

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

Term-End Examination

December, 2010

**MAM-003 : POST HARVEST MANAGEMENT AND
VALUE ADDITION**

Time : 3 hours

Maximum Marks : 100

Note : Attempt any ten questions. All carry equal marks.

1. (a) Define the following terms : 5x1=5
- (i) GAP
 - (ii) Harvest maturity
 - (iii) Mace
 - (iv) Geitonogamy
 - (v) Protogyny
- (b) Explain the harvest maturity of tree spices. 5
2. (a) Enlist the primary processing techniques of black pepper and white pepper and explain any of the two. 2+3=5
- (b) Describe the harvesting and curing of Large Cardamom. 5

3. Write short notes on *any two* : 2x5=10
- (a) Encapsulation
 - (b) Super Critical Fluid Extraction (SCFE)
 - (c) Cryogrinding
4. (a) Enlist the factors influencing quality of spices and explain any of the two. 1+2+2=5
- (b) What are the two types of air heaters used in tea manufacture ? 5
5. Describe the Japanese style of manufacturing of green tea. 10
6. (a) State briefly factors influencing tapping and latex production in rubber. 5
- (b) Explain briefly Low Frequency Tapping (LFT) of rubber. State latex recovery and need for yield stimulation in LFT. 5
7. (a) What is Tapping Panel Dryness (TPD) ? 4
- (b) What are the criteria for tree selection and marking for tapping in budded trees ? 3
- (c) What is the active ingredient of Ethephon ? Explain its mode of action. 3
8. Explain the methods used for concentration of rubber latex in India. 10

9. (a) What is the impact of storing natural rubber in adverse conditