

Daily Tutorial Sheet 2

Level – 1

- 16.(D)** Smelting is not a method of concentration. It involves extraction of metal in fused state. During smelting, the ore is heated with suitable reducing agent in order to obtain metal.
- 17.(D)** Refer chapter metallurgy
- 18.(B)** Gravity separation is used where the relative densities of ore and gangue are different. Ores like Tinstone (SnO_2), Haematite (Fe_2O_3), chromite ($\text{FeO} \cdot \text{Cr}_2\text{O}_3$) etc. are concentrated by this method.
- 19.(A)** Froth-floatation method involve adsorption of the surfactant (sodium ethyl xanthate) over a film of oil.
- 20.(D)** Froth-floatation method is useful for sulphide ores which are not soluble water. Hence it is useful for sulphide ores of copper.
- 21.(A)** Fe_2O_3 (oxide ore) is concentrated by gravity separation method.
- 22.(C)** SnO_2 (cassiterite) is separated from Fe_2O_3 by the electromagnetic separation.
- 23.(B)** Smelting is NOT a concentration method.
- 24.(B)** Bauxite is concentrated by chemical leaching.
- 25.(D)** Sulphide ores are insoluble in water; shows affinity towards non-polar medium like oil.
- 26.(C)** Fact
- 27.(C)** Cerussite (PbCO_3) is concentrated by gravity separation method.
- 28.(C)** $2\text{Cu}_2\text{O} + \text{Cu}_2\text{S} \xrightarrow{\Delta} 6\text{Cu} + \text{SO}_2(\text{g}) \uparrow$
- 29.(A)** All are correct reduction process carbon can reduces most of the oxides.
- 30.(B)** $\text{CuS} + \text{O}_2 \longrightarrow \text{CuO} + \text{SO}_2$; $\text{CuS} + \text{CuO} \longrightarrow \text{Cu} + \text{SO}_2$