



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF HEALTH, NATURAL RESOURCES AND APPLIED SCIENCES

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES SCIENCES

DEPARTMENT OF AGRICULTURAL SCIENCES AND AGRIBUSINESS

QUALIFICATION: BACHELOR OF SCIENCE IN HORTICULTURE	
QUALIFICATION CODE: 07BHOR	LEVEL: 7
COURSE CODE: FPP620S	COURSE NAME: FRUIT PHYSIOLOGY AND PRODUCTION
DATE: JANUARY 2025	PAPER: 2
DURATION: 3 HOURS	MARKS: 100

SECOND OPPORTUNITY/SUPPLEMENTARY EXAMINATION QUESTION PAPER	
EXAMINER(S)	DR EDGAR MOWA
MODERATOR:	DR GRACE KANGUEEH

INSTRUCTIONS
<ol style="list-style-type: none">1. Answer all the questions.2. Write neatly and clearly.3. Mark all answers clearly with their respective question numbers.4. All written work MUST be done in blue or black ink.5. No books, notes and other additional aids are allowed.

PERMISSIBLE MATERIALS

1. Calculator
2. Examination paper
3. Examination script

**THIS QUESTION PAPER CONSISTS OF 2 PAGES
(Excluding This Front Page)**

SECTION A: SHORT/LONG ANSWER QUESTIONS

Question 1

[4 MARKS]

Define the following terminologies:

- 1.1 Anthocyanins
 - 1.2 Layering
 - 1.3 Budding
 - 1.4 Cation Exchange Capacity (CEC)
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Question 2

[4 MARKS]

2.1 Give four (4) objectives of pruning.

Question 3

[5 MARKS]

3.1 What are the advantages of propagation by tissue culture?

Question 4

[6 MARKS]

4.1 Delayed foliation is an abnormal physiological morphological condition if trees did not receive enough cold in rest. Give any four (6) symptoms of delayed foliation.

Question 5

[6 MARKS]

5.1 Distinguish between cleft budding and approach budding:

Question 6

[8 MARKS]

6.1 What are the conditions for grafting to be successful?

Question 7

[9 MARKS]

7.1 By means of drawings, show the three layers of the pericarp in: Apple, Orange, and drupe.

Question 8

[10 MARKS]

8.1 Differentiate between deciduous and evergreen fruit trees.

Question 9

[13 MARKS]

9.1 Discuss the factors determining the characteristics of a root system.

Question 10

[15 MARKS]

10.1 Describe viticultural activities at each of the 9 phenological stages of grapes.

Question 11

[20 MARKS]

11.1 Grape production is an available agri-business in Namibia. In full and with your own understanding discuss the production of grapes from site selection to harvesting.

END OF QUESTION PAPER