



KENYATTA UNIVERSITY
UNIVERSITY EXAMINATIONS 2010/2011
INSTITUTE OF OPEN, DISTANCE AND E-LEARNING
SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF
EDUCATION AND BACHELOR OF SCIENCE
SBT 102: PLANT MORPHOLOGY AND ANATOMY

DATE: Wednesday 6th July, 2011

TIME: 8.00 a.m. – 10.00 a.m.

INSTRUCTIONS

Answer ALL questions in Section A and ANY ONE question in Section B. Answers in Section A should be concise and should be written in the spaces provided in the questions paper.

SECTION A: SHORT ANSWER QUESTIONS (5 MARKS EACH)

1. Outline five distinguishing features between the xylem tracheid and vessel.

2. Describe the concepts of floral morphology.

3. Describe the external morphology of the leaves of pteridophytes, angiosperms and gymnosperms.

4. Describe the tunica-corpus theory on organization of the shoot apex.

5. a) Describe the types of root systems found in angiosperms.

b) Describe two modifications of roots of xerophytes in relation to their environment.

6. Describe different types of meristems based on development and function and their contribution to the growth and development of plants.

7. Distinguish between the following

a) Endospermous and non-endospermous seeds

b) Amphivasal and amphicribal vascular bundle

c) Carcinotropous and anatropous ovule

d) Allogamy and autogamy

e) Endodermis and the pericycle

8. Describe different fleshy types of fruits found in angiosperms.

SECTION B – ESSAY QUESTIONS (30 MARKS)

1. Discuss the contribution of the knowledge and skills gained in the course of Plant Morphology and Anatomy to the agricultural and medical sector.
2. Write an essay on specialized type of stems.
3. Describe how secondary thickening take place in plants and its economic importance.

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