

CHEMICAL EFFECTS OF ELECTRIC CURRENT

WORKSHEET - 1

Class 8

Multiple Choice Question:-

1. Which of the following will conduct electricity?

- a. pure water
- b. impure water
- c. distilled water
- d. all the above

2. LED is :-

- a. light emitting diode
- b. light evolving diode
- c. light eliminating diode
- d. light entering diode

3. An electrolytic cell converts :-

- a. electrical energy to light energy
- b. chemical energy to electrical energy
- c. chemical energy to light energy
- d. electrical energy to chemical energy

4. An electric current is generated due to :-

- a. flowing protons
- b. flowing neutrons
- c. flowing electrons
- d. all the above

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Fill in the blanks :-

1. An electric current can bring about a _____ change.
2. An _____ when dissolved in water, breaks up into ions.
3. _____ are materials that allow electricity to flow through them.

4. _____ are also called as insulators.
5. A source of electricity is called a _____ .

ONE MARK QUESTIONS

1. Is human body a conductor or an insulator ?
2. What are conductors ?
3. What are insulators ? Give two examples.
4. Do all liquids allow electric current to pass through them ?
5. What is LED?

ANSWER THE FOLLOWING QUESTIONS

1. What is electroplating? Give its uses.
2. A child staying in the coastal regions tests the drinking water and also the sea water with his tester. He finds that the compass needle deflects more in case of sea water. Can you explain the reason?
3. Prepare a list of objects around you that are electroplated.
4. Give a brief account of LED.

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Answer Key: -

Multiple Choice Question:-

1. b
2. a
3. d
4. c

Fill in the blanks :-

1. chemical,
2. electrolyte,
3. conductors,
4. non- conductors,
5. cell.

ONE MARK QUESTIONS

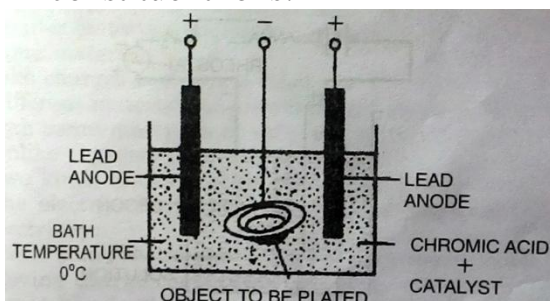
1. Human body is a conductor.
2. **Conductor** : Materials like silver , copper, aluminium, iron, human body etc. which allow electric current to pass through them are called conductors.
3. **Insulators** : Materials like wood, rubber, silk, plastic etc. which do not allow electric current to pass through them are called insulators.
4. No
5. LED – Light Emitting Diode.

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ANSWER THE FOLLOWING QUESTIONS

1. **Electroplating:** It is the process by which a costlier metal is deposited on base or cheap metal by passing current through its salt solution. When an electric current is passed through an electrolyte (the compound) breaks up into its constituent ions.



Positive ions are attracted towards cathode (negative electrode) and negative ions are attracted towards anode (positive electrode). This process of electrolysis is used in plating materials with a thin coat of metals is called electroplating.

Uses of Electroplating: (i) Iron is electroplated with nickel or chromium to prevent it from rusting.

(ii) Artificial jewellery, made from cheap metals is electroplated with expensive metals like gold and silver to give it an attractive look.

(iii) Handle bars of cycle, wheel rims car parts etc. are coated with chromium to give a shiny look.

(iv) The cans are made by electroplating a layer of tin on the iron.

2. Since sea water is rich in salt concentration. So, compass needle is more deflected, in sea water as compared to the drinking water available in coastal areas.

3. Electroplated objects are:

- (i) Handle bar of cycle.
- (ii) Wheel rims.
- (iii) Artificial ornaments.
- (iv) Bath taps.
- (v) Kitchen gas burners.

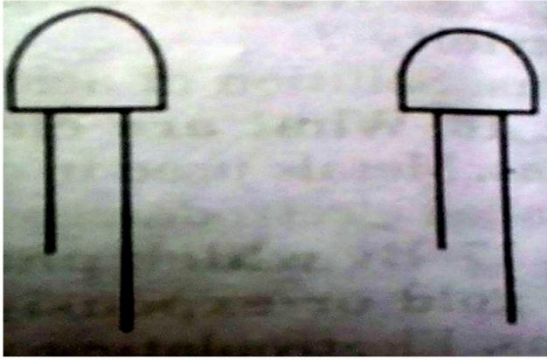
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4. **LED:** It is light emitting diode. It glows even when the current is very small. It consists of a bulb with two legs called leads. One leg is longer and other leg is shorter. Longer leg is attached to +ve terminal of battery and shorter leg is attached to – ve terminal.



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