



1ST SEM. 2005/2006

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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

**PROGRAMME: BACHELOR OF SCIENCE IN AGRICULTURE
YEAR IV (HORTICULTURE OPTION)**

COURSE CODE: HORT 401

TITLE OF PAPER: PLANT PROPAGATION

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS

**DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN GRANTED BY
THE CHIEF INVIGILATOR**

INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS**QUESTION 1**

- (a) Describe the importance of greenhouses in plant propagation [5]
 - (b) Describe the use of cold beds in plant propagation [5]
 - (c) Describe the heat treatment of growing media [5]
 - (d) Discuss the chemical treatment of growing media [10]
- [25]**

QUESTION 2

- (a) Discuss apomixis in seed propagation [5]
 - (b) Discuss the various types of seed dormancy [10]
 - (c) Discuss seed scarification [10]
- [25]**

QUESTION 3

- (a) Describe five (5) major uses of the vegetative propagation method [5]
 - (b) Describe chimeras in horticultural plants [5]
 - (c) Discuss adventitious root formation in vegetative cuttings [15]
- [25]**

QUESTION 4

- (a) Discuss graft incompatibility [10]
 - (b) Describe the T-budding technique [10]
 - (c) Describe the splice grafting technique [5]
- [25]**

QUESTION 5

- (a) Describe the compound or serpentine layering [5]
 - (b) Discuss plant propagation by air layering method [10]
 - (c) Describe the major stages of in vitro plant regeneration [5]
 - (d) Discuss somatic embryogenesis in vitro [5]
- [25]**