



1ST SEM 2011/2012

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**UNIVERSITY OF SWAZILAND
FINAL EXAMINATION PAPER**

PROGRAMME: B.Sc. IN AGRONOMY YEAR 4

COURSE CODE: CP 401

TITLE OF PAPER: AGROFORESTRY

TIME ALLOWED: TWO (2) HOURS

**INSTRUCTIONS: ANSWER ALL QUESTIONS IN SECTION A AND ANY OTHER
THREE QUESTIONS IN SECTION B, MAKING A TOTAL OF
FIVE**

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CHIEF INVIGILATOR**

Answer all questions in section A and any other three questions in section B, making a total of five

SECTION A THIS SECTION IS COMPULSORY

QUESTION 1

- (a) Define agroforestry. (5 marks)
 - (b) What are the key words in this definition. (5 marks)
 - (c) Discuss the niche for agroforestry practices. (10 marks)
- [20 MARKS]**

QUESTION 2

- (a) Why is agroforestry important? (5 marks)
 - (b) What kind of trees and shrubs do you like to use in the following agroforestry practices:
 - (i) fodder banks,
 - (ii) soil and water conservation,
 - (iii) fuelwood production.(15 marks)
- [20 MARKS]**

SECTION B ANSWER ANY THREE QUESTION FROM THIS SECTION

QUESTION 3

- (a) What constitutes nutritive value of fodder trees and shrubs? (5 marks)
 - (b) What is biomass transfer and the different types of biomass transfer? (5 marks)
 - (c) What are the advantages and problems associated with biomass transfer in crop production? (10 marks)
- [20 MARKS]**

QUESTION 4

- (a) Distinguish agroforestry from pure agriculture. (10 marks)
 - (b) Distinguish the following: (2 marks each)
 - (i) pollarding,
 - (ii) coppicing,
 - (iii) pruning,
 - (iv) multistrata,
 - (v) parklands.(10 marks)
- [20 MARKS]**

QUESTION 5

- (a) Outline the major services obtained from incorporation of trees and shrubs on farms. (10 marks)
- (b) What factors influence the survival and establishment of tree seedlings after transplanting to the field? (10 marks)
- [20 MARKS]**

QUESTION 6

- (a) Discuss the need for and limitations of improved fallows. (10 marks)
- (b) What are the advantages of home gardens. (5 marks)
- (c) Distinguish with examples, concomitant from coincident agroforestry temporal arrangements. (5 marks)
- [20 MARKS]**

QUESTION 7

- (a) Distinguish sequential from simultaneous types of agroforestry practices. (5 marks)
- (b) What is carbon sequestration? (5 marks)
- (c) How do trees and shrubs improve soil fertility? (10 marks)
- [20 MARKS]**