

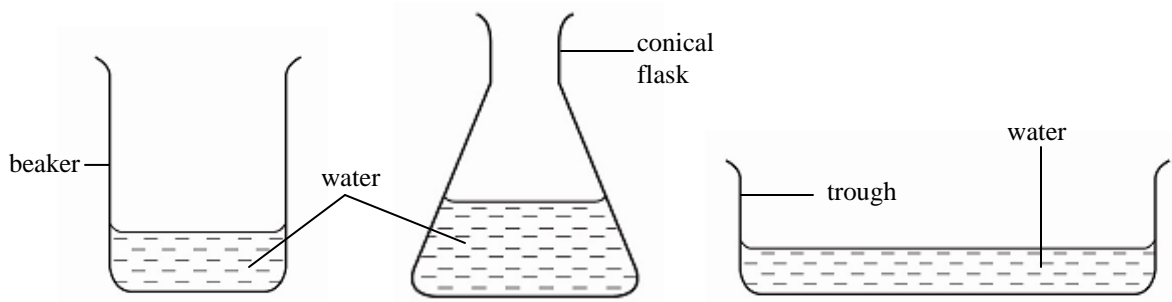


CHAPTER 1: SCIENTIFIC INVESTIGATION



PAPER 2: Section A (Structured Questions)

- 1 The diagrams below show the apparatus used to compare the rate of evaporation of water from three containers.



- (a) Why does water evaporate?

_____ [1 mark]

- (b) Suggest a hypothesis for the experiment.

_____ [1 mark]

- (c) State **two** variables that should be kept constant.


1. _____
 2. _____
- [2 marks]

- (d) What factor is being manipulated?

_____ [1 mark]

- (e) Predict whether the water in the beaker, conical flask or trough will evaporate the fastest. Give a reason for your answer.

_____ [2 marks]

 **PAPER 2: Section B (Structured Questions)**

- 2 Ahmad carried out an investigation using a transformer. The results are given in the table below.

Input voltage (V_1)	0	1	2	3	4
Output voltage (V_2)	0	2	4	6	8

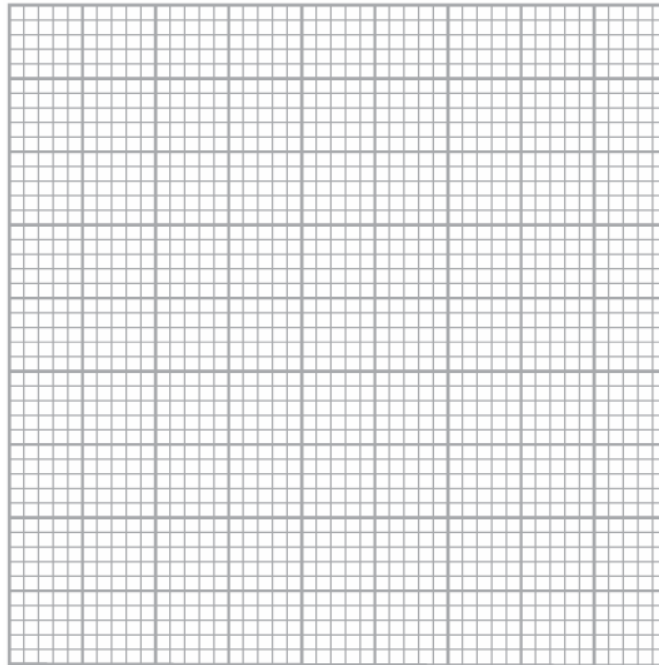
- (a) What is the constant variable?

_____ [1 mark]

- (b) What variable is manipulated?

_____ [1 mark]

- (c) Draw a graph of the input voltage against the output voltage.



[2 marks]

- (d) What conclusion can you draw from the result?

_____ [1 mark]

3 (a) Suggest a definition for science.

_____ [1 mark]

(b) State **three** skills which a scientist must develop.

1. _____
 2. _____
 3. _____
- [3 marks]

(c) Give a reason in support of using the scientific method.

_____ [1 mark]

(d) An experiment is usually planned to test a hypothesis. What is a hypothesis?

_____ [1 mark]

(e) State **three** things that must be taken into consideration during the planning of an experiment.

1. _____
 2. _____
 3. _____
- [3 marks]