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**Time : 2 Hours****COMMERCIAL CROPS****Subject Code**

V	4	2	9	4
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**Total No. of Questions : 23 (Printed Pages : 4)****Maximum Marks : 50**

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- INSTRUCTIONS :**
- (i) There are *four* sections in the question paper (A, B, C & D) consisting of **23** questions.
  - (ii) Figures to the right indicate marks allotted to each question.
  - (iii) Write the number of each question clearly on the answer-book.
  - (iv) In section 'A' there are *eight* questions of which question numbers **1** to **4** are multiple choice questions and question numbers **5** to **8** are to be answered in *one* or *two* sentences each.
  - (v) Attempt *all* the questions. However, internal choice is given for question numbers **20** and **23**.

**SECTION A**

1. The most important trade forms of arecanut in which riped nutes are dried in the sun for 35-40 days are known as ..... . 1
- Chali
  - Scented Supari
  - Kalipak
  - Coloured Supari

2. The planting system followed in commercial cultivation of Oil Palm is ..... . 1
- Square
  - Rectangular
  - Adjacent
  - Triangular
3. The development of the attractive yellow colour, aroma in turmeric rhizomes is due to ..... pigment. 1
- Curcumin
  - Chlorophyll
  - Anthocyanin
  - Zanthophyll
4. Periodical pruning of dead wood and criss-cross branches of cashew during the month of July is recommended to minimize the losses through diseases ..... . 1
- Powder mildew
  - Anthracnose
  - Die back
  - Leaf roll
5. Name the food material which is preserved by using sun drying method. 1
6. State the uses of 'Kokum'. 1
7. How is harvesting and processing carried out in 'Cinnamon' ? 1
8. Name *two* products extracted from '*Myristica fragrance*'. 1

## SECTION B

9. What is 'Pickling' ? Enlist the precautions to be taken while preparing pickle. 2
10. Define 'Jam'. How much sugar is added to prepare jam from 1 kg pineapple slices ? 2
11. Explain the following Post-Harvest techniques : 2
- (i) Air-cooling
- (ii) Hydro-cooling.
12. State any *four* advantages of corrugated fibre board boxes as packing material for fruits. 2
13. Write a short note on propagation in 'Black Pepper'. 2
14. What do you mean by 'Carbonation' ? Give an example of carbonated product. 2

## SECTION C

15. Calculate the cost for raising 1 Ha Mango plantation based on the following : 3
- (i) Spacing 9 m × 9 m
- (ii) Cost of mango graft @ Rs. 210/- per graft
- (iii) Cost of digging and re-filling of pit @ Rs. 75/- per pit
- (iv) Cost of making shade @ Rs. 30/- per plant.
16. Write the flow chart of process of Sweet Mango Chutney. 3
17. Write the objectives of training and pruning in cashew. 3

18. Explain the scope and importance of Post-Harvest Technology of fruits, vegetables and nuts. 3
19. With suitable diagram explain the 'Cold Storage' method of preservation of fruits and vegetables. 3
20. Briefly explain Nursery techniques in arecanut. 3

*Or*

20. Write the symptoms and management of Koleroga in arecanut.

#### **SECTION D**

21. Explain construction and working of 'Zero Energy Chamber' for short term storage of vegetables and fruits. 4
22. Explain stone grafting in mango with reference to : 4
- (i) Raising of root stock.
- (ii) Selection of scion stick and grafting.
23. List out the characteristics of good coconut mother palm. 4

*Or*

23. Explain the commercial cultivation of coconut with reference to :
- (i) Pit size and spacing
- (ii) Control of Rhinoceros beetle
- (iii) Irrigation.