

Chemical Effects of Electric Current

ORAL QUESTIONS

A. Answer these questions orally.

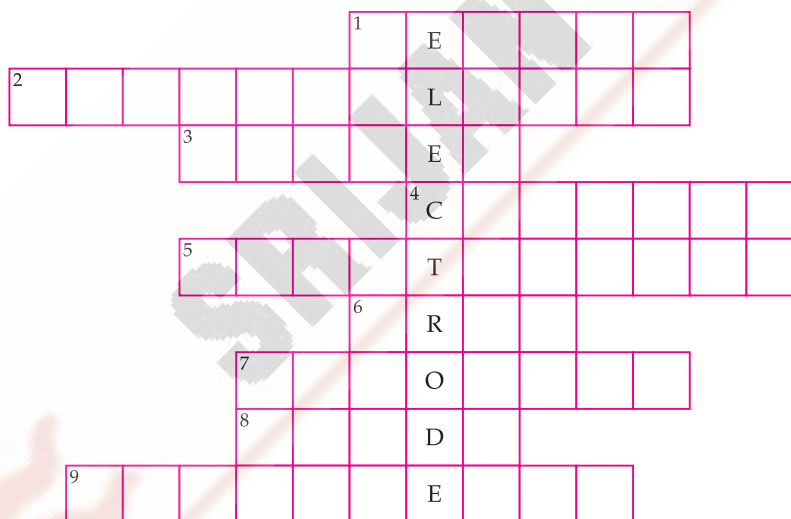
1. Name two good conductors of electricity.
2. Name two bad conductors of electricity.
3. Give any two applications of the magnetic effect of current.
4. What is the negative electrode of a voltmeter known as?

B. Rewrite the following statements correctly.

1. Chromium metal rusts easily in the presence of oxygen and moisture.
2. The full form of LED is light energy diode.
3. Distilled water is a good conductor of electricity.

PUZZLE/QUIZ

C. Complete the following word ladder with the help of the given clues.



1. These are good conductors of electricity.
2. The process of causing a chemical change in a solution by passing electric current through it.
3. A bad conductor of electricity.
4. The electrode connected to the negative terminal of a battery.
5. A solution or paste used in electrolysis.

6. A metal that gets rusted easily.
7. A metal use for electroplating iron articles.
8. The electrode connected to the positive terminal of a battery.
9. The container carrying the electrolyte along with the electrodes.

CLASS TEST

D. MCQ– Tick (✓) the correct option.

1. Which of the following changes can be caused by electric current?
 - (a) Change in the colour of the electrolyte ☐
 - (b) Depositing a metal at the cathode ☐
 - (c) Releasing gas bubbles at the electrode ☐
 - (d) All of these ☐
2. Which of the following statements is incorrect?
 - (a) The apparatus used for electrolysis is called voltameter ☐
 - (b) Electroplating corrodes the metal underneath ☐
 - (c) Most liquids conduct electricity ☐
 - (d) Iron rusts in the presence of oxygen and moisture ☐
3. The process which causes decomposition of the chemical compounds present in the electrolyte is

(a) electroplating <input type="checkbox"/>	(b) electrolysis <input type="checkbox"/>
(c) electrolyte <input type="checkbox"/>	(d) electrode <input type="checkbox"/>
4. Which of these devices are based on the ‘magnetic effect of current’?

(a) geyser <input type="checkbox"/>	(b) electric iron <input type="checkbox"/>
(c) electric generator <input type="checkbox"/>	(d) toaster <input type="checkbox"/>

E. Very short answer questions.

1. What is the use of a tester?

2. Name any two materials which can be added to distilled water to make it electrically conducting.

3. What are electrodes?

4. What is a cathode?

5. What is anode?

6. What is an electrolyte?

7. What is a voltmeter?

8. What is electrolysis?

9. Who discovered electrolysis?

10. Name a few articles which you think are electroplated that you use in your daily life?

11. What is electroplating?

12. Which effect of electric current is used when a layer of copper is deposited on iron article?

F. Short answers questions.

1. What do you understand by heating effect of current?

2. What do you understand by magnetic effect of current?

3. What changes can occur in the electrolyte and the electrodes during electrolysis?

4. Why is electrolysis widely used in chemical and commercial industries?

5. What are the disadvantages of chrome-plating?

G. Long answer questions.

1. Describe the process of electroplating an iron key with copper metal. Draw diagram also.



HOME ASSIGNMENT

H. Think and answer.

1. Mayank took an iron spoon and made an attempt to electroplate it with copper metal.

(a) What should be used as an electrolyte?

(b) What should be connected to the positive terminal of the battery?

(c) What should be connected to the negative terminal of the battery?

(d) What would be observed after passing electric current for about 30-40 minutes.

2. Smita touched an electric iron with wet hands and experience an electric shock. Why?

WORKSHEET

I. Give reasons for the following.

1. Iron is used for manufacturing window frames and grills.

2. Chrome-plating is quite popular in the industry.

3. All items cannot be made from chrome.

4. Distilled water does not conduct electricity.

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