



Electroplating

A. Choose the correct answer:

1. What is the purpose of electroplating?

- (a) To remove rust from metals
- (b) To deposit a thin layer of metal onto an object
- (c) To purify metals
- (d) To produce electricity

2. Which of the following is commonly used in electroplating?

- (a) Copper
- (b) Silver
- (c) Gold
- (d) All of the above

3. In electroplating, the object to be plated is connected to the _____.

- (a) Cathode
- (b) Anode
- (c) Positive terminal
- (d) None of the above

B. Fill in the Blanks:

1. In electroplating, the metal to be plated is used as the _____.
2. The process of electroplating is based on the principle of _____ effect of electric current.
3. The metal ions from the _____ dissolve and get deposited on the object during electroplating.

C. Case Study:

A company manufactures cheap jewelry made of copper. To make it look more attractive and durable, they use the process of electroplating by coating the copper jewelry with a thin layer of gold. The gold ions are dissolved in the electrolyte and get deposited on the jewelry when an electric current is passed.

Case Study Questions:

1. What is the purpose of electroplating the jewelry with gold?
2. What are the roles of the anode and cathode in the electroplating process?
3. Why is electroplating used to coat jewelry with gold instead of using solid gold?

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4. What is the significance of the electrolyte in the electroplating process?

D. Short Answer Questions:

1. Define electroplating and give one real-life example where it is used.
2. What are the basic steps involved in the process of electroplating?
3. How does electroplating improve the properties of an object?

E. Long Answer Questions:

1. Explain the process of electroplating in detail, including the materials used and the role of electricity.
 2. Discuss the advantages and disadvantages of electroplating. How does electroplating help in industries?
 3. Describe the principle behind electroplating and how it is used to coat an object with a metal of choice (e.g., gold, silver, chrome).
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