



Brain International School

Vikas Puri, New Delhi

ASSIGNMENT NO 4

SUBJECT: CHEMISTRY

CLASS-XI

Oct,25

Ch-7 Redox.

1. What is oxidation states of oxygen in peroxides and peroxides?
2. Why fluorine always show negative one oxidation state?
3. What is oxidation state of Cr in CrO_5 ?
4. What are disproportion reactions give example?
5. Find oxidation states of bold elements in given compounds:
(i) $\text{H}_2\text{S}_4\text{O}_6$ (ii) CaOCl_2 (iii) C_3O_2 (iv) $\text{CH}_3\text{CH}_2\text{CH}_2\text{-O-H}$
6. Write the balanced redox reaction.
(I) $\text{MnO}_4^-(\text{aq}) + \text{Fe}^{2+}(\text{aq}) \rightarrow \text{Mn}^{2+}(\text{aq}) + \text{Fe}^{3+}(\text{aq})$ [acidic medium]
(II) $\text{Cr}_2\text{O}_7^{2-} + \text{Fe}^{2+} \rightarrow \text{Cr}^{3+} + \text{Fe}^{3+}$ [acidic medium]
7. Determine the oxidation no. of bold atoms in the following oxidants: KMnO_4 , $\text{K}_2\text{Cr}_2\text{O}_7$ and KClO_4 .
8. Identify the oxidizing and reducing agents in the following equations:
(i) $\text{MnO}_4^-(\text{aq}) + 5\text{Fe}^{2+}(\text{aq}) + 8\text{H}^+(\text{aq}) \rightarrow \text{Mn}^{2+}(\text{aq}) + 5\text{Fe}^{3+}(\text{aq}) + 4\text{H}_2\text{O}$
(ii) $\text{Cr}_2\text{O}_7^{2-} + 6\text{Fe}^{2+} + 14\text{H}^+ \rightarrow 2\text{Cr}^{3+} + 6\text{Fe}^{3+} + 7\text{H}_2\text{O}$
9. Identify the strongest and weakest reducing agent from the following metals:
Zn, Cu, Na, Ag, Sn
10. Calculate O. S. of sulphur in the following oxoacids of 'S':
 H_2SO_4 , H_2SO_3 , $\text{H}_2\text{S}_2\text{O}_8$ and $\text{H}_2\text{S}_2\text{O}_7$
11. Balance the equation $\text{MnO}_4^- + \text{I}^- \rightarrow \text{Mn}^{2+} + \text{I}_2 + \text{H}_2\text{O}$ by ion electron method in acidic medium.