

081205T4HPN

Horticulture Production Level 5

HO/OS/HP/CR/06/5/B

Produce Herbs and Spices

July /Aug. 2023



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

WRITTEN ASSESSMENT

Time: 3 Hours

INSTRUCTIONS TO CANDIDATE

1. This paper has three sections **A, B** and **C**. Answer questions in each section as per instructions given in the section.
2. You are provided with a separate answer booklet.
3. Marks for each question are indicated in the brackets.
4. Do not write on the question paper

This paper consists of SEVEN (7) printed pages.

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

SECTION A: (40 MARKS)

Answer ALL questions in this section. Each question is 1 mark

1. Which of the following part of a plant is spices made from
 - A. Cell
 - B. Flower
 - C. Root
 - D. Petal
2. The aromatic volatile components of spices are called_____
 - A. Spice oil
 - B. Spice fat
 - C. Spice gel
 - D. Spice paste
3. _____ is the edible part of Ginger.
 - A. Seed
 - B. Root
 - C. Rhizome
 - D. Leaf
4. Use of pheromones in a greenhouse for Mint production is used to monitor_____
 - A. Weeds
 - B. Pests
 - C. Light
 - D. Nutrient content
5. Which statement among the following is true about Rosemary?
 - A. They are scentless
 - B. They are grown from cuttings
 - C. Its economic part is the stem
 - D. It rarely grows above one meter

6. Identify the best post-harvest practice for prolonging the shelf life of bulb onions from the list below.
- A. Grading
 - B. Storage in a cool place
 - C. Chitting.
 - D. Curing
7. What are the benefits of levelling the land before sowing Coriander seeds?
- A. For beauty
 - B. To enhance branching
 - C. For easy germination
 - D. For uniform germination
8. In which family does Mint belong to_____
- A. Lamiaceae
 - B. Zingiberaceae
 - C. Labiatceae
 - D. Umbeliceae
9. Dumping off disease in Chives is caused by_____
- A. Protozoa
 - B. Virus
 - C. Bacteria
 - D. Fungus
10. _____is a post-harvest practice in Garlic production.
- A. Curing
 - B. Watering
 - C. Pruning
 - D. Fertilization

11. The practice of categorizing produce based on color, shape and degree of ripening is referred to as _____
- A. Curing
 - B. Sorting
 - C. Packaging
 - D. Grading
12. Which of the following crops can be propagated by drilling method?
- A. Coriander
 - B. Rosemary
 - C. Ginger
 - D. Lemon grass
13. The importance of digging a seedbed for herbs and spices at least 30 cm deep is
- A. To improve soil structure
 - B. To prevent soil erosion
 - C. To alter soil pH
 - D. To remove perennial weeds
14. _____ is the main reason of harvesting herbs at the right stage.
- A. So that the land can be prepared for something else
 - B. To capture the optimum flavor
 - C. For quick processing
 - D. For high yield
15. The importance of levelling the land before sowing coriander seeds is _____
- A. To control erosion
 - B. To ease harvesting
 - C. For easy germination
 - D. For uniform germination

16. The main reason of soil analysis before establishing Rosemary is _____
- A. Because it is a law in Kenya
 - B. For the production of disease free plants
 - C. The results help the farmer to know the status of the soil.
 - D. The results are used by the farmer in the subsequent years
17. Which one of the following is a benefit of using seeds as a planting material?
- A. The seeds are less bulky
 - B. Low adaptability
 - C. Faster establishment
 - D. Low production
18. Select a factor considered in nursery site selection from the options below
- A. Topography of the land
 - B. Land certificate
 - C. Skills required
 - D. Availability of capital
19. Identify the disadvantage of land preparation?
- A. Destruction of soil structure
 - B. To destroy pest and diseases
 - C. To improve the water holding capacity
 - D. To make the subsequent operations possible
20. _____ Fertilizer is necessary for vegetative growth in Coriander.
- A. Phosphorus
 - B. Potassium
 - C. Nitrogen
 - D. Calcium

SECTION B (40 MARKS)

Answer ALL question in this section

21. A farmer wants to purchase planting material for Herb and Spices. Advise him on the factors to consider while sourcing them. (4 marks)
22. As a marketing officer, state FOUR maturity indices you will observe before harvesting fresh herbs and spices. (4 marks)
23. Sarah has harvested Ginger from his farm. List FOUR post-harvest handling practices carried out in Ginger. (4 marks)
24. State FOUR Ecological requirements for Rosemary production. (4 marks)
25. Identify FOUR symptoms of Mint rust. (4 marks)
26. Highlight FOUR Good Agricultural Practices (GAP) applied in Basil production. (4 marks)
27. Identify FOUR varieties of Mint grown in Kenya. (2 marks)
28. Outline post-harvest handling in Parsley (4 marks)
29. Explain THREE factors that cause premature bolting in Coriander. (6 marks)
30. State FOUR symptoms of powdery mildew disease in Coriander. (4 marks)

SECTION C (40 MARKS)

Answer any TWO questions in this section

31. Mr. Nill is a banker and he wants to start Garlic farming in Kajiado. As a specialist advise him on the following
- i. Physical characteristics of the plant; (10 marks)
 - ii. Field management practices; (6 marks)
 - iii. Harvesting. (4 marks)
32. a. An investor from German want to start herbs and spices farming in Kenya. As a horticulturalist advise on the importance of herbs and spices. (10 marks)
- b. Explain FIVE nursery management practices of Coriander. (10 marks)
33. You are working with a group of farmers who have been planting Rosemary for export and now they want to expand to Chives farming for a new market. Advise them on the following:
- i. Ecological requirements; (3 marks)
 - ii. Establishment; (7 marks)
 - iii. Maturity, Harvesting and Post-Harvest Handling. (10 marks)