

St. Andrews Scots Sr. Sec. School

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Session: 2025-2026 – Answer Key

Class: VIII

Subject: Science

Chapter: Chemical Effects of Electric Current

CHECK POINT 1

1. poor
2. weak
3. minerals
4. metals
5. magnetic

CHECK POINT 2

- 1.(F)
2. (T)
3. (T)
4. (T)

PRACTICE TIME

A. Tick (✓) the correct answer:

1. (b)
2. (a)
3. (c)
4. (b)
5. (c)
6. (d)

B. Assertion-Reason Type Questions:

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

C. Match the Columns:

1. (d)
2. (e)
3. (b)
4. (a)
5. (c)

D. Fill in the blanks:

1. good
2. magnetic
3. positive
4. voltameter
5. corroded

E. Very Short Answer Type Questions:

1. Tap water is a good conductor of electricity because it contains salts in it.

2. LED (Light Emitting Diode)

3. Electrolysis.

4. Electroplating.

5. Chemical effect of electric current is used in electroplating.

F. Short Answer Type Questions:

1. An LED is a light giving device which can glow even at weak current flowing through an electric circuit.

2. Things like taps, spoons, forks, sinks, watches, belt buckles, etc., are electroplated.

3. Electroplating is done to protect the metal from corrosion and to produce an attractive finish on it.

4. The amount of metal deposited during electroplating depends upon

(i) the time for which the current is passed through the electrolyte and

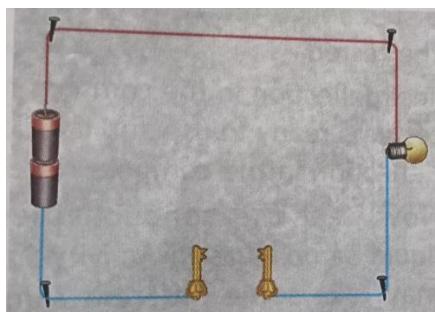
(ii) the amount of current which passes through the electrolyte.

5. Chromium metal has a shiny appearance. It does not corrode and get scratched. Also, chrome plated objects have a good lustrous shine and give a good appearance.

G. Long Answer Type Questions:

1. A conduction tester is a device which is used to test the electrical conductivity of an object. A conduction tester can be made as follows:

Procedure: Take a square sheet ($30\text{ cm} \times 30\text{ cm}$) of a thermocol, and fix four nails, a little inside the corners of it. Take three connecting wires and rub their free ends with a piece of sandpaper. Connect the dry cells, the bulb and the keys using wires. When the object to be tested is placed on the metal keys or metal keys are dipped in the liquid to be tested, the bulb starts glowing if the material conducts electric current through it, otherwise, the bulb does not glow.



Conduction tester

2. Electrolysis is widely used in chemical and commercial industries for the following purposes:

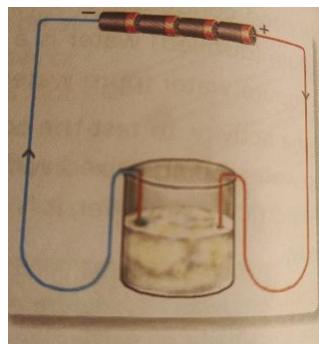
(a) Refining of impure metals into pure ones.

(b) Extraction of metals from their ores.

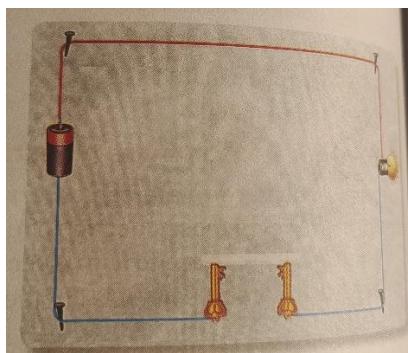
(c) Electroplating.

3. The electrical conductivity of water can be tested by following activity: Make a conductivity tester using a battery of two dry cells, two metallic keys and a torch bulb connected with the metallic connecting wires. The two keys are connected to the two free ends of the wire. Now, take water in a small beaker. Dip the ends of the tester keys in the beaker containing water.

Observation: On dipping the tester keys in water, the bulb glows. This shows that water conducts electricity. Hence, it is a good conductor of electricity.



4. Lina should connect iron spoon to the negative terminal of the battery. In the other electrode, she should use a thick silver rod or wire turned into a coil. On passing electric current through electrolyte for suitable time, the iron spoon will get plated with silver.
5. (a) A tester set up to check the conductivity of given materials is shown in the adjacent figure.
- (b) Bulb, connecting wires, dry cell and keys.
- (c) Bulb is shown glowing which is wrong because a chalk piece is bad conductor of electricity, i.e., it does not pass electricity through it.
- (d) Hint: Draw the same diagram with bulb not glowing.



H. HOTS Questions:

1. Pure water does not conduct electricity. By adding salt, fruit or vegetable juice to pure water, it can be made good conductor of electricity.
2. Due to chemical effects of current, there occur some chemical reactions in electrolyte that result in colour change.
3. I–Battery, II–Cathode, III–Anode
4. III–ELECTRICITY, I–VINEGAR, II–HONEY

Passage/Case-based Questions

1. Tap water is a good conductor of electricity. Hence, any leakage of current can give electric shock and may also be fatal.
2. An electric shock is a sudden painful feeling due to direct contact with electric current.

I. Science Quiz/Puzzle:

1. MAGNETIC FIELD
2. BAKELITE
3. ELECTROPLATING
4. CATHODE
5. LED
6. ELECTROLYTE