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WORKSHEET 27

School: Ba Sangam College   **Year:** 11
Subject: Chemistry   **Name:**

Strand	1 – General Chemistry
Sub strand	1.2- Fundamental Tools of Chemistry
Content Learning Outcome	-List and describe the names, correct uses and care in handling some basic apparatus. -Determine and write the correct units for measurements from the apparatus and use them in calculations with correct significant figures.

FY11CE- 2015

1. The image below shows the burette readings of a solution during a titration.

Initial Reading = 9.63 mL   Final Reading = 24.16 mL
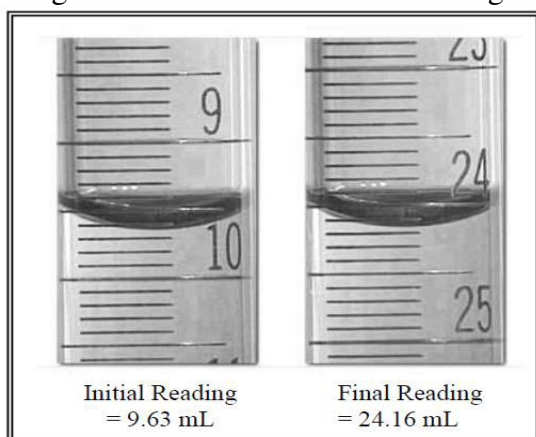
(i) Explain why it is important to have the meniscus at eye level when reading a burette.   **(1 mark)**
_____
_____

(ii) A burette is usually graduated with the smallest graduation as 0.1 mL. How is the second decimal place obtained in a burette reading?   **(1 mark)**
_____
_____

(iii) Calculate the titre used in the titration in litres.   **(1 mark)**
_____
_____

2. Four stoppered flasks are shown below. Each of these flasks contains a fixed amount of an ideal gas at the same temperature.

I   II   III   IV
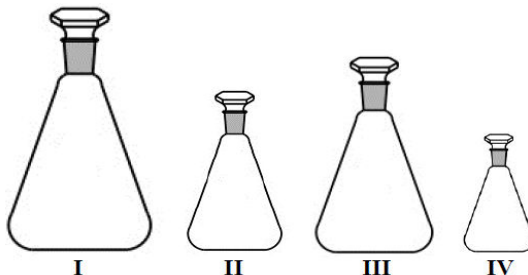
(i) Using the numbers, arrange the flask having the lowest to highest pressure, in that order.   **(1 mark)**
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(ii) Identify the gas law illustrated in the above example. **(½ mark)**

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FY11CE- 2016

1. The correct number of significant figures in 2.300 is

A. 1

B. 2

C. 3

D. 4

2. The knowledge of the basic apparatus used in Chemistry practicals is very important.
   Complete the following table.

Name	Diagram	Use
Crucible		(i)
(ii)		Transferring and measuring small volumes.
Conical flask	(iii)	Collecting and mixing liquids.

3. Laboratory procedures are always converted to past participle and then written in reports. Convert the following to past participle.

   Add 20 mL of water to a test tube and place a small piece of magnesium ribbon in it. **(1 mark)**

_____

_____

4. Perform the following calculation to the correct number of significant figures:

   0.5 m x 20.5 m x 7.5 m

   (2 marks)

_____

_____

During a practical class on density, a group of Year 11 students obtained the following data for a rectangular piece of wood.

Mass	32.0 g
Length	7.0 cm
Width	3.0 cm
Height	2.0 cm

Calculate the density of the rectangular piece of wood using the data from the table. **(2 marks)**