

Date Planned : / /	Daily Tutorial Sheet-11	Expected Duration : 90 Min
Actual Date of Attempt : / /	Numerical Value Type	Exact Duration :

- 1. 80 mL of $\frac{M}{24}$ K₂Cr₂O₇ oxidises 22.4 mL H₂O₂ solution. Find volume strength of H₂O₂ solution.
- **2.** Five moles of ferric oxalate are oxidise by how much mole of $KMnO_4$ in acidic medium.
- 3. Intramolecular redox

$$(NH_4)_2Cr_2O_7 \longrightarrow N_2 + Cr_2O_3 + 4H_2O$$

Shows a gain and loss of how many electrons

- 4. How many grams of I_2 are present in a solution which requires 40 mL, of 0.11 N $Na_2S_2O_3$ to react with it
- **5.** What volume of $2 \text{ N K}_2\text{Cr}_2\text{O}_7$ solution is required to oxidise 0.81 g of H_2S in acidic medium.

- **6.** How many litre of Cl_2 at STP will be liberated by oxidation of NaCl with 10 g of acidified $KMnO_4$.
- 7. The number of mole of potassium salt i.e. $KHC_2O_4H_2C_2O_4 \cdot 2H_2O$ oxidized by 4 mole of potassium permanganate ion is:
- 8. 0.2 g of a sample of H_2O_2 required 10 mL of 1 N KMnO₄ in a titration in the presence of H_2SO_4 . Purity of H_2O_2 is:
- 9. 5g of a sample of bleaching powder is treated with excess acetic acid and KI solution. The liberated I_2 required 50 mL of $\frac{N}{10}$ hypo. The % of available chlorine in the sample.
- **10.** What is the oxidation no. N in NOCl?
- 11. The ratio of oxygen atom having -2 and -1 oxidation no. in $S_2O_8^{2-}$ is :
- 8 g of Sulphur is burnt to form SO_2 which is oxidized by Cl_2 water. The solution is treated with $BaCl_2$ solution. The number of moles of $BaSO_4$ precipitated is:
- 13. 25 g of a sample of $FeSO_4$ was dissolved in water containing dil. H_2SO_4 and the volume made upto 1 litre. 25 mL of this solution required 20mL of $\frac{N}{10}KMnO_4$ for complete oxidation. Calculate % of $FeSO_4 \cdot 7H_2O$ in given sample.
- 14. Calculate the mass of MnO_2 which will be completely oxidises 30 mL of $0.1\,M\,H_2C_2O_4$ in acidic medium?
- 15. The action of H_2SO_4 on KI gives I_2 and H_2S . Calculate the volume of $0.2 \text{ M } H_2SO_4$ to produce $3.4 \text{ g } H_2S$.