



UNIVERSITY OF SWAZILAND
2nd SEM. 2014/2015
SUPPLEMENTARY EXAMINATION PAPER

PROGRAMME: B.Sc. AGRICULTURAL EDUCATION YEAR 4
B.Sc. ANIMAL SCIENCE YEAR 4
B.Sc. AGRICULTURAL & BIOSYSTEMS ENGINEERING
YEAR 4

COURSE CODE: AS 401

TITLE OF PAPER: APICULTURE

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**

QUESTION 1

- (a) Differentiate the three castes of bees. (15 marks)
- (b) List and describe 3 activities carried out by bees inside the hive. (10 marks)

QUESTION 2

- (a) Identify bee behavior that are of economic importance to the beekeeper and explain how each affects honey production. (15 marks)
- (b) Discuss an intervention you would employ to remedy this situation. (10 marks)

QUESTION 3

- a) Write short notes on the contribution of beekeeping in medicine. (10 marks)
- b) Outline the values of honey. (15 marks)

QUESTION 4

Discuss five (5) beehive products apart from honey. (25 marks)

QUESTION 5

a) Discuss, in detail, pollen substitutes and supplements, and how they can be formulated. (15 marks)

b) Differentiate the following types of feeding in bees:

- i) Stimulative feeding
- ii) Supplementary feeding
- iii) Manipulative feeding (10 marks)