive terminal of a battery is called\_\_\_\_\_.

A. anode

B. cathode

C. neutral

D. none

**Answer:**



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28. Flow of \_\_\_\_ per unit time is called current.

A. charge

B. proton

C. neutron

D. all of these

**Answer:**



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29. Liquids that conduct electricity are the solutions of \_\_\_\_\_.

A. acids

B. bases

C. salts

D. all of these

**Answer:**



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30. A tiny particle which rotates around the nucleus of an atom is \_\_\_\_.

A. proton

B. electron

C. neutron

D. both a and b

**Answer:**



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31. \_\_\_\_\_ wire is used in the filament of the bulbs.

A. Nichrome

B. Copper

C. Tungsten

D. None

**Answer:**



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32. Comb rubbed with hair \_\_\_\_ electrons from the hair and become negatively charged.



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33. Electric charge is measured in \_\_\_\_.



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34. Since, protons and electrons are equal in number, an atom is electrically \_\_\_\_.



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**35.** When an ebonite rod is rubbed with fur, the fur transfers electrons to the ebonite rod. Why?



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**36.** Before the discovery of electrons, it was considered that electric current is due to the flow of \_\_\_ charges.



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37. The gold- leaf electroscope was developed by \_\_\_\_.



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38. \_\_\_\_ is an example of discharge that takes place in clouds.



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39. During thunderstorm air is moving \_\_\_\_\_ rapidly.



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40. Huge quantities of electricity are discharged in light flashes and temperatures of over \_\_\_\_\_ °C or more can be reached.



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41. \_\_\_\_\_ extreme heat will vapourize the water inside a tree, creating steam that may burn out the tree.



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42. \_\_\_\_\_ is a device used to protect buildings from the effects of lightning .



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43. \_\_\_\_ is a species of fish which can give electric shocks.



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44. In series circuit, the current remains \_\_\_\_ throughout the circuit.



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45. \_\_\_\_\_ is used in extraction and purification of metals.



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46. Copper wire offers very little \_\_\_\_\_ and does not get heated up quickly.



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**47.** A fuse is a strip of alloy wire which is made of lead and tin with a very low \_\_\_\_.



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**48.** Flow of \_\_\_\_ per unit time is called current.



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49. Match the following:

1.	Bulb	(a)	Conductor
2.	Electroplating	(b)	Insulator
3.	Pure water	(c)	Heating effect of current
4.	Salt solution	(d)	Chemical effect of current



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50. Match the following:

1.	Anode	(a)	Conducting solution
2.	Cathode	(b)	Positive terminal
3.	Ions	(c)	Negative terminal
4.	Electrolyte	(d)	Positively or negatively charged



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51. Match the following:

1.	Bulb	(a)	Conductor
2.	Electroplating	(b)	Insulator
3.	Pure water	(c)	Heating effect of current
4.	Salt solution	(d)	Chemical effect of current



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52. Solve the following crossword with the help of the given clues. Across 1. Ions having a positive charge formed by the loss of electrons.



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**53.** Solve the following crossword with the help of the given clues. Chemical compound which conducts electricity when in aqueous state.



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**54.** Solve the following crossword with the help of the given clues. A process in which a thin film of metal is deposited on another metal with the help of electricity



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**55.** Solve the following crossword with the help of the given clues. A process in which a chemical change especially decomposition of a chemical compound is brought about by passing an electric current through a solution.



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**56.** Solve the following crossword with the help of the given clues. Atoms that have an



electric charge.



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**57.** Solve the following crossword with the help of the given clues. Ions having a negative charge formed by the gain of electrons.



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**58.** Solve the following crossword with the help of the given clues. A piece of metal

through which an electric current enters or leaves in a liquid or gas.



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**59.** Solve the following crossword with the help of the given clues. The negative electrode is an electrolytic cell, toward which positively charged particles are attracted.



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**60.** Fuse is

A. a switch

B. a wire with low resistance

C. a wire with high resistance

D. a protective device for breaking an electric circuit

**Answer:**



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61. Electric charge is measured in \_\_\_\_.

A. Volt

B. Coulomb

C. ampere

D. watt

**Answer:**



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62. Which of the following a simple circuit must have ?

A. Energy Source, Battery Load

B. Energy Source, Wire, Load

C. Energy Source, Wire, Switch

D. Battery wire, Switch

**Answer:**



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**63.** the body which has lost electrons becomes \_\_\_\_\_.



**Watch Video Solution**

**64.** The flow of \_\_\_\_\_ per unit time is called current.



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**65.** \_\_\_\_\_ takes place by rubbing objects together.



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**66.** Three bulbs are connected end to end from the battery. This connection is called \_\_\_\_.



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**67.** The charge acquired by an ebonite rod rubbed with a piece of flannel is negative.



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**68.** water can conduct electricity.



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**69.** Electroscope is a device used to charge a body by induction.



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**70.** Give some uses of electroplating.



**Watch Video Solution**



**71.** What are anodes and cathodes?



**Watch Video Solution**

**72.** How thunder takes place?



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**73.** Write the difference between conductor and insulator.





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74. Distinguish between series and parallel circuit.



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75. what is electroscope? Explain how it works?



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**Example**

1. The charge acquired by an ebonite rod rubbed with a piece of flannel is negative.



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2. A charged body induces an opposite charge on an uncharged body when they are brought near.



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3. Electroscope is a device used to charge a body by induction.



[Watch Video Solution](#)

4. water can conduct electricity.



[Watch Video Solution](#)

5. In parallel circuit, current remains the same in all components.



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6. when a glass rod is rubbed with silk cloth, both get charged.



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7. When a comb is rubbed with dry hair, it attracts small bits of paper.



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8. When you touch the metal disc of an electroscope with a charged glass rod the metal leaves get diverged.



