Data and Results Entry Form-3

**EXP.3: STANDARDIZATION OF HYDROCHLORIC ACID (HCl) SOLUTION WITH STANDARD SODIUM CARBONATE (Na2CO3) SOLUTION.**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, Section: \_\_\_\_\_\_\_\_\_**

**EXPERIMENTAL DATA:**

*Strength of sodium carbonate solution* =  (N)

**Table**: *Standardization of supplied HCl solution against standard Na2CO3­ solution by acid-base titration.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***No. of reading*** | ***Vol. of Na2CO3 ( in mL)*** | ***Vol. of HCl (in mL)*** | | | ***Difference between (a) and (c)***  ***(in mL)*** | ***Mean***  ***(in mL)*** |
| ***Initial (a)*** | ***1st End-point (b)*** | ***2nd End-point (c)*** |
| 1 | 10 | 0.00 | 5.60 | 10.00 |  |  |
| 2 | 10 | 10.00 | 14.60 | 20.30 |  |
| 3 | 10 | 20.30 | 25.30 | 30.70 |  |
| 4\* | 10 | 30.70 | --- | 40.80 |  |

*\*4th reading with methyl orange only*

**CALCULATIONS:**

(A) *The strength of supplied dil. HCl solution*:

VNa2CO3 x N Na2CO3 = Vdil. HCl x Ndil. HCl to be determined

(B) *The strength of conc. HCl solution*:

Vdil. HCl x Ndil. HCl determined = Vconc. HCl taken x Nconc. HCl to be determined

**(1000 mL) (10 mL)**

**RESULTS:**

1. *The strength of supplied dil. HCl solution is ……………..(N)*
2. (A) *The strength of conc. HCl solution is ……………..(N)*