



MURANG'A UNIVERSITY OF TECHNOLOGY
SCHOOL OF AGRICULTURE AND ENVIRONMENTAL
STUDIES

DEPARTMENT OF AGRICULTURE

TVET EXAMINATION

2023/2024 ACADEMIC YEAR

FIRST YEAR SECOND SEMESTER EXAMINATION FOR DIPLOMA IN

HO/CU/NM/CR/02/6/B: MOTHER BLOCK ESTABLISHMENT

DURATION: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

1. Answer question one and any other two questions.
2. Mobile phones are not allowed in the examination room.
3. You are not allowed to write on this examination question paper.

SECTION A: ANSWER ALL QUESTIONS IN THIS SECTION

QUESTION ONE (40 MARKS)

- a. Define the following terms. (8 marks)
- i. Mother Block
 - ii. Mother Plant
 - iii. Soil testing
 - iv. Food Safety
- b. Distinguish the following
- i. Root stock and scion. (4 marks)
 - ii. Seedling rootstock and clonal rootstock. (4 marks)
- c. (i)What is biological indexing? name some indicators plant for specific viruses in citrus. (5 marks)
- (ii)list three types of propagating materials. (3 marks)
- d. (i) Enumerate the general shortcoming practiced in fruit nurseries. (4 marks)
- (ii) Explain four characteristics of good rootstock. (4 marks)
- e. (i) Give four sources of planting materials. (4 marks)
- (ii)list four tools required when planting mother block. (4 marks)

SECTION B – ANSWER ANY THREE QUESTIONS IN THIS SECTION

QUESTION TWO (20 MARKS)

- a. State and explain five factors to consider in selecting a mother block site. (10 marks)
- b. Discuss the importance of mother stocks in fruit propagation. (10 marks)

QUESTION THREE (20 MARKS)

- a. Draw a schematic representation of methodology of a successful citrus certification programme. (10 marks)
- b. Discuss planting mother blocks under the following sub-headings
- i. Required tools and equipment. (5 marks)
 - ii. Material and supplies for producing propagating (5 marks)

QUESTION FOUR (20 MARKS)

- a. Explain the effect of stock on scion cultivar. (10 marks)
- b. Discuss planting of mother stock under the following
- i. Planting depth. (5 marks)
 - ii. Spacing of the mother stock. (5 marks)

QUESTION FIVE (20 MARKS)

- a. Discuss land preparation in establishing mother block. (10 marks)
- b. Explain the maintenance and management of mother stock. (10 marks)