

University Examinations 2015/2016

SECOND YEAR FIRST SEMESTER EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN AGROFORESTRY AND RURAL DEVELOPMENT

AFR 310: AGROFORESTRY SYSTEMS, PRACTICES AND TECHNOLOGIES I
TIME: 3 HOURS

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

Section A: Answer all questions (30 Marks)

Q1. (i) What is farm forestry? (2 marks)

(ii) What is the difference between farm forestry and agroforestry? (2 marks)

(iii) Explain the term "Tree Domestication" as used in agroforestry (2 marks)

Q2. Describe the major groups of components and their spatial arrangements in the following agroforestry practices:

(i) Improved fallows (2 marks)

(ii) Protein banks (2 marks)

(iii) Aquaforestry (2 marks)

Q3. Explain the functions of the cultivation phase and that of the fallow phase in shifting cultivation (6 marks)

Q4. Compare and contrast the taungya system and the shifting cultivation system. (6 marks)

Q5. Highlight the main areas of failure of the alley cropping technology where its performance has not met the expectations of its users (6 marks)

Section B: Answer any two questions (40 Marks)

Q6. Discuss the potentials and challenges of biomass transfer technology in Kenya (20 marks)

Q7. Discuss the ecological and economic advantages of coffee based agroforestry systems (20 marks)

Q8. Describe appropriate agroforestry systems for the following farming systems in Kenya:

(i) The subsistence food crops system (10 marks)

(ii) The cashew-coconut system (10 marks)

Handwritten notes:
* According to my... to satisfy human
* Some... extracted... phosphate - nitrite
* Ambiguous... above the soil surface
* Located... in small areas
* Inexhaustible... in terms of supply - Reason for non...