CHAPTER-14

CHEMICAL EFFECTS OF ELECTRIC CURRENT

NOTES:

DO LIQUIDS CONDUCT ELECTRICITY?

- Some liquids are good conductors of electricity and some are poor conductors.
- Water from different sources like taps, hand pump, wells and ponds are good conductors of electricity due to the presence of mineral salts naturally in it.
- Distilled water is free of salts so it is poor conductor of electricity.
- Most liquids that conduct electricity are solutions of acids, bases and salts.

CHEMICAL EFFECTS OF ELECTRIC CURRENT

- The passage of an electric current through a conducting solution causes chemical reactions.
- The resulting effects like formation of bubbles of a gas on the electrodes, deposits of metal on the electrodes and changes of colour of the solution etc. are called chemical effects of electric currents.

ELECTROPLATING

- The process of depositing a layer of any desired metal on another material by means of electricity is called electroplating.
- Electroplating is widely used in industry for coating metal objects with a thin layer of a different metal.
- Chromium plating is done on many objects such as car parts, bath taps, kitchen gas burners, bicycle handlebars etc.
- Chromium has a shiny appearance and does not corrode and is resistant to scratches.
- Tin cans, used for storing food, are made by electroplating tin onto iron because tin is less reactive than iron. Thus, food does not come in contact with iron and is protected from getting spoilt.
- Electroplating of silver and gold is done on less expensive metals to make jewelleries ornament.
- Iron used in bridges and automobiles is electroplated with a coating of zinc to protect it from corrosion and formation of rust.
- The disposal of the used conducting solution of electroplating factories is a major problem. It is a polluting waste and there are specific disposal guidelines to protect the environment.