

MULTIPLE CHOICE QUESTIONS

1. An electric current can produce
 - (a) heating effect only.
 - (b) chemical effect only.
 - (c) magnetic effect only.
 - (d) chemical, heating, and magnetic effects.
2. Boojho and Paheli performed experiments taking similar bulbs and cells but two different solutions A and B as shown in Fig.14.1.

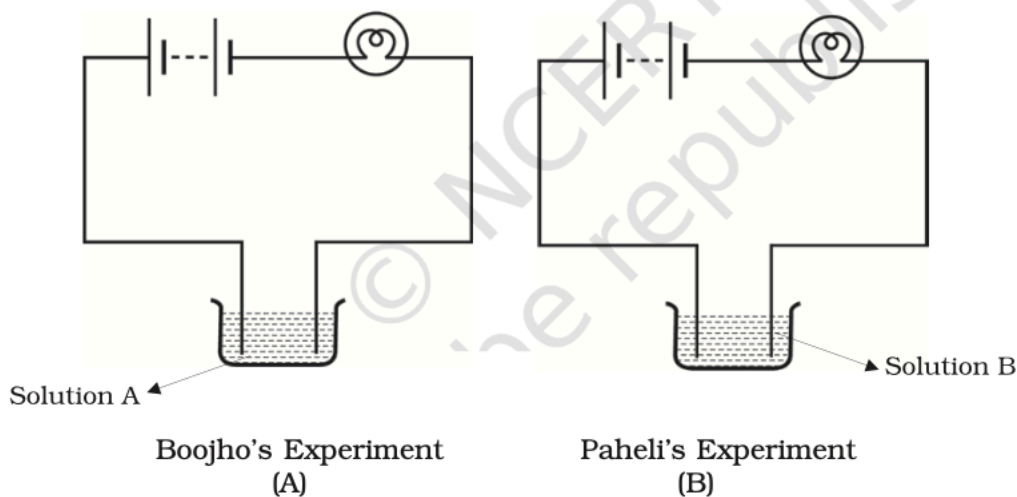


Fig.14.1

They found that the bulb in the setup A glows more brightly as compared to that of the setup B. You would conclude that

- (a) higher current is flowing through the circuit in setup A.
- (b) higher current is flowing through the circuit in setup B.
- (c) equal current is flowing through both the circuits.
- (d) the current flowing through the circuits in the two setups cannot be compared in this manner.

3. Boojho's uncle has set up an electroplating factory near his village. He should dispose off the waste of the factory
- in the nearby river.
 - in the nearby pond.
 - in the nearby cornfield.
 - according to the disposal guidelines of the local authority.
4. When electric current is passed through a conducting solution, there is a change of colour of the solution. This indicates
- the chemical effect of current.
 - the heating effect of current.
 - the magnetic effect of current.
 - the lightning effect of current.
5. Which one of the following solutions will not conduct electricity?
- | | |
|-----------------|-------------------|
| (a) lemon juice | (c) tap water |
| (b) vinegar | (d) vegetable oil |
6. Which of the following metals is used in electroplating to make objects appear shining?
- | | |
|------------|---------------|
| (a) iron | (c) chromium |
| (b) copper | (d) aluminium |

7.

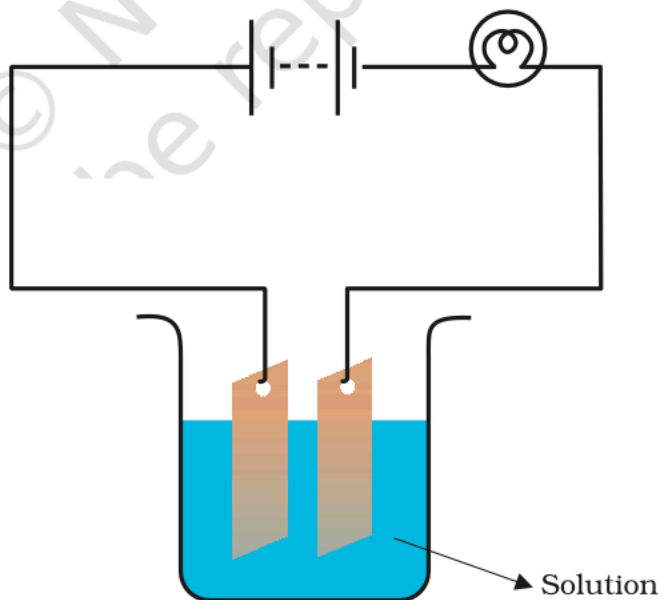


Fig. 14.2

Which of the following solutions will not make the bulb in Fig 14.2 glow?

