

**2020**  
**CHEMISTRY-GENERAL**  
**Paper: CEMG-GE-1 Practical**  
**Full Marks: 30**

1. Estimate sodium carbonate and sodium hydrogen carbonate present in a mixture.

Supplied experimental data:

(i) Standardization of NaOH solution-

Volume of oxalic acid = 25 mL, Volume of NaOH = 22.1 mL

Strength of oxalic acid = (N/20)

(ii) Standardization of HCl solution-

Volume of HCl = 25 mL, Volume of NaOH = 19.5 mL

(iii) Titration using phenolphthalein-

Volume of supplied mixture = 25 mL, Volume of HCl = 9.5 mL

(iv) Titration using methyl orange-

Volume of supplied mixture = 25 mL, Volume of HCl = 23.5 mL