Daily Tutorial Sheet 3	Level – 1

31.(C) Roasting involves heating of ore (below its m.pt.) in presence of air or oxygen. During roasting moisture and volatile oxides of some metals like Se, As, Sb etc. are removed. S is expelled in the form of SO_2 or SO_3 or as sulphate.

32.(C) Calcination is the process of heating ore in the absence of air.

33.(B) Oxides of Fe, Cu, Pb, Sn, Zn, Mn, Co etc. are reduced by carbon reduction method.

34.(A) Lead is mainly extracted by self reduction method while tin is extracted by carbon reduction method.

35.(C) Self reduction is not applicable for Zn.

36.(B) $\text{metal oxide} + \underset{(R.A)}{Al} \longrightarrow \underset{(molten)}{m} + Al_2O_3(s)$

37.(C) $\underset{(molten)}{Al_2O_3} \xrightarrow{\text{electrolysis}} \underset{(molten\ cathode)}{Al} + \underset{(anode)}{O_2}$

38.(C) Thermite process is useful to convert chromite ores (eg. FeO, Cr_2O_3) into Cr(molten)

39.(C) Electrometallurgy is useful for Al

40.(C) $\underset{(molten)}{MgCl_2} \xrightarrow[(2)\ Cu(s)\ anode]{(1)\ Fe\ cathode} \underset{(molten\ cathode)}{Mg} + \underset{(anode)}{Cl_2(g)}$

41.(C) Auto reduction/self reduction is useful for extraction of carbon.

42.(A) $Cu_2S + 2Cu_2O \longrightarrow 6Cu + SO_2(g)\uparrow$ is a self reduction, used in extraction of Cu.

43.(B) $SiO_2(s) + FeO(s) \xrightarrow{\Delta} \underset{(molten)}{FeSiO_3}$

44.(A) $CaCl_2 + CaF_2$ molten mixture is used to extract Ca.

45.(B) Pb is mainly extracted by self reduction method.