Short Question / answers

1A Electric current is a stream of electrons. Only electrons can flow from a conductor which has their lower number. So negatively charged body can send electron to a positively body.

2A As we know that electric current is a stream of electrons. An electric current force is also needed which can promote the flow of electric current is known as electromotive force or the emf.

3A As a convention the direction of electric current is considered to be from positive to negative and the flow of electrons from negative to the positive terminal of the source of the charge.

4A Substances which allow the passage of electricity through their aqueous solution and undergo chemical decomposition are called electrolytic conductors.

5A The Substances which do not allow the electric current to pass through are known as the Insulator
Ex - plastics, paper, rubber, glass.

6A

7A

8A

9A

10A

6A The positively charged particles are usually metallic and are known as cation whereas the negatively charged particles are non-metallic and are known as anions.

7A Electroplating is the method of depositing one metal over another in the presence of a metal salt in aqueous solution. The water molecules is released as the final product in this process.

8A The arrangement of electrodes and electrolytes which carry out the process of electroplating is known as an electrolytic cell.

9A Electrorefining is a process to obtain metals of high grade of purity. But the impurities settle at the bottom of the electrolytic cell near the anode and is known as the anode mud.

10A Electrorefining is one of the best methods known for producing metals of high grade of purity.

Long Question answers

1A Distilled water can not conduct electricity because it does not contain ions or dissolved salts in it. Distilled water is a poor conductor of electricity. So distilled water does not allow electric current to pass through.

2A To achieve the uniform and smooth coating of Superior metal, a small current should be used for a longer time. The electroplated object should also be placed as a cathode since the metal is always deposited at the cathode. It is similar to a galvanic cell.

3A The process of purifying the impure metals by electrolysis is called electrorefining of metals. In this process, the anode is made of impure metal, and the cathode is made of a strip of pure metal. Many metals like coppers, zinc, tin are refined electrolytically.