Daily Tutorial Sheet-13	Level-3

147.(A) $CoO + B_2O_3 \longrightarrow Co(BO_2)_2$ (blue bead)

148.(B) As $Al(OH)_3$ is amphoteric in nature and thus form $[Al(H_2O)_2(OH)_4^-]$.

149.(D) Due to small size of boron, the sum of its first three ionization enthalpies is very high. This prevents it to form $+3$ ions.

150.(C) The reactions involved are

$$\underset{(X)}{3B_2H_6} + 6NH_3 \longrightarrow \underset{(Y)}{2B_3N_3H_6} + 12H_2;$$

$$B_2H_6 + NH_3(\text{excess}) \xrightarrow{\text{at higher temperature}} (BN)_n + H_2$$

151.(B) Very pure silicon is obtained by zone refining.

152.(D) In TlX_3, Tl exist as Tl^+ due to inert pair effect