



(University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY

MAIN CAMPUS
UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR

THIRD YEAR FIRST SEMESTER EXAMINATIONS
MAIN EXAMINATION

FOR
DIPLOMA
IN
GENERAL AGRICULTURE

COURSE CODE: DAG 101
COURSE TITLE: SEED PRODUCTION AND CERTIFICATION

DATE: 13/1/22

TIME: 3-5 PM

INSTRUCTIONS TO CANDIDATES

Answer ALL Questions in Section A and any TWO other Questions in Section B

MMUST observes ZERO tolerance to examination cheating

This paper consists of 2 printed pages. Please turn over

49
114
63

63
15
178
90

70
122
107

SECTION A (40 marks)

1. Briefly define the following terms

a) Seed production

b) Seed quality (2 marks)

c) Certified seed

d) Germination capacity

e) Variety

(2 marks)

(2marks)

(2 marks)

2.a) List Four methods of breeding in self-pollinated crops(4marks)

b) Outline the seed production stages (6marks)

3. a) State the meaning of the following acronyms and their role as key players in Kenya's seed industry (8marks)

KALRO

KEPHIS

KSC

NSQCS

b) Explain briefly the meaning of these terminologies in the Kenyan Breeding (2marks)

i) Breeder seed

ii) Foundation Seed

4. a) List FIVE factors considered in selection of land for seed production(5 marks)

b) Outline THREE factors which determine when seed is produced in Kenya(3marks)

c) State the difference between cultivar and variety. (2marks)

SECTION B (30 marks)

5.a) Outline the importance of seed production and certification in Kenya.(5 marks)

b) Briefly, explain the two seed systems of the seed industry in Kenya. (5marks)

c) State the challenges facing the seed industry in Kenya (5 marks)

6. a) Explain the requirements for a seed development programme. (10marks)

b) State the FIVE Phases of seed certification (5marks)

7.a). State the main features of the Kenya Seeds and Plant Varieties Act (Cap 326)(5 marks)

b) List the Characteristics of good quality seed (5marks)

c) In breeding of Hybrid maize, list the agronomic practices to be considered. (5 marks)

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UNIVERSITY MAIN EXAMINATIONS

2021/2022 ACADEMIC YEAR

**FIRST YEAR SECOND SEMESTER
EXAMINATIONS FOR DIPLOMA LIFE SKILLS**

COURSE CODE: DAG 056

COURSE TITLE: life skills

DATE: 20TH APRIL, 2022

TIME: 8-10AM

**INSTRUCTIONS TO CANDIDATES:
ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS.**

TIME: 2 Hours

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SECTION A: ANSWER QUESTION ONE (30 MARKS)

QUESTION ONE

1. a) Outline five challenges facing farmers in Kenya **(15marks)**
- b) Explain how life skills can be used to solve challenges in question 1a above **(15marks)**

SECTION B: ANSWER ANY TWO QUESTIONS (40 MARKS)

QUESTION TWO

2. Explain five responsibilities of a leader in a group **(20 marks)**

QUESTION THREE

3. Describe the five suitable teambuilding activities that can be used in improving team work **(20 marks)**

QUESTION FOUR

4. Highlight information required when planning for a life skills training for farmers **(20 marks)**

QUESTION FIVE

5. Describe characteristics of a team **(20 marks)**



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- b) Explain how life skills can be used to solve challenges in question 1a above (15marks)

SECTION B: ANSWER ANY TWO QUESTIONS (40 MARKS)

QUESTION TWO

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QUESTION THREE

3. Describe the five suitable teambuilding activities that can be used in improving team work (20 marks)

QUESTION FOUR

4. Highlight information required when planning for a life skills training for farmers (20 marks)

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MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR**

SECOND YEAR SECOND SEMESTER EXAMINATIONS

MAIN EXAMINATION MARKSHEET

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)

any fluid which is consumed by drinking.

is a potable drink other than water.

something you drink other than water e. g tea, coffee, beer, or milk

The word beverage was derived from the old French word 'boivre' or the modern French word 'boire' that means a 'drink'.

b) Nut

(2marks)

Small hard fruit with a very hard shell that grow on some trees e. g cashew nut, coconut, macadamia

c) Herb

(2 marks)

any plant with leaves, seeds, or flowers used for flavoring, food, medicine, or perfume.

d) Spice

(2 marks)

A spice is a seed, fruit, root, bark, or any other plant substance primarily used for flavoring, coloring or preserving food.

e) Culinary

(2marks)

Of or related to the kitchen or cookery. concerned with cooking.

Something related to food and how to cook it e.g skill in cooking, i.e. **kneading dough, peeling vegetables, folding in ingredients, simmering, boiling and creaming**

Relating to the practice of cookery or the activity of cooking.

2.a) State two main species of coffee

(2 marks)

Coffee Arabica

Coffee Robusta

b) Name four types of tea

(2 marks)

White teas - composed of tea leaves that have been withered or steamed and dried.

Green teas - generally withered, then steamed or fried, then rolled or dried.

Oolong teas - undergo a bruising step after the leaves have been withered. The leaves are then fermented for a short while and are subsequently pan-fried and dried.

Black teas - processed via the same method as oolong teas, the only difference is that black teas are allowed to fully ferment or oxidize, whereas the oolong teas are limited in this step.

c) State two uses of cocoa (2marks)

Animal feed from cocoa husk - The animal feed is produced by first slicing the fresh cocoa husks into small flakes and then partially drying the flakes, followed by mincing and pelleting and drying of the pellets.

Production of soft drinks and alcohol - In the preparation of soft drinks, fresh cocoa pulp juice (sweatings) is collected, sterilised and bottled. For the production of alcoholic drinks, such as brandy, the fresh juice is boiled, cooled and fermented with yeast. After 4 days of fermentation the alcohol is distilled.

Potash from cocoa pod husk - Cocoa pod husk ash is used mainly for soft soap manufacture. It may also be used as fertiliser for cocoa, vegetables, and food crops. To prepare the ash, fresh husks are spread out in the open to dry for one to two weeks. The dried husks are then incinerated in an ashing kiln.