

**JADAVPUR UNIVERSITY**  
**1<sup>st</sup> B. Sc. 1<sup>st</sup> SEM GE Practical 2018 (NEW)**  
**Paper: GE/Chem/PR/01**

Full Marks – 50

Q. 1. Estimate the amount of carbonate and hydroxide present together in a mixture	30
Q. 2. Viva-Voce	10
Q. 3. Laboratory Note book	10

**Hints: Q.1.**

(a) Transfer quantitatively the given sample into a 250 ml volumetric flask and make up the volume to prepare the stock solution.

(b) Titration of  $\text{Na}_2\text{CO}_3$  and  $\text{NaOH}$  mixture with standard (supplied)  $\text{HCl}$  solution

Take an aliquot of 25 ml of the stock solution in a 250 ml conical flask, dilute with ~25 ml distilled water, add 1-2 drops of phenolphthalein indicator. The solution assumes a red colour. Titrate with standard (N/20)  $\text{HCl}$  solution from burette while swirling the flask gently, until the red colour is just discharged. Record the titre value.

Now, add 1-2 drops of methyl orange indicator. The solution assumes a yellow colour. Continue titration with standard (N/20)  $\text{HCl}$  solution as before until the solution assumes a red colour. Record the titre value.