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

3. Name three liquids, which when tested in the manner shown in Fig.11.9, may cause the magnetic needle to deflect.

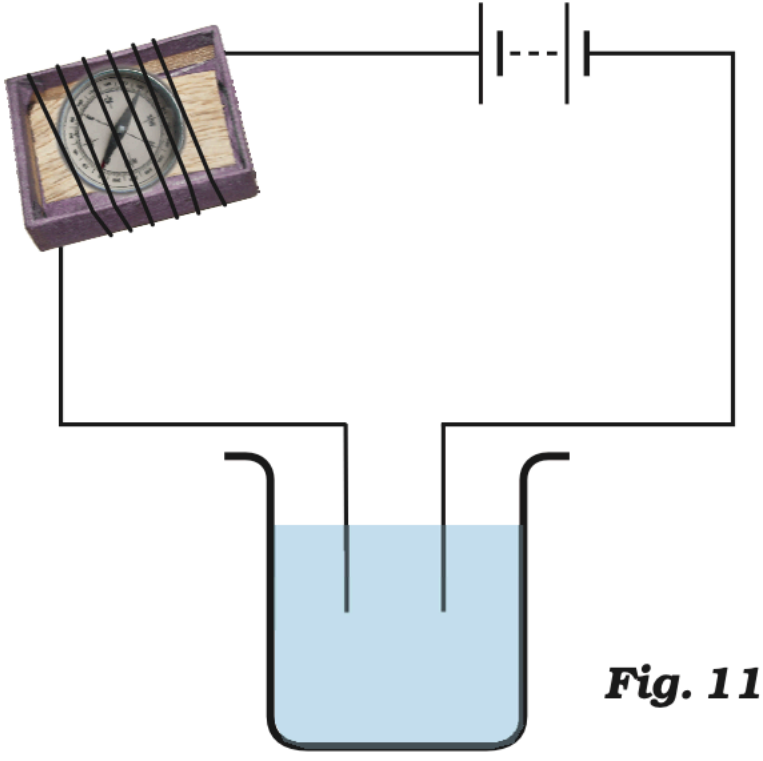


Fig. 11.9

4. The bulb does not glow in the setup shown in Fig.11.10. List the possible reasons. Explain your answer.

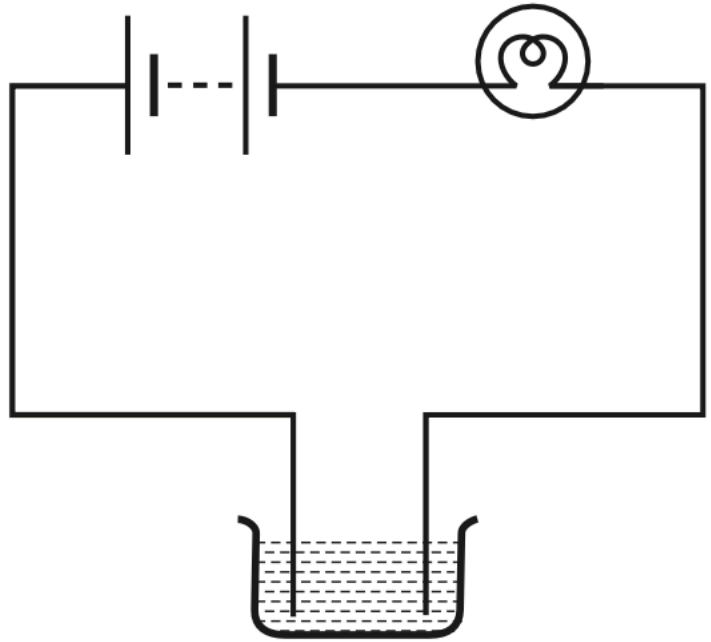
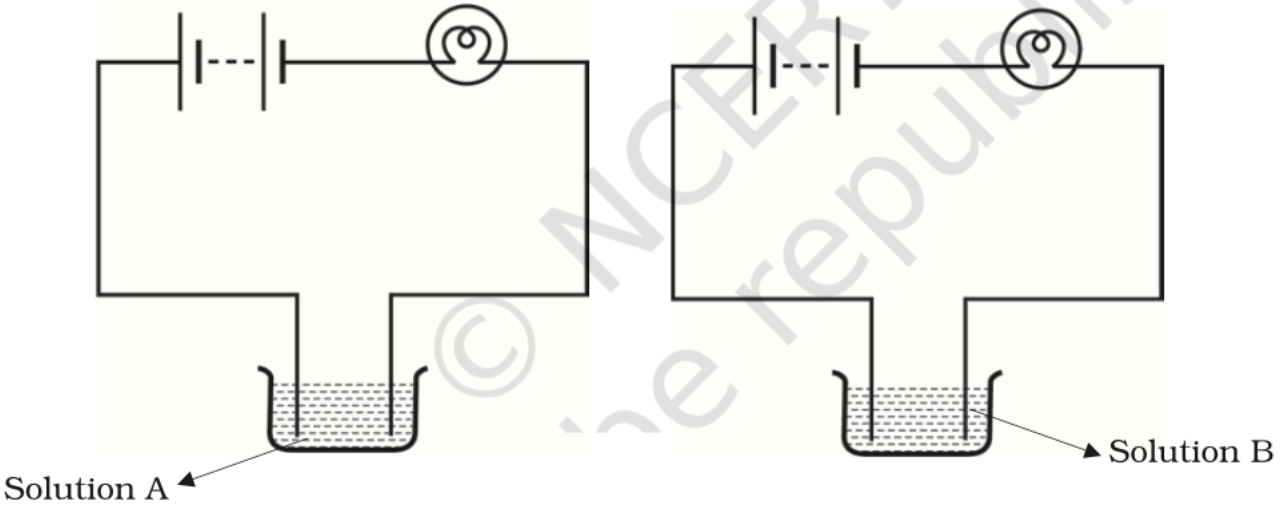


