

**POST GRADUATE DIPLOMA IN
PLANTATION MANAGEMENT (PGDPM)**

Term-End Examination 00400

June, 2012

MAM-002 : CROP PRODUCTION TECHNOLOGY

Time : 3 hours

Maximum Marks : 100

Note : Answer any ten questions, all carry equal marks.

1. (a) Fill in the blanks with appropriate words. 10
- (i) Botanical name of small cardamom is _____ .
 - (ii) The economic life span of rubber is around _____ years.
 - (iii) Plant protection measures in coffee plantation accounts for _____ percent of the total cost of cultivation.
 - (iv) Botanical name of Assam tea is _____ .
 - (v) Native habitat of natural rubber is _____ .

- (b) State *True* or *False* in the following statements.
- (i) Productivity level of pepper in India is higher compared to other producing countries.
 - (ii) polyclonal seedlings are better for planting rubber in marginal areas.
 - (iii) Cherry coffee is prepared by dry method, from ripe Arabica berries.
 - (iv) India holds the No 1 position in natural rubber productivity.
 - (v) Coconut is propagated through vegetative means also.
2. (a) Name two promising varieties of crops in each of the following : 5
- (i) Black pepper
 - (ii) Rubber
 - (iii) Robusta coffee
 - (iv) Coconut
 - (v) Cashew.
- (b) Name the under mentioned operations : 5
- (i) Removing old and dead shoots of cardamom once in a year.
 - (ii) Forming a level plucking surface and keeping adequate foliage in Tea bushes.
 - (iii) Agents added to the diluted spray fluids to improve adhesion to the targets in rubber estates for disease control.

- (iv) Removing new growths in primary branches in coffee bushes to promote aeration.
- (v) Technique to rejuvenate unproductive of cashew trees.

3. State in 2 - 3 sentences. What you know about the following ? **2x5=10**

- (a) Integrated pest Management
- (b) Marketable tea analysis
- (c) Ortet selection
- (d) Conversion period for organic coffee
- (e) organic recycling in cashew.

4. Comment on the following practices. **2½x4=10**

- (a) Seed treatment of cardamom before sowing.
- (b) Subsoil irrigation in Tea.
- (c) Aerial spraying and its advantages in Rubber.
- (d) Collection and storage of coconut seed nuts.

5. (a) State briefly how are the following prepared for propagation. **2½x2=5**

- (i) Budded stumps in Rubber.
- (ii) Single node cuttings in coffee.

(b) Indicate the fertilizer recommendations and method of application in the following crops. **2½x2=5**

- (i) Coffee
- (ii) Cashew

6. Mention the causal organism, nature of damage symptoms of the following pests/diseases. $2\frac{1}{2} \times 4 = 10$
- (a) Azhukal disease of cardamom
 - (b) Shot hole borer of tea,
 - (c) Coffee Berry borer,
 - (d) Slugs and Snails in Rubber.
7. (a) Write short answers to the following : $2\frac{1}{2} \times 2 = 5$
- (i) Plucking standards for tea leaves
 - (ii) Selection criteria for mother trees of cashew.
- (b) What is "pollarding" of shade trees ? What purpose does it serve and how is it carried out in tea and coffee estates ? 5
8. (a) State briefly what is Biclinal seed stock of Tea and write on establishment of seed gardens. 5
- (b) Mention two common fungal diseases of coconut and suggest control measures. 5
9. Discuss the concept of Good Agriculture practices (GAP). State the principles and approaches of GAP and explain the standards required with special reference to spices. 10
10. State the principles of manuring in Tea plantations. Enlist the secondary nutrients and explain the role of Magnesium. Briefly state the different factors influencing nutrient utilization in Tea. 10

11. What are the sustainable coffees and what are their unique features ? Describe briefly the organic coffee production scenario in India. 10
12. Mention the major leaf diseases of Rubber in the Traditional Region. State the causal organism, symptoms and explain the control measures of abnormal leaf fall. 10
13. Write short notes on *any two* of the following : 10
- (a) Plant Growth Regulators in Tea.
 - (b) Soft wood grafting in cashew.
 - (c) Organic Tea in India.
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