- (a) sodium chlorides
- (b) copper sulphate
- (c) silver nitrate
- (d) sugar solution in diluted water

VERY SHORT ANSWER QUESTIONS

8. Fill in the blanks

- (a) The object to be electroplated is taken as _____ electrode.
- (b) One of the most common applications of chemical effect of electric current is _____.
- (c) Small amount of a mineral salt present naturally in water makes it a _____ of electricity.
- (d) Electroplating of _____ is done on objects like water taps and cycle bell to give them a shiny appearance.

9. Why is a layer of zinc coated over iron?

10. Will the solution of sugar in distilled water conduct electricity?

11. Name the effect of current responsible for the glow of the bulb in an electric circuit.

SHORT ANSWER QUESTIONS

12. Boojho made the circuit given in Fig. 14.3 and observed that the bulb did not glow. On Paheli's suggestion he added one more cell in the circuit. The bulb now glows. Explain.

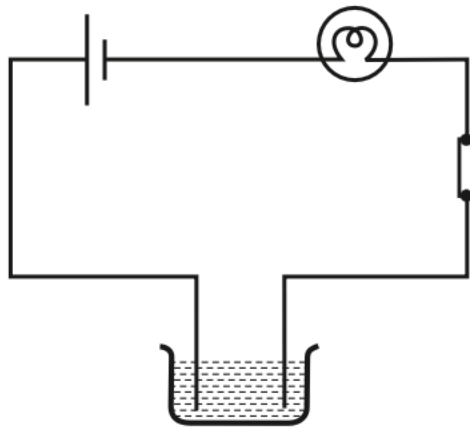


Fig. 14.3

13. Paheli set up an experiment using liquid A in the beaker as shown in Fig. 14.4. She observed that the bulb glows. Then she replaced the liquid A by another liquid B. This time the bulb did not glow. Boojho suggested replacing the bulb by an LED. They observed that the LED glows. Explain.

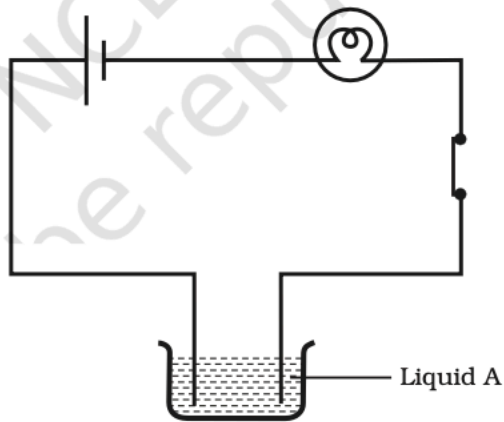


Fig. 14.4

14. Paheli wants to deposit silver on an iron spoon. She took silver nitrate (AgNO_3) solution in a beaker and setup a simple circuit for electroplating. Which terminal of the battery should the spoon be connected to? What material should the other electrode be made of?

15. Why is tin electroplated on iron to make cans used for storing food?

16. Observe Fig. 14.5.

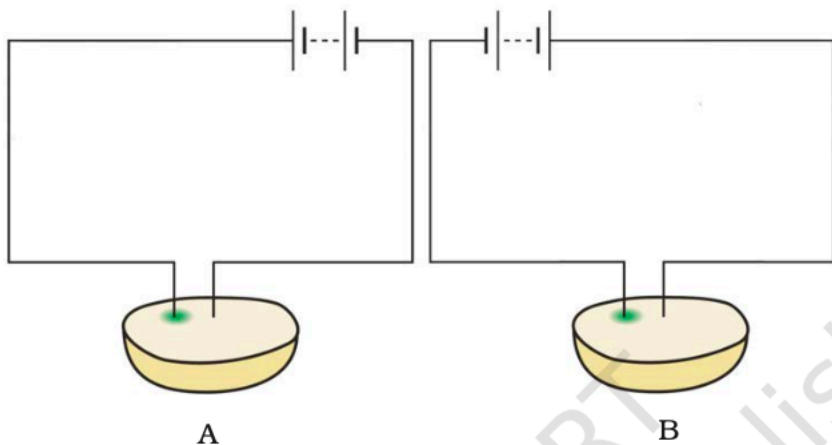


Fig. 14.5

Which of these two circuits A or B shows the correct observation?

17. Observe the following circuits carefully. In which circuit will the bulb glow. Write 'Yes' or 'No' in the blank space provided along each of the circuit given in Fig. 14.6.



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Piece of coal



Iron nail

.....



Eraser

.....



Steel spoon

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Fig. 14.6