Fig. 11.10

8. 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?

2. Boojho and Paheli performed experiments taking similar bulbs and cells but two different solutions A and B as shown in Fig.14.1.



Boojho's Experiment (A)

Paheli's Experiment (B)

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.

5. Which one of the following solutions will not conduct electricity?

(a) lemon juice
(b) vinegar
(c) tap water
(d) vegetable oil

6. Which of the following metals is used in electroplating to make objects appear shining?

(a) iron
(b) copper
(c) chromium
(d) aluminium

7.

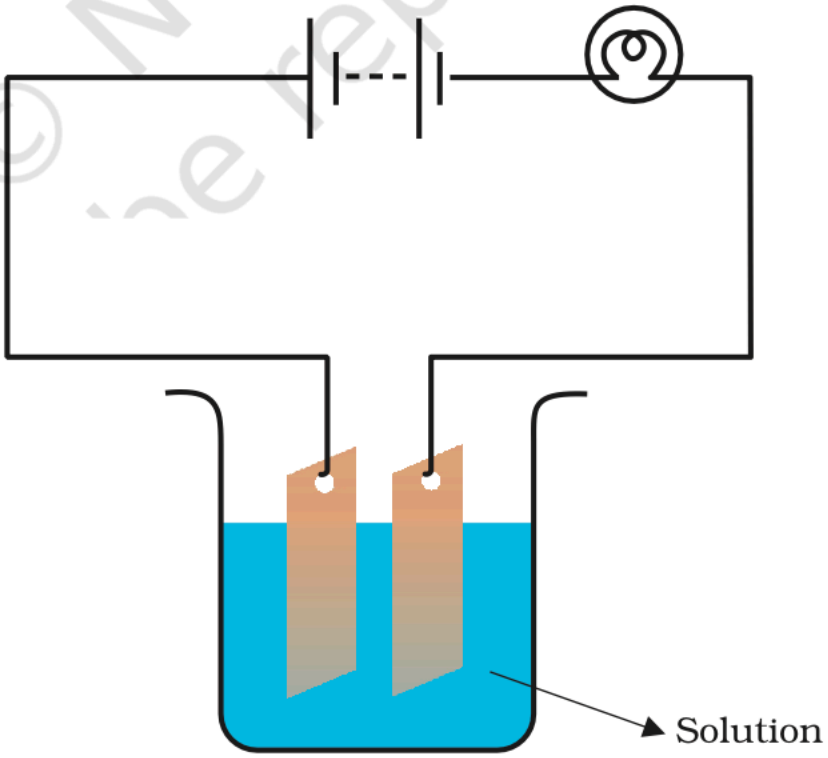


Fig. 14.2

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

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

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

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

