**HOLA SECONDARY SCHOOL**

**MID TERM EXAMINATION**

**BIOLOGY PRACTICAL**

**YEAR 2014**

**TERM ONE**

**FORM 3**

**PAPER 3**

**TIME:**

**NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_CLASS\_\_\_\_\_\_\_\_\_ADM/NO.\_\_\_\_\_\_\_\_\_\_\_**

**TITRATION**

**PRATICAL 1**

You are provided with:

* Solution B. HCL.
* Solution C containing 18gm per litre Sodium Hydroxide.

You are required to determine the concentration of B in moles per litre.

**PROCEDURE 1**

* Pipette 25.0cm3 of solution C in a conical flask.
* Add 2 – 3 drops of methyl orange indicator.
* Titrate with dilute hydrochloric acid solution B and record your results in table I.

Volume of pipette used \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cm3.

|  |  |  |  |
| --- | --- | --- | --- |
|  | 1st  | 2nd  | 3rd  |
| Final burette reading (cm3) |  |  |  |
| Initial burette reading (cm3) |  |  |  |
| Volume of B used (cm3) |  |  |  |

 (4mks)

1. Calculate the average volume of solution B used. (Show your working). (2mks)
2. Calculate the concentration of sodium hydroxide in moles per litre. (2mks)
3. How many moles of sodium hydroxide are contained in 25.0cm of solution C. (3mks)
4. **Calculate:**
5. The number of moles of hydrochloric that reacted with sodium hydroxide in (b) above. (3mks)
6. The concentration of hydrochloric solution in moles per litre. (3mks)
7. The concentration of HCL in grams per litre. (2mks)