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9. In an electroscope the connecting rod and the leaves are all metals.



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**10.** One should not use an umbrella while crossing an open field during thunderstorm.



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**11.** Assertion & Reason : Direction : Mark the correct choice as : Assertion : People struck by lightning receive a severe electrical shock.  
Reason : Lightning carries carries very high voltage.



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**12. Assertion & Reason : Direction :** Mark the correct choice as : Assertion : It is safer under a tall tree during lightning . Reason : It will make you fore lightning .



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**13. How changes are produced by friction?**



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**14.** What is earthing?



**Watch Video Solution**

**15.** What is electric circuit ?



**Watch Video Solution**

**16.** What is electroplating?



**Watch Video Solution**

**17.** Give some uses of electroplating.



**Watch Video Solution**

**18.** Explain three ways of charge transfer.



**Watch Video Solution**

**19.** what is eletroscope? Explain how it works?



**Watch Video Solution**

20. Explain series and parallel circuit.



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21. the materials which does not allow electric current is called \_\_\_\_.



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22. Silk cloth has excess of electrons, so it becomes positively charged.



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23. Electric charge is measured in \_\_\_\_\_.



[Watch Video Solution](#)

24. Protons carry negative charge and electrons carry positive charge.



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**25.** The gold- leaf electroscope was developed by Abraham Bennent..



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**26.** Assertion (A) : Charges flow from higher potential to the lower potential. Reason (R) : Current flows mainly due to flow of electrons.

A. If both assertion and reason are true and reason is the correct explanation of

the assertion.

B. If both assertion and reason are true, but the reason is not the correct explanation of the assertion.

C. If the assertion is true, but the reason is false.

D. If the assertion is false, but the reason is true.

**Answer:**



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**27.** Assertion : Parts of car and bicycle are made iron with chromium coating. Reason : Chromium does not corrode and resist scratches.

A. If both assertion and reason are true and reason is the correct explanation of the assertion.

B. If both assertion and reason are true, but the reason is not the correct

explanation of the assertion.

C. If the assertion is true, but the reason is false.

D. If the assertion is false, but the reason is true.

**Answer:**



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**28.** Assertion (A) : Insulators do not allow the flow of current through themselves. Reason (R) : They have no free charge carriers.

A. If both assertion and reason are true and reason is the correct explanation of the assertion.

B. If both assertion and reason are true, but the reason is not the correct explanation of the assertion.

C. If the assertion is true, but the reason is false.

D. If the assertion is false, but the reason is true.

**Answer:**



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**29.** Assertion (A) : A current carrying wire should be charged. Reason (R) : The current in

a wire due to flow of free electrons in a definite direction.

A. If both assertion and reason are true and reason is the correct explanation of the assertion.

B. If both assertion and reason are true, but the reason is not the correct explanation of the assertion.

C. If the assertion is true, but the reason is false.

D. If the assertion is false, but the reason is true.

**Answer:**



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**30.** Assertion : When both the strips of electroscope is charged with similar charge, they repel each other and become wide open.

Reason : Like charges always repel each other.

A. If both assertion and reason are true and reason is the correct explanation of the assertion.

B. If both assertion and reason are true, but the reason is not the correct explanation of the assertion.

C. If the assertion is true, but the reason is false.

D. If the assertion is false, but the reason is true.

**Answer:**



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**31.** Name the process which show the chemical effect of electric current?



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**32.** What are electrodes?



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**33.** Who discovered static electricity or lightning in clouds?



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**34.** What are charged objects?



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**35.** What do you mean by earthing ?



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**36.** A layer of zine coated over iron. Why?



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**37.** Name the effect of current responsible for the glow of the bulb in an electrical circuit.



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**38.** Name a few appliances which work on the basis of heating effect of current.



**Watch Video Solution**

**39.** what are the essential components of an electric circuit?



**Watch Video Solution**

**40.** How can you save yourselves from lightning?



**Watch Video Solution**

**41.** State some advantages electroplating.



**Watch Video Solution**

**42.** Write the differences between conductors and insulators.



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**43.** What are anodes and cathodes?



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**44.** What will be the charges on silk and glass rod when they are rubbed against each other?



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**45.** When a negatively charged glass rod is brought near another glass rod, the rod will move apart. Give reason.



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**46.** When an ebonite rod is rubbed with fur, the fur transfers electrons to the ebonite rod. Why?



**Watch Video Solution**

**47.** List the ways in which you can an object.



**Watch Video Solution**

**48.** How thunder takes place?



**Watch Video Solution**

**49.** Sometimes lighting may be seen before the thunder is heard.Why?



**Watch Video Solution**

**50.** What do you mean by electrical Earthing ?



**Watch Video Solution**

**51.** Explain the structure and working of gold-leaf electroscope with a diagram.



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**52.** Write a not on : Charging.





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**53.** Write a not on : Electrical discharge.



[Watch Video Solution](#)

**54.** Explain thre function of lightning arrestor with a diagram.



[Watch Video Solution](#)

**55.** Write a note on. Fuse,



**Watch Video Solution**

**56.** Write a note on Electric irons.



**Watch Video Solution**

**57.** Distinguish between series and paralalled circuit.



**Watch Video Solution**



**58.** Will the bulb glow if the end B is dipped in pure water?



**Watch Video Solution**

**59.** Identify the charge on the body with a question mark.



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**60.** The bulb does not glow in the set up show in figure. List the possible reasons.



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**61.** During the construction of a building, the lightning conductor was left hanging in the air by mistake will it be effective? Explain.



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**62.** During lightning and thunder we should avoid standing in ground and spaces Why?



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**63.** You might have observed on a dry day that whwn you touvh the screen of a television you get a slight shock. why does it happen?



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