



The Co-operative University of Kenya

END OF SEMESTER EXAMINATION AUGUST -2018

EXAMINATION FOR THE DIPLOMA IN AGRIBUSINESS MANAGEMENT
(YR II SEM I)

UNIT CODE: DAFS 2114

UNIT TITLE: INTRODUCTION TO HORTICULTURE

DATE: 23RD AUGUST, 2018

TIME: 2:00 PM – 4:00 PM

INSTRUCTIONS:

- Answer question **ONE (compulsory)** and any other **TWO** questions

QUESTION ONE

- (a) How would you define Horticulture. (2 Marks)
- (b) Briefly describe the following terms as used in horticultural production; (4 Marks)
- Nursery bed
 - Hardening grafting
 - Seedling grafting
 - Pruning
- (c) Despite the continued steady growth of the Kenyan horticulture industry, it is faced with various challenges. State any **FOUR** of the major challenges. (4 Marks)
- (d) Identify **THREE** types of propagation structure used for horticultural crops and briefly explain how each of them works. (6 Marks)
- (e) Most horticultural crops start their growth by use of a nursery to raise seedling, which are then transplanted to the main field to grow to maturity.
- State **TWO** designs of a basic nursery bed. (2 Marks)
 - What advantage does using nursery trays for growing vegetable seedlings have? (1 Mark)
 - List any **THREE** options of soil or soil mixture or planted media used in growing of vegetable nursery seedling. (6 Marks)
- (f) Kenyan roses are quite popular on the international market cut flowers. Which method of propagation is used for these flowers and what propagation structures are best suited for producing them? Where (which area/region/locality) in Kenya are they mostly grown?

QUESTION TWO

Cabbage belongs to the brassicas family of vegetables.

- List any **FOUR** other brassicas you know. (2 Marks)
- What economic importance do cabbages have? (2 Marks)
- Give two ways of utilizing the harvested cabbage fresh vegetable. (2 Marks)
- Describe the production practices of a cabbage variety you choose.
Within the narrative, explain the whole process from nursery, transplanting field management practices, at least 1 major pest & 1 common disease with the management and control measures. Then also explain the recommended harvesting, packaging, transportation and marketing of the fresh produce. (14 Marks)

QUESTION THREE

- Name any **TWO** temperate and **TWO** tropical fruits you know about. (2 Marks)
- What are fruits most important for in human diet? (2 Marks)

- (c) With the selection of Either Orange as a tropical fruit OR apple as a temperate fruit discuss its key production and management aspects starting from the transplanting stage or field planting till harvesting and transportation to the nearest major market for wholesale. Include some 2 major pest that affect the fruit and the recommended management and control of such a pests to reduce or avoid damage on the fruits. (16 Marks)

QUESTION FOUR

- (a) You have been asked to advice a Primary School within your neighborhood to who want to establish 2 acres of bananas. It is found that before the bananas grow to a size that will shade most of the ground, it will be useful to have an intercrop of cowpeas that will be used as vegetables for the school community.
- (b) Briefly outline how this establishment and management of the selected crops will be carried out, For both crops, include;
- The ideal ecological requirements for the crops optimum production
 - Soil nutrition and cultivation/routine practices
 - Management practices that will be carried out on the growing banana plants
 - Measures to be used in preventing, and controlling pest and disease effects
 - Harvesting and postharvest handling of the ready to harvest produce. (20 Marks)

QUESTION FIVE

Tomato Production using greenhouses is becoming more popular and seems to be getting higher yields compared to the open-field method of production. You have been asked to guide a prospective tomato farmer on this enterprise and he has already acquired and installed a small greenhouse with an accompanying drip irrigation kit for the plants.

- (a) Make a choice of two greenhouse variety of tomatoes. (1 Mark)
- (b) Explain THREE advantages of producing the tomatoes in a greenhouse although the initial cost of installing the structure could be quite high. (3 Marks)
- (c) Describe, stepwise the method to be used in growing any one variety of greenhouse tomatoes to give maximum yields of the fruits till they are harvested for sale to an institution who are supplied once a week. (16 Marks)