

2nd SEM 2010/2011



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**UNIVERSITY OF SWAZILAND
FINAL EXAMINATION PAPER**

PROGRAMME: B.SC AG.ED YEAR IV, B.SC LWM YEAR IV & B.SC AN.SCI
YEAR IV

COURSE CODE: APH 401

TITLE OF PAPER: APICULTURE

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER FOUR (4) QUESTIONS

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CHIEF INVIGILATOR**

QUESTION 1

Biology and behavior of honeybees.

- A) Describe the stinging process. (10.0 points)
- B) Describe the “undertakers” activities in the hive. (10.0 points)
- C) Bees have memories. Give some evidence on bee’s memory. (5.0 points)

QUESTION 2

Establishment of apiary.

- A) Describe the hive density recommended for an apiary in Eucalyptus plantation. (10.0 points)
- B) Explain in detail how the hives should be spaced and arranged in an apiary. (10.0 points)
- C) Explain the statement “...honeybees can be kept anywhere...”. (5.0 points)

QUESTION 3

Beekeeping equipments.

- A) Describe **queen excluder** devise. (15.0 points)
- B) For honeybees handling it is necessary to use protective clothing. Write short notes about protective clothing.. (4X2+2=10.0 points)

QUESTION 4

Beekeeping management and feeding.

- A) List factors that trigger swarming. (2X3=6.0 points)
- B) Briefly explain swarming process of African honeybees. (10.0 points)
- C) Explain manipulative feeding. (9.0 points)

QUESTION 5

Diseases and pest of honeybees. Write short notes on the following diseases:

- A) Nosema (Diagnosis and treatment). (12.5 points)
- B) Cape bee (Symptoms and treatment) (12.5 points)