



**2<sup>ND</sup> SEMESTER 2010/2011**

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**UNIVERSITY OF SWAZILAND  
FINAL EXAMINATION PAPER**

**PROGRAMME:** B.Sc. IN AGRICULTURAL & 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 CONSUMER SCIENCE YEAR 1  
B.Sc. IN CONSUMER SCIENCE EDUCATION YEAR 1  
B.Sc. IN FOOD SCIENCE, NUTRITION & TECHNOLOGY  
YEAR 1  
B.Sc. IN HORTICULTURE YEAR 1  
B.Sc. IN TEXTILE AND APPAREL DESIGN & MANAGEMENT  
YEAR 1

**COURSE CODE:** CP 102

**TITLE OF PAPER:** BOTANY

**TIME ALLOWED:** TWO (2) HOURS

**INSTRUCTIONS:** ANSWER ANY FOUR QUESTIONS

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CHIEF INVIGILATOR**

**QUESTION 1**

- a) With an aid of a well labelled diagram, describe the anatomy of a monocotyledonous primary root and highlight the functions of individual parts. (20 MARKS)
- b) What are the main differences between the above mentioned root and that of a dicotyledonous plant? (5 MARKS)
- [25 MARKS]

**QUESTION 2**

- a) Distinguish between primary and secondary growth in angiosperms. Your comparison should include the type of organs, tissues and cells where the growth occurs. (16 MARKS)
- b) Describe the distribution of vascular bundles in primary dicotyledonous and monocotyledonous stems. (4 MARKS)
- b) In botanical terms describe the term 'Wood'. (5 MARKS)
- [25 MARKS]

**QUESTION 3**

Write short notes on the following terms related to the life cycle of angiosperms;

- a) Pollen grains (5 MARKS)
- b) Embryo sac (5 MARKS)
- c) Diploid zygote (5 MARKS)
- d) Triploid endosperm (5 MARKS)
- e) Development of the seed and fruit (5 MARKS)
- [25 MARKS]

**QUESTION 4**

Name five (5) crop species belonging to the sub-family **Papilionoideae** under the family **Fabaceae**. Your answer should include their common names, scientific names, as well as their uses. (25 MARKS)

**QUESTION 5**

a) Give the Family, Genus and Species of the following cultivated plants;

<b>Common name</b>	<b>Family</b>	<b>Genus</b>	<b>Species</b>
i) Rice			
ii) Green pepper			
iii) Apple			
iv) Cotton			
v) Sunflower			

1 MARK EACH= (15 MARKS)

b) Discuss the advantages and the possible disadvantages of using scientific names in botanical studies? (10 MARKS)