20. Observe the circuit given in Fig. 14.8.

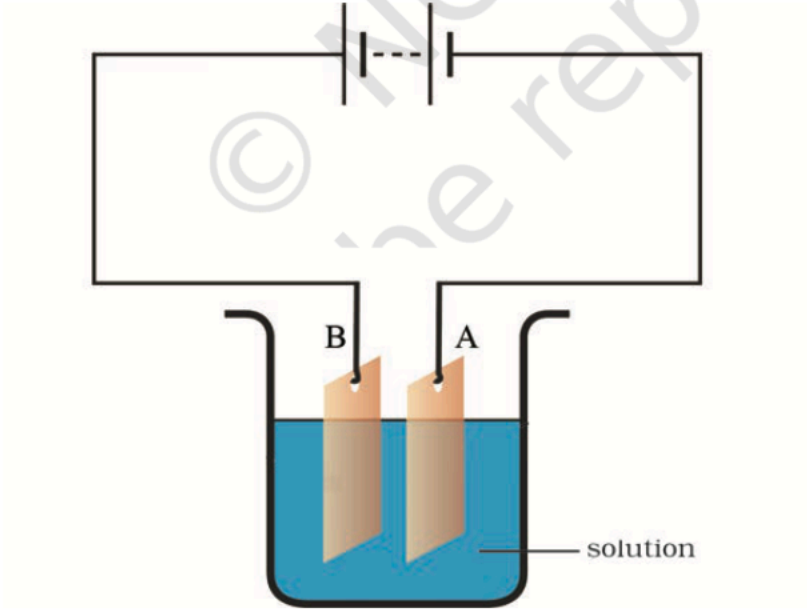


Fig. 14.8

Boojho set up this circuit for purification of copper. What will be the nature of – (i) plate A (ii) plate B (iii) the solution.

Explain the process of purification.

23. Observing that the bulb does not glow in the circuit shown in Fig. 14.11 A, Boojho changed the circuit as shown in Fig 14.11 B. He observed deflection in the magnetic compass.

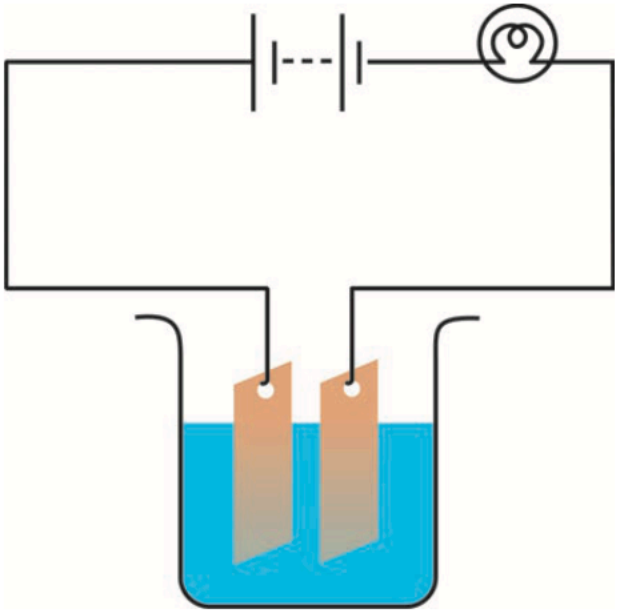


Fig. 14.11 A

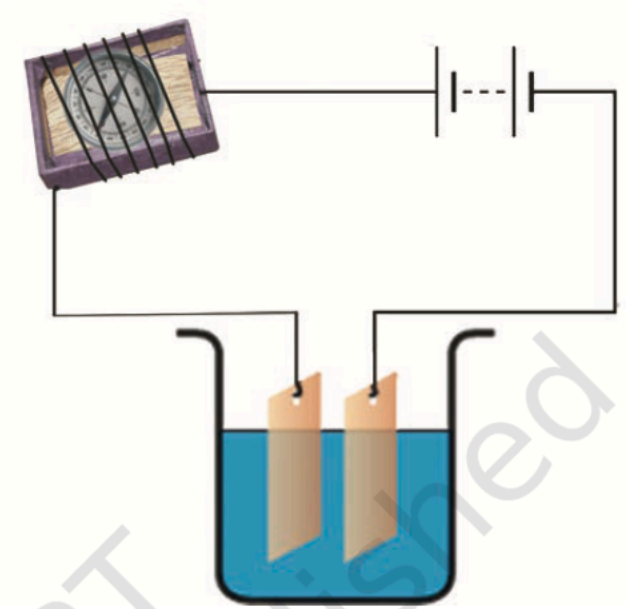


Fig. 14.11 B

(i) What does the deflection in magnetic compass indicate?
(ii) Why did the bulb not glow in Fig.14.11 A?
(iii) What would be the effect of increase in the number of turns in the coil wound around the magnetic compass in Fig. 14.11B?
(iv) What will be observed if the number of cells are increased in the circuit shown in Fig. 14.11B?