# INDIAN SCHOOL NIZWA - WORKSHEET

CHEMISTRY

CH: 8 REDO REACTIONS

Name: _____ Date:_____ Class: XI Sec: ___

Calculate the oxidation state of

1. i) S in $H_2S$ ii) C in $CO_2$ iii) N in $(NH_4)_2SO_4$ iv) Pb in $Pb_3O_4$ v) P in $Na_3PO_4$
2. What is meant by Disproportionation reactions ? Explain with an example.
3. Identify the oxidant and reductant in the following reactions

   i) $10H^+_{(aq)} + 4Zn(s) + NO_3^- \rightarrow 4Zn^{2+}_{(aq)} + NH_4^+{}_{(aq)} + 3H_2O_{(l)}$

   ii) $I_2 + H_2S_{(g)} \rightarrow 2HI_{(g)} + S_{(s)}$

   iii) $2MnO_4^- + 10Cl^- + 16H^+ \rightarrow 2Mn^{+2} + 5Cl_2 + 8H_2O$
4. Balance the following redox reaction

   a) $N_2H_4 + ClO_3^- + \rightarrow NO + Cl^-$

   b) $Cl_2 + OH^- \rightarrow Cl^- + ClO_3^-$

   c) $Cu + NO_3^- + H^+ \rightarrow Cu^{2+} + NO + H_2O$

   d) $Cl_2O_7 + H_2O_2 \rightarrow ClO_2^- + O_2$ (basic medium)

   e) $MnO_4^- + I^- \rightarrow MnO_2 + I_2$ (basic medium)

   f) $H_2O_2 + Fe^{2+} \rightarrow Fe^{3+} + H_2O$ (acidic medium)

   g) $H_2S + 2Fe^{3+} \rightarrow 2Fe^{2+} + S + 2H^+$
5. Define electrochemical cell. Explain with an example.
6. What is meant by redox couple?
7. What are the functions of salt bridge?