Pwani University College

A Constituent College of Kenyatta University

UNIVERSITY EXAMINATIONS 2010/2011 ACADEMIC YEAR

1ST YEAR 2ND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE

COURSE CODE/TITLE: SBT 102: PLANT MORPHOLOGY AND ANATOMY

END OF SEMESTER: II **TIME: 3 HOURS**

DAY/TIME:…… **DATE: ……...**

INSTRUCTIONS

Answer **ALL** questions in Section **A** and any **TWO** in Section **B**

Illustrate your answers with diagrams where applicable.

SECTION A – (40 MARKS) ANSWER ALL QUESTIONS

Question One

a) Define the term plant. (1 mark)

b) Outline five (5) features that differentiate root from stem. (5 marks)

c) State four(4) functions of a plant stem. (4 marks)

Question Two

a) List two types of plant stems. (2 marks)

b) Using diagrams illustrate eight leaf shapes. (8 marks)

Question Three

a) Differentiate between a staminate flower and a pistillate (Carpellate) flower. (1 mark)

b) Describe five (5) main external parts of a flower (5 marks)

c) Describe the functions of the following leaf parts:-

i) Petiole. (1 mark)
ii) Lamina (blade). (1 mark)
iii) Stipules. (1 mark)
iv) Auxillary bud. (1 mark)

Question Four

a) Define the following terms:
- Plant Cell (1 mark)
- Tissue. (1 mark)
- Organelles (1 mark)
- Organ. (1 mark)
- Organ system. (1 mark)

b) State five (5) classes of plant's simple permanent tissues. (5 marks)

Question Five

Discuss five environmental stimuli sensed by plants that initiate a response. (15 marks)

Question six

Discuss the process of primary growth and development of the flowering plant. (15 marks)

Question Seven

Describe the events that take place in the flower after successful fertilization. (15 marks)