(*University of Choice*)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS 2021/2022 ACADEMIC YEAR

SECOND YEAR SECOND SEMESTER EXAMINATIONS

MAIN EXAMINATION

FOR THE DIPLOMA IN:

HORTICULTURE

COURSE CODE: DAH: 082

COURSE TITLE: BEVERAGE, MEDICINAL AND NUT CROPS

DATE: **TIME:**

INSTRUCTIONS TO CANDIDATES

Answer ALL questions in section A and any TWO in section B

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SECTION A: Answer all questions (40 Marks)

1. Define the following terms
a) Beverage (2marks)
b) Nut (2marks)
c)Herb (2 marks)
d) Spice (2 marks
e)Culinary (2marks)

2.a) State two main species of coffee (2 marks)
b) Name four types of tea (2 marks)
c) State two uses of cocoa (2marks)
d) Briefly, explain the formation of a tea plucking table. (4 marks)
3. a) Mention three benefits of medicinal plants (3 marks)
b) Outline the insecticidal properties of pyrethrum (3marks).
C)State **FOUR** reasons why pruning is necessary in coffee. (4marks)

4. a) Name the two types of beverages (2 marks)
b) List two examples of alcoholic and non- alcoholic beverages (2 marks)
c) List two examples each of spices, herbs and nut crops (6marks)

SECTION B: Answer any two questions (30 marks)

5.Beverage crops are some of the most important export crops produced in Kenya. Discuss briefly
a) the economic importance of Beverage crops (5marks)
b) describe the challenges facing Beverage crop production in Kenya (5 marks)
c) the processing of coffee (5marks)

6. Write short notes on the following
a) The economic importance of medicinal crops in Kenya (5marks)
b) Mention five spices used in Kenya and their health benefits (10marks)

7. Discuss nut crops under the following headings; (15marks)
a)industrial processing of coconut
b) step wise propagation of macadamia
c)products of cashew nut crop
d)importance of nut crops in Kenya

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UNIVERSITY EXAMINATIONS (REGULAR)
2021/2022 ACADEMIC YEAR

FOURTH YEAR SECOND SEMESTER EXAMINATIONS FOR THE DEGREE OF B.Sc. IN: AGRICULTURE & BIOTECHNOLOGY

COURSE CODE: ACR 407
COURSE TITLE: SEED SCIENCE AND TECHNOLOGY

DATE: 25TH APRIL, 2022 **TIME: 8-10 AM**

INSTRUCTIONS TO CANDIDATES
Answer ALL questions in section A and ANY TWO questions in section B

TIME: 2 Hours
Total marks=70

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Section A (40Marks)

1. Outline the characteristics of wind-pollinated flowers **(2Marks)**
2. Does apomixis require fertilization and pollination? Give reasons in support of your answer? **(3 Marks)**
3. Give **FOUR** reasons why knowledge of the chemical composition of seeds is essential **(4Marks)**
4. Highlight **FOUR** differences between a seed and a grain. **(4 Marks)**
5. State **SIX** general principles of seed storage **(3Marks)**
6. List **FOUR** Objectives of Seed Testing **(2 Marks)**
7. Explain the following systems of seed drying
   i. Main and lateral duct system **(2 Marks)**
   ii. Single central perforated duct **(2 Marks)**
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8. Outline the importance of seed dormancy in agriculture **(4 Marks)**
9. Explain plant breeder right. What are the benefits of PBR? **(4 Marks)**
10. Explain**TWO**types and methods of seed production in maize **(4 Marks)**
11. Outline methods used in the maintenance of genetic purity during seed productionas suggested by Hartman and Kestar (1968) **(4Marks)**

Section B (30 Marks)

12. Discuss the components you will use to determine seed quality **(15 Marks)**
13. Discuss the Challenges facing the seed sector in Kenya **(15 Marks)**
14. Describe the structure of the embryo sac of a mature angiosperm. Explain the role of synergids in it **(15 Marks)**

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