

Daily Tutorial Sheet-1	Level-1
-------------------------------	----------------

- 1.(B)** Two types of O.S. exist in the structure of $S_4O_6^{2-}$ are +5 and 0
- 2.(D)** Haematite = $Fe_2^{+3}O_3$ Magnetite = $(Fe^{+2}O, Fe^{+3}_2O_3)$
- 3.(D)** $H_2S^{-2} \longrightarrow S^0$ Oxidation, so, H_2S is R.A.; $H_2O_2^{-1} \longrightarrow H_2O^{-2}$ Reduction, so, H_2O is O.A.
- 4.(B)** Fe_3O_4 : $3x + 4(-2) = 0 \Rightarrow x = \frac{+8}{3}$
- 5.(B)** Methanal : $H\overset{*}{C}HO \longrightarrow$ O.S. of C = 0 (O.S. of H and O is + 1 and -2 respectively).
 Methanoic acid : $H\overset{*}{C}OOH \longrightarrow$ O.S. of C = +2
- 6.(C)** $H_2S + X_2 (Cl, Br, I = X) \rightarrow 2HX + S$. Observe that halogens are reduced
- 7.(B)** $N^{-3}H_3, H^{+5}N^{+5}O_3, N_2^0, Mg_3N_2^{-3}$
- 8.(A)** $P_4^0 \xrightarrow{\quad} H_2PO_2^{-1} + PH_3^{-3}$
- 9.(D)** $K^{+1}O_3^{-1/3} \quad Na_2^{+1}O_2^{-1}$
- 10.(C)** $Na_2^{+1}S_4^{+2.5}O_6^{-2}$
- 11.(B)** Note that the net charge on the compound must be zero.
- 12.(A)** $H_2S^{+6}O_4 \longrightarrow SO_2^{+4} [OA]$
- 13.(C)** $H^{+1}I^{+7}O_4 \quad H_3^{+1}I^{+7}O_5 \quad H_5^{+1}I^{+7}O_6$
- 14.(C)** $I_3^{-1} \Rightarrow 0.3 = \frac{-1}{3}$
- 15.(A)** $N_3^{-1/3}H^{+1}$