

081205T4HPN

HORTICULTURE PRODUCER LEVEL 5

HO/OS/HP/CR/03/5/B

PRODUCE TEMPERATE FRUITS

July/August 2024



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)**

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INSTRUCTIONS TO THE CANDIDATE:

1. This paper consists of two sections; **A** and **B**
2. Answer **ALL** the question as guided in each section
3. Marks for each question are as indicated in the brackets
4. You are provided with a separate answer booklet to answer the questions
5. Do not write in this question paper

This paper consists of THREE (3) printed pages

Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing

SECTION A: (40 MARKS)

Answer ALL questions in this section.

1. Carrying out soil analysis before establishing any temperate offers several benefits. Highlight FOUR benefits for carrying out soil analysis in Plum fruit production [4 marks]
2. Mature fruits can be identified using several parameters. Mr. Billy a farmer in Nyeri County has planted Pears fruit in his farm and it is ready for harvesting. Name FOUR parameters that he can use to identify mature Pear fruits. [4 marks]
3. Different types of Plums varieties can be grown. A farmer wants to establish Plums in his orchard, as an expert advise him on the FOUR Plum fruit varieties. [4 marks]
4. Apples produce fruits on the branches that are horizontal to the ground, they should be well spread out by bending them to the horizontal position. State FOUR reasons for training Apple fruits. [4 marks]
5. Apples are highly perishable temperate fruits. Mr Nosh harvested his Apples fruits and wants to store them. Name FOUR ideas for harvested Apples. [4 marks]
6. Post-harvest losses in plums occurs factors. Outline FOUR causes of post-harvest losses in Plums fruit. [4 marks]
7. Pruning is one of the good agricultural practices used out in temperate fruits. A farmer in Kitale County wants to prune his Apricot fruit, list FOUR reasons for pruning Apricot fruit. [4 marks]
8. Mulching has proved to very effective measure for improving the performance of many fruit crop. Name FOUR benefit of mulching in Peach fruit production. [4 marks]
9. Soil fertility in temperate fruits can be maintained in many ways. Highlight FOUR benefits of applying organic manure in a Peach orchard. [4 marks]
10. Fruit thinning is a horticultural practice performed on fruit-bearing plants, to enhance the quality and size of the remaining fruits. State FOUR reasons for carrying out thinning in Apricot. [4 marks]

SECTION B: (60 MARKS)

Answer any **THREE** questions in this section.

11.

- a. Physiological disorders in Apples refer to abnormalities that affect the fruit's appearance, texture and quality. Bitter pit is one of the physiological disorder in Apple. Describe Bitter pit disorder under the following sub heading.
- i. Causes. [1 mark]
 - ii. Symptoms [6 marks]
 - iii. Control [3 marks]
- b. Different Peach varieties perform differently. Mr Kamau wants to establish Peaches on the farm. Explain FIVE factors to consider when selecting Peach tree variety for planting. [10 marks]

12.

- a. Fruit growers become worried if the fruit does not start bearing at the time expected, or if fruit does not set even after abundant flowering. Describe FIVE factors which may cause this problem. [10 marks]
- b. Peaches are susceptible to several diseases caused by fungi, bacteria, and viruses Explain FIVE diseases that attack Peaches. [10 marks]

13. Pear fruits, are popular fruits known for their sweet and juicy flesh. Describe the production of Pear fruits under the following sub-heading.

- i. Variety. [2 marks]
- ii. Ecological requirements. [4 marks]
- iii. Field management practices. [10 marks]
- iv. Post- harvest practices. [4 marks]

14.

- a. Graft union failure is where the graft joint between the scion and the rootstock does not successfully fuse and support the long-term growth of the plant. Explain FIVE Factors contributing to the failure of a graft union. [10 marks]
- b. Fertilizer application in plum fruit production can be done using different methods to optimize plant performance. Explain FIVE methods of fertilizer application in Plum fruits production [10 marks]

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