

UGANDA MARTYRS UNIVERSITY



NGETTA CAMPUS FACULTY OF AGRICULTURE

CERTIFICATE IN AGRICULTURAL PRODUCTION

COURSE CODE; CAP1104 INTRODUCTION TO AGROFORESTRY

FINAL ASSESSMENT

ACADEMIC YEAR 2022/2023 SEMESTER ONE

CAP I

DATE: 05th /Dec /2023

TIME ALLOWED: 3 HOURS (9:00am-12:00pm)

INSTRUCTIONS:

- *Attempt **four (4)** questions*
 - *Start every question on a **new** page*
 - *Do not write anything on the question paper*
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1a) What do you understand by the term agroforestry? (**1marks**)

b) Discuss how relevant agroforestry practices to a farmer in your area. (**24marks**)

2a) Explain what is meant by multipurpose Trees and shrubs with the help of examples (**2marks**)

b) Enumerate at least four guidelines one should consider before selecting multipurpose trees and shrubs (**8marks**)

c) Explain the importance of multipurpose trees and shrubs (**15 marks**)

3a) Write short notes on the following terms as applied in agroforestry with examples

- i. Agro-silviculture (**5marks**)
- ii. Silvopastoral systems (**5 marks**)
- iii. Agrisilvopastoral system (**5 marks**)
- iv. Improved fallows (**5 marks**)
- v. Home gardens (**5marks**)

4. Discuss at least a minimum of five key high value trees that could be recommended for farmers in your district. Tabulate the common name of the tree, botanical name, its key attributes, minimum harvesting age and its major uses. **(25 marks)**

5a) Briefly write short notes on the following **(25 marks each)**

- i. Nursery tree establishment and management **(5marks)**
- ii. Potting of tree seedlings **(5marks)**
- iii. Care and management of potted seedlings **(5marks)**
- iv. Transplanting tree seedlings **(5marks)**
- v. Care of seedlings in the field **(5marks)**

6. Describe the three different types of tree nurseries you know **(6 marks)**

b) Explain the correct type and mixtures of soils appropriate for tree nursery plots **(4 marks)**

c) State the characteristics of suitable sites for tree nursery establishment **(15 marks)**

7a). As a technical expert in the field of agroforestry, which characteristics would you recommend to farmers while choosing agroforestry tree species? **(16 marks)**

b) With examples elaborate on the following;

- i. Tree animal negative interactions **(3 marks)**
- ii. Tree crop positive interactions **(3marks)**
- iii. Tree biotic interactions **(3 marks)**

8. Write short notes on the following;

- i. How to select good mother trees **(6 marks)**
- ii. Suitable time of seed collection **(2 marks)**
- iii. Proper seed collection techniques **(5 marks)**
- iv. Careful seed handling and extraction **(5 marks)**
- v. Good packaging and storage **(4marks)**
- vi. Effective pre-sowing treatment methods **(3 marks)**

GOOD LUCK