

University Examinations 2015/2016

SECOND YEAR SECOND SEMESTER MAIN EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE

IN FORESTRY AGROFORESTRY

FOR 224: PLANT STRUCTURE AND FUNCTION

TIME: 3 HOURS

INSTRUCTIONS TO CANDIDATES: Answer ALL questions in Section A and any TWO questions in Section B

Section A (30 marks)

Answer ALL questions in this Section

1. Define the following terms

(a) Phyllotaxy.

(b) Meristems.

(c) Chemical potential.

(d) Apoplastic movement.

(e) Periderms.

2. Briefly outline the roles of plant physiology in agroforestry.

3. Describe how plants absorb water from the soil.

4. Using aid of labeled diagrams discuss secondary growth in plants.

5. Describe the various relations of xylem and phloem tissues.

6. Discuss the role of the root cap in plant development.

Secondary xylem surround a phloem
Amphibial - phloem completely surround
Amphibial - xylem " " phloem
(1 mark)

(1 mark)

(1 mark)

(1 mark)

(1 mark)

(5 marks)

(5 marks)

(5 marks)

(5 marks)

(5 marks)

Section B (40 marks)

Answer any TWO questions in this Section, all questions carry equal marks.

7. Discuss processes by which plants lose water to the environment.

8. Discuss the effects of environmental pollution on agroforestry.

9. Describe the various photosynthetic pigments.

(20 marks)

(20 marks)

(20 marks)

56
4
39