



2ND SEMESTER 2015/2016

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UNIVERSITY OF SWAZILAND

SUPPLIMENTARY EXAMINATION PAPER

PROGRAMMES:

- B.SC. IN AGRICULTURAL AND BIOSYSTEMS ENGINEERING YEAR 1**
- B.SC. IN AGRICULTURAL ECONOMICS AND AGRIBUSINESS MANAGEMENT YEAR 1**
- B.SC. IN AGRICULTURAL EDUCATION YEAR 1**
- B.SC. IN AGRONOMY YEAR 1**
- B.SC. IN ANIMAL SCIENCE YEAR 1**
- B.SC. IN ANIMAL SCIENCE (DAIRY) YEAR 1**
- B.SC. IN CONSUMER SCIENCE YEAR 1**
- B.SC. IN CONSUMER SCIENCE EDUCATION YEAR 1**
- B.SC. IN FOOD SCIENCE, NUTRITION AND TECHNOLOGY YEAR 1**
- B.SC. IN HORTICULTURE YEAR 1**
- B.SC. IN TEXTILES, APPAREL DESIGN AND MANAGEMENT YEAR 1**

COURSE CODE: CPR 104

TITLE OF PAPER: BOTANY

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER QUESTION ONE (1) AND ANY OTHER THREE (3) QUESTIONS OF YOUR CHOICE

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QUESTION 1 (COMPULSORY QUESTION)

Describe the following terms in relation to the morphology of angiosperms;

- a) Internodes (2 marks)
- b) Axillary bud (2 marks)
- c) Simple leaf (2 marks)
- d) Compound leaf (2 marks)
- e) Phyllotaxy (3 marks)
- f) Stolons (2 marks)
- g) Bulbs (2 marks)
- h) Corolla (2 marks)
- i) Calyx (2 marks)
- j) Carpel (2 marks)
- k) Locule (2 marks)
- l) Stamen (2 marks)

[25 MARKS]

QUESTION 2

- a) List **any six (6)** cell organelles in plant cells and state their main functions in plant growth and development. (13 marks)
- b) Discuss the structure of the cell wall in plants and explain how communication between cells may take place. Support your answer with a well labelled diagram. (12 marks)

[25 MARKS]

QUESTION 3

Compare and contrast primary and secondary growth in angiosperms. In each growth pattern, indicate all the tissues and cells involved. **[25 MARKS]**

QUESTION 4

In a tabular format, describe the main morphological and anatomical differences between dorsiventral and isobilateral leaves. **[25 MARKS]**

QUESTION 5

Write short notes on the following terms with relevant examples;

- a) The binomial nomenclature (5 marks)
- b) Phylum Magnoliophyta (6 marks)
- c) Advantages of using botanical names (14 marks)

[25 MARKS]