

SOLUTION**Section – A**

1. (i) Ammonia (ii) C₄H₁₀
 (iii) Dehydration (iv) Platinum
 (v) Conc. Sulphuric acid (vi) Carboxylic acid
 (vii) Magnesium (viii) NaOH (Caustic soda)
 (ix) Nitrate (NO₃⁻) (x) Lead Nitrate

Section – B

2. (i) (a) C₃H₄ Propyne (b) Duralumin
 (c) Inverted tunnel arrangement (d) C_nH_{2n-2}
 (e) Catenation
 (ii) (a) Bauxite (Al₂O₃.2H₂O)
 (b) To lower the fusion point of alumina and enhance the electrical conductivity.
 (c) Anodes (Graphite) get oxidized.
 (d) At Cathode

$$\text{Al}^{3+} + 3\text{e}^{-} \rightarrow \text{Al}$$
 At Anode

$$\text{O}^{2-} - 2\text{e}^{-} \rightarrow \text{O}$$

$$\text{O} + \text{O} \rightarrow \text{O}_2$$
 (e) Aluminium is a highly reactive metal form a stable oxide.
3. (i) (a) Purple colour of KMnO₄ solution fades / colourless.
 (b) Rotten egg smelling H₂S is released.
 (c) Reddish Brown colour of Bromine solution discharge.
 (d) Sugar crystals get dehydrated and form black carbon.
 (e) Yellow coloured highly explosive liquid NCl₃ is obtained.
 (ii) (a) Non-volatile nature
 (b)
$$4\text{HNO}_3 \xrightarrow{\Delta} 4\text{NO}_2 + 2\text{H}_2\text{O} + \text{O}_2$$

 (c) Due to the dissolution of Reddish brown Nitrogen dioxide gas.
4. (i) (a) The phenomena when organic compound has same molecular formula but different structural formula.
 (b) A homogenous mixture of two or more metals, or metals and non-metals.
 (c) A series of organic compounds having same general formula but successive members differ by CH₂ group.

