

## **PHYSICS**

## **BOOKS - MBD -HARYANA BOARD**

# CHEMICAL EFFECTS OF ELECTRIC CURRENT

**Example** 

1. Fill in the blank

Most liquids that conduct electricity are

solutions of \_\_\_\_, and \_\_\_\_

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2. Fill in the blank

The passage of an electric current through a solution causes \_\_\_\_ effects.



3. Fill in the blank

If you pass current through copper sulphate

solution, copper gets deposited on the plate connected to the \_\_\_\_ terminal of the battery.



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4. Fill in the blank

The process of depositing a layer of any desired metal on another material by means of electricity is called\_\_\_\_



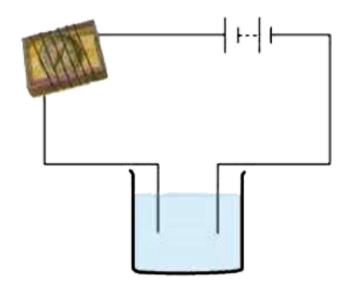
**5.** When the free ends of a tester are dipped into a solution, the magnetic needle shows deflection. Can you explain the reason?



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**6.** Name three liquids, which when tested in the manner shown in may cause the magnetic

needle to deflect.





**7.** A tester is used to check the conduction of electricity through two liquids, labelled A and

B. It is found that the bulb of the tester glows brightly for·liquid A while it glows very dimly for liquid B. What conclusion would you draw?

A. liquid A is better conductor than liquid B

B. Liquid B is better conductor than liquid

A.

C. both liquids are equally conducting.

D. conducting properties of liquids cannot

be campared, in this manner.

Answer:



**8.** Does pure water conduct electricity? If not, what can we do to make it conducting?



**9.** In case of a fire, before the firemen use the water hoses, they shut off the main electrical supply for the area. Explain why they do this.



**10.** A child staying in a coastal region tests the drinking water and also the seawater with his tester. He finds that the compass needle deflects more in the case of seawater. Can you explain the reason?



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11. Is it safe for an electrician to carry out electrical repairs outdoors during heavy downpour? Explain.

12. Paheli had heard that rain water is as good as distilled water. So, she collected some rain water in a clean glass tumbler and tested it using a tester. To her surprise, she found that the compass needle showed deflection. What could be the reasons?



**13.** Prepare a list of objects around you that are electroplated.



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**14.** The process that you saw in Activity 14.7 is used for purification of copper. A thin plate of pure copper and a thick rod of impure copper are used as electrodes. Copper from impure rod is sought to be transferred to the thin copper plate. Which electrode should be

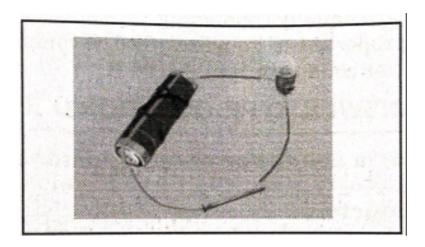
attached to the positive terminal of the battery and why?



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**15.** In order to kept the flow of electricity continue in circuit, which of the following items should be used in place of iron nail in

the given circuit.



- A. Graphite
- B. Plastic
- C. Wood
- D. Rubber

**Answer:** 



**16.** Pankaj knows that pure water is bad conductor of electricity. If you dissolve salt in water then what will happen?

A. Water will become good conductor of electricity.

B. Water will remain bad conductor of electricity

C. Water will neithert be a good conductor nor a bad conductor of electricity

D. None of the above

## **Answer:**



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**17.** Which out of the following is insulator of electricity?

A. Acid

- B. Bases
- C. Pure water
- D. Solutions to salt



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**18.** Which out of the following is not an insulator?

A. Rubber

- B. Plastic
- C. Wood
- D. Copper



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**19.** What is the effectr of passing electric current through the solution of electrolytes?

A. magnetic effect

- B. heat effect
- C. chemical effect
- D. None of the above



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**20.** Which effect of electric current current is used in electroplating ?

A. magnetic effect

- B. chemical effect
- C. heat effect
- D. None of the above



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**21.** The availability of some amount of impurities make water:

A. conductor

- B. insulator
- C. pure
- D. none of these



- **22.** A tester is used to check the conduction of electricity through two liquids, labelled A and
- B. It is found that the bulb of the tester glows

brightly for·liquid A while it glows very dimly for liquid B. What conclusion would you draw?

A. liquid A is better conductor than liquid B

B. Liquid B is better conductor than liquid

A.

C. both liquids are equally conducting.

D. conducting properties of liquids cannot

be campared, in this manner.

# **Answer:**



23. Is human body a conductor or an insulator?



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**24.** What are conductors?



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25. What are insulators? Give examples.



**26.** Do all liquids allow electric current to pass through them?



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**27.** What is LED?



28. Name the phenomenon of breaking up of a chemical compound under the action of electric current.



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29. What do we get on electrolysis of acidulated water?



**30.** Which effect of current is used in electroplating?



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**31.** Which effect of current makes a bulb glow?



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**32.** Detection of small currents can be done by



33. Name different effects of electric current.



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**34.** Is air an insulator?



**35.** Name few liquids which can conduct electricity.



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**36.** Can conductors be classified as insulators or vice versa under special conditions?



**37.** Which commonly used liquids can conduct electricity?



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**38.** What are electrodes?



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**39.** By which phenomenon cheap articles are coated with gold or expensive metals?



**40.** Is electroplating useful process?



**41.** Air is a bad conductor of electricity. Show with an experiment.



**42.** What is electrolysis? **Watch Video Solution 43.** What is electroplating? **Watch Video Solution** 44. Give a brief account of LED. **Watch Video Solution** 

**45.** Is water a good conductor? What happens when common salt is added to water?



**46.** What is electroplating? Give its uses.



**47.** How can a spoon be copper plated?



