REDOX (B)

1 Identify the oxidising agent and reducing agent in this reaction: $F_2 + 2KBr \rightarrow 2KF + Br_2$

oxidising agent = ... reducing agent = ...

2 State the oxidation state of the sulfur in the following species.

species	H_2S	S_8	SO_3^{2-}	H_2SO_4	SO_2	SF_6	$NaHSO_3$
oxidation state of S							

3 Write a half equation for each of the following conversions.

a $Br^- \rightarrow Br_2$

b $VO_2^+ \rightarrow VO^{2+}$

c $Cr_2O_7^{2-} \rightarrow Cr^{3+}$

4 Combine these pairs of half equations to make a redox equation.

a $Zn \rightarrow Zn^{2+} + 2e^-$ and $Fe^{3+} + e^- \rightarrow Fe^{2+}$

b $Fe^{2+} \rightarrow Fe^{3+} + e^-$ and $MnO_4^- + 8H^+ + 5e^- \rightarrow Mn^{2+} + 4H_2O$