

Amongst the following, identify the species with an atom in + 6 oxidation state (2000, 1M)

- (a)  $\text{MnO}_4^-$       (b)  $\text{Cr}(\text{CN})_6^{3-}$       (c)  $\text{NiF}_6^{2-}$       (d)  $\text{CrO}_2\text{Cl}_2$

$\text{K}_2\text{MnO}_4$  (purple green) is formed which is the first step of preparation of  $\text{KMnO}_4$ .