

Daily Tutorial Sheet 4

Level – 1

- 46.(B)** $T = 1550^{\circ}\text{C}$ (or) 1823 Kelvin is employed for obtaining molten state of the iron.
- 47.(A)** Pig iron is the form of Iron initially obtained from the blast furnace after smelting.
- 48.(B)** Magnesium is a highly reactive metal which can't be obtained by electrolysis of the aq. salt solution.
- 49.(A)** Baeyer's process is a concentration method for Bauxite ($\text{Al}_2\text{O}_3 \cdot 2\text{H}_2\text{O}$).
- 50.(A)** Cupellation method is used for extraction of Ag.
- 51.(D)** Mond's process is useful for refining of metals that can form their volatile metal carbonyl eg. Ni, Fe etc.
- 52.(A)** Hoopes process is a purification method for Al.
Cathode : Graphite rods
Anode : Alloy of (Cu + Al + Si); Al (obtained by extraction)
Electrolyte : Molten mixture of Na_3AlF_6 and BaF_2 .
- 53.(C)** Copper can be obtained in pure form by electrolysis of aq. Cu^{2+} salts.
- 54.(A)** Poling is used to remove impurities of oxides from the metal involved in metallurgy of Cu and Sn.
- 55.(B)** In zone refining, the impurities shift with the molten form.
- 56.(C)** Hg can be refined using distillation method.
- 57.(C)**
$$\underset{\text{(impure)}}{\text{Ni(s)}} + 4\text{CO(g)} \xrightarrow{50^{\circ}\text{C}} \underset{\text{(vapours)}}{\text{Ni(CO)}_4} \xrightarrow{230^{\circ}\text{C}} \underset{\text{(pure)}}{\text{Ni(s)}} + 4\text{CO(g)}$$
- 58.(C)** In electrolytic refining of Cu; Ag and Au are obtained in the anode mud.
- 59.(D)** A mixture of $\text{Pb}[\text{SiF}_6]$ and $\text{H}_2[\text{SiF}_6]$ in gelatin is used for electrolytic refining of Pb.
- 60.(D)** The form of copper obtained by Bessemerisation is known as the Blister copper.