Candidate Name	Centre Number	Candidate Number

ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Advanced Level

HORTICULTURE 6024/3

PAPER 3 Practical Test

SPECIMEN PAPER 2 hours 30 minutes

Additional materials:
Answer paper,
Graph paper,
As listed in Instructions to Supervisors,
Scientific Calculator.

TIME 2 hours 30 minutes + 10 minutes preparation time.

INSTRUCTIONS TO CANDIDATES

Write your name, Centre number and candidate number in the spaces at the top of this page and on every page of your answer paper. This paper consists of **three** questions. Answer **all** questions. Marks are given in brackets [ ] at the end of each question or part question.

You are advised to spend the first **10** minutes carefully reading through the whole paper before answering any questions. Spend at least **40** minutes on each question. All writing must be in blue or black ink except for diagrams which must be drawn in pencil. You are reminded of the need for good English and clear presentation in your answers.

FOR EXAMINER'S USE	
1	
2	
3	
TOTAL	

This specimen paper consists of 6 printed pages and 2 blank pages.

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1 You are required to investigate water movement in sample **HS1** at different concentrations of sucrose solutions and distilled water.

The solutions provided are distilled water, **0,5M** sucrose solution and **1M** sucrose solution.

Proceed as follows:

1. Pour **50ml** of each solution into different beakers and label the beakers,
2. Slice **3** equal potato cubes and weigh them separately,
3. Record each weight in the table provided,
4. Place one cube into each of the solutions and leave them for **30** minutes.

NB: You may proceed to the next question.

5. After **30** minutes, remove the potatoes from the cylinders and weigh them.
6. Record the final mass of the potato cubes in the table.

1 (a) (i)

Solution	**Initial mass**	**Final Mass**	**Change in Mass**	**% Change in mass**
Distilled water				
0,5m				
1m				

[12]

(ii) Comment on the results in **(i)**.

_____

_____

_____ [3]

(iii) What is the reason for expressing the change in weight as a percentage?

_____ [1]

(iv) How can a farmer use the knowledge from this experiment to ensure good crop growth?

_____

_____

_____ [2]

(b) Discuss the effects of drought on plants.

_____

_____

_____ [2]

2 You are provided with samples of horticultural plants. Identify the samples of horticultural plants by their common names:

(a) **(i)** **HS2**

_____ [1]

HS3

_____ [1]

HS4

_____ [1]

HS5

_____ [1]

HS6

_____ [1]

HS7

_____ [1]

(ii) Classify the samples of the horticultural plants into named groups.

_____

_____

_____

_____

_____

_____

_____

_____

_____ [6]

(iii) Describe the design features of containers of pot plants in relation to their functional properties.

_____

_____

_____

_____ [3]

(b) **(i)** Describe how ornamental plants are groomed.

_____

_____

_____ [2]

(ii) Explain the importance of ornamental plants.

_____

_____

_____

_____ [3]

3 You have been provided with **HS8** to study the sexual reproduction parts.

(a) Examine sample **HS8** using a magnifying lens and identify any **five** parts.

_____

_____

_____

_____

_____ [5]

(b) Describe the functions of the identified parts in **HS8**.

_____

_____

_____

_____

_____ [5]

(c) **(i)** Describe the features of **HS8** that favour self pollination.

_____

_____

_____

_____ [2]

(ii) Describe features of **HS8** which makes it suitable for insect pollination.

_____

_____

_____

_____

_____

_____ [5]

(d) Outline mechanisms that promote cross pollination in **HS8**.

_____

_____

_____

_____

_____ [3]

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