

رقم الطالب:

إسم الطالب:

Sample No.	A	B	C
------------	---	---	---

Determine the concentration of NaOH (g% w/v) in sample (A):

Into a clean conical flask, transfer 10.0 ml of sample (A), add 2-3 drops of methyl orange indicator. Titrate with 0.1 N HCl until the color is changed from **yellow** → **red**. Calculate NaOH conc. in the sample. (Each 1 ml of 0.1N HCl = 0.004 g NaOH)

Experiment No.	Start	End	Volume taken	Mean
1.				
2.				
3.				

% of NaOH = -----

Determine the concentration of CaCl₂ (g% w/v) in sample (B):

Into a clean conical flask, transfer 10.0 ml of sample (B), and 20 ml dist.H₂O. Add 5 ml ammonia buffer, and few specks of Erio-BT indicator. Titrate with M/20 EDTA until the color is changed from **wine red** → **full blue**. Calculate CaCl₂ conc. in the sample. (Each 1 ml of M/20 EDTA = 0.002 g CaCl₂)

Experiment No.	Start	End	Volume taken	Mean
1.				
2.				
3.				

% of CaCl₂ = -----

Determine the concentration of oxalic acid (g% w/v) in sample (C):

Into a clean conical flask, transfer 10.0 ml of sample (C) and heat over a direct flame to 70 °C (the first appearance of air bubbles in solution). Titrate with 0.1 N KMnO₄ until the color is changed from **colorless** → **faint pink**. Calculate oxalic acid conc. in the sample. (Each 1 ml of 0.1 N KMnO₄ = 0.0045 g oxalic acid)

Experiment No.	Start	End	Volume taken	Mean
1.				
2.				
3.				

% of Oxalic acid = -----