

UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER 2012/2013

- COURSE CODE : B202
- TITLE OF PAPER : PLANT MORPHOLOGY
- TIME ALLOWED : THREE (3) HOURS
- INSTRUCTIONS :
1. ANSWER ANY FOUR (4) QUESTIONS
  2. EACH QUESTION CARRIES 25 MARKS.
  3. ILLUSTRATE YOUR ANSWERS WITH LARGE AND CLEARLY LABELLED DIAGRAMS WHERE APPROPRIATE
- SPECIAL REQUIREMENTS : NONE

THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR(S).

**QUESTION 1.**

Describe and illustrate the morphology in the following fruits:-

- [a]. Pineapples (*Ananas comosus*). [9 Marks]  
 [b]. Oranges (*Citrus sinensis*). [8 Marks]  
 [c]. Banana (*Musa paradisiaca*). [8 Marks]  
 [Total 25 Marks]

**QUESTION 2.**

- [i]. Describe the morphological options in Angiosperm floral leaf insertion. [15 Marks]  
 [ii]. Give an illustrated description of the China rose (*Hibiscus rosa-sinensis*) flower. [10 Marks]  
 [Total 25 Marks]

**QUESTION 3.**

Buds have some significance in the development of the shoot and general plant canopy.

- [a]. Discuss the possible patterns that may be found in buds. [15 Marks]  
 [b]. Describe buds and highlight any modifications they may have. [10 Marks]  
 [Total 25 Marks]

**QUESTION 4.**

The Angiosperm corolla has several possible morphological types. Give an illustrated description of the aestivation types.

[25 Marks]

**QUESTION 5.**

Give an illustrated account of Racemose floral branching pattern in higher plants.

[25 Marks]

**QUESTION 6.**

Seed development is preceded by embryo sac development and fertilization in Angiosperms.

- [a]. Describe the embryo development process. [15 Marks]  
 [b]. Discuss fruit and seed dispersal noting the role of morphology in the process. [10 Marks]  
 [Total 25 Marks]

[TOTAL MARKS: 100]