Date Planned : __ / __ / __	Daily Tutorial Sheet-13	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	Level-3	Exact Duration :_____

147. 0.5 g mixture of $K_2Cr_2O_7$ and $KMnO_4$ was treated with excess KI in acidic medium. Iodine liberated required 100 cm^3 of 0.15 N sodium thiosulphate solution for titration. Find the percentage composition of the mixture.

148. 0.05 g of a commercial sample of potassium chlorate containing some KCl, on decomposition liberates just sufficient oxygen for complete oxidation of 20 mL of carbon monoxide. The volume of carbon monoxide was measured at 27°C and 750 mm of mercury pressure. Calculate the percentage purity of the sample of $KClO_3$.

149. 1.6 g of pryolusite ore was treated with 50 cc of 1N oxalic acid and some sulphuric acid. The volume of the oxalic acid left undecomposed was made up to 250 cc in a flask. 25 cc of this solution when treated with 0.1 N $KMnO_4$ solution required 32 cc of the $KMnO_4$ solution. Find out the percentage of pure MnO_2 and that of available oxygen in the given example.

150. A solution of H_2O_2, labelled as '20 volume', was left open. Due to this some H_2O_2 decomposed and the volume strength of the solution decreased. To determine the new volume strength of the H_2O_2 solution, 10 mL of the solution was taken and it was diluted to 100 mL. 10 mL of this diluted solution was titrated against 25 mL of 0.0245 M $KMnO_4$ solution under acidic condition. Calculate the volume strength of the H_2O_2 solution.

151. Which of the following can act as oxidizing agent?

$F_2, O_3, KClO_4, Ba_2XeO_6, Bi_2O_5, OsO_4, Mn_2O_7, HNO_3, HOF$

152. To 50L of 0.2N NaOH, 5L of 1N HCl and 15 L of 0.1N $FeCl_3$ solutions are added. What weight of Fe_2O_3 can be obtained from the precipitate? Also report the normality of NaOH left in resultant solution :