Level - 1	**DTS-4**

46.(D) Oxides of Trivalent metal are also called sesqui oxide

47.(A) BF_6^{3-} does not exist due to unavailability of vacant d-orbitals.

48.(D) Co-ordinate bond is called Dative Bond

49.(B) $2\,NaBH_4 + I_2 \longrightarrow B_2H_6 + 2\,NaI + H_2$

50.(C) Refer NCERT

51.(C) $H_3BO_3 + H_2O \rightleftharpoons B(OH)_4^- + H^+$

52.(B) BH_3 exists as dimer due to absence of Back Bonding

53.(A) BI_4^- does not exist due to steric hinderance lesser the steric hindrance, more will be the stability.

54.(B) $BCl_3 + LiAlH_4 \longrightarrow B_2H_6 + LiCl + AlCl_3$

$B_2H_6 + H_2O \longrightarrow H_3BO_3 + H_2$

$H_3BO_3 \xrightarrow[\text{heat}]{\text{Red}} B_2O_3$

55.(C) Oxides of Be and Al are amphoteric.

56.(A) Refer NCERT

57.(D) $SiF_4 + H_2O \longrightarrow \underset{(A)}{Si(OH)_4} \xrightarrow{\Delta} \underset{(B)}{SiO_2} \xrightarrow{Na_2CO_3} \underset{(C)}{Na_2SiO_3}$

58.(D) SiO_2 : sp^3 -hybridised ; CO_2 : sp -hybridised ; Graphite : sp^2 -hybridised

% p character SiO_2 > Graphite > CO_2

59.(C) R_3SiCl acts as chain stopping unit.

60.(D) $BCl_3 + 3H_2O \longrightarrow B(OH)_3 + 3HCl$

$COCl_2 + H_2O \longrightarrow CO_2 + 2HCl$

$SiCl_4 + 4H_2O \longrightarrow Si(OH)_4 + HCl$