



A Constituent College of Kenyatta University

UNIVERSITY EXAMINATIONS 2010/2011 ACADEMIC YEAR

INSTITUTIONAL BASED PROGRAMME

**1ST YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF
EDUCATION AND OF SCIENCE**

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

END OF SEMESTER:II

DURATION: 3 HOURS

DAY/TIME:

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) List two types of plant stems. (2 marks)
- b) Illustrate eight(8) leaf shapes. (8 marks)

Question Two

- a) Define the term plant. (1 marks)
- b) Outline five(5) features that differentiate root from stem. (5 marks)
- c) State four(4) functions of a plant stem. (4 marks)

Question Three

- 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 Four

- 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)

SECTION B – (30 MARKS) – ANSWER ANY TWO QUESTIONS

Question Five

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

Question Six

Discuss the process of development and germination of the following plants. (15 marks)

Question Seven

Discuss five (5) environmental stimuli sensed by plants that initiate a response.
(15 marks)