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## ASSIGNMENT CLASS - XI L-8 REDOX REACTION

1 Determine the oxidation number of element underlined the following:

$$\underline{Si}H_4$$
,  $\underline{B}F_3$ ,  $\underline{Br}O_4$ ,  $\underline{C}_2H_6$ ,  $\underline{Br}_3O_8$ ,  $\underline{O}F_2$ 

- 2 Identify the oxidants and reductants in the given reaction:
- (a)  $CH_4 + 4CL_2 \rightarrow CCl_4 + 4 HCL$
- (b)  $I_2 2S_2O_3^{2-} \rightarrow 2I^- + S_4O_6^{2-}$
- (c)  $N_2H_4 + 2 H_2O_2 \rightarrow N_2 + 4H_2O$
- 3 Balance the following equations in basic medium by ion –electron method :
- (1)  $P_4 + OH^- \rightarrow PH_3 + H_2PO_2^-$
- (2)  $MnO_4^- + Fe^{2+} \rightarrow MnO_2 + Fe^{3+}$
- (3)  $CL_2O_7 + H_2O_2 \rightarrow CLO_2 + O_2$
- 4 Balance the following equations in acidic medium by both method:
- (1)  $MnO_4^- + C_2H_2O_4 \rightarrow Mn^{2+} + CO_2$
- (2)  $H_2S + CL_2 \rightarrow S + CL^2$
- (3)  $MnO_{4^{-}} + C_2H_5OH \rightarrow Mn^{2^{+}} + CH_3COOH$
- (4)  $Cr_2O_7^{2-} + C_2O_4^{2-} \rightarrow Cr^{3+} + CO_2$
- 5 What is the most essential conditions that must be satisfied in redox reaction?
- 6 Arrange the molecules NH<sub>3</sub>, NO<sub>2</sub>, HN<sub>3</sub>, NO<sub>2</sub>, and N<sub>2</sub>H<sub>4</sub> in deacreasing order of the oxidation state of nitrogen.
- 7 Explain the types of reactions with examples.
- 8 Define disproportionation reaction with two examples.
- 9 How would you know wheather a redox reaction is taking place in an acidic or alkaline medium?
- 10 What is the oxidation state of oxygen in water, hydrogenperoxide, oxygen gas and in oxyfluorides.

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