

UNIVERSITY OF KABIANGA

UNIVERSITY EXAMINATIONS THIRD YEAR FIRST SEMESTER 2016/2017

AFR 313: MULTIPURPOSE TREES IN AGROFORESTRY

INSTRUCTIONS TO CANDIDATES

SECTION A: ANSWER ALL QUESTIONS IN THIS SECTION (30 MARKS)

1. Explain what you understand by the following concepts as applied in agroforestry studies
 - i) Multipurpose trees (3 marks)
 - ii) Evaluation of Multipurpose trees (3 marks)
2. Explain the main reasons for growing multipurpose trees and Shrubs in agroforestry system (6 marks)
3. Giving examples, Explain how trees and shrubs can be multipurpose (6 marks)
4. The following terms are used in the selection of multipurpose trees in an agroforestry system. Explain why they are considered important in the selection process.
 - i) Site matching (2 marks)
 - ii) Environmental matching (2 marks)
 - iii) Provenance (2 marks)
5. Highlight the major negative tree-crop interactions in an agroforestry system and explain how each can be corrected. (6 marks)

SECTION B: ANSWER ANY TWO QUESTIONS (40 MARKS)

- ~~6.~~ a) Discuss the different phases involved in the evaluation of Multipurpose trees for agroforestry systems (12 marks)
- b) Discuss the general criteria for selecting Multipurpose trees and Shrubs (8 marks)
- ~~7.~~ Describe the selection criteria of multipurpose trees suitable for the following agroforestry systems
 - i) Alley cropping (4 marks)
 - ii) Soil protection and rehabilitation (4 marks)
 - iii) Decoration and enjoyment (4 marks)
 - iv) Windbreaks (4 marks)
 - v) improved fallow systems (4 marks)
8. Compare and contrast the available methods of establishing multipurpose trees and shrubs in Agroforestry systems (20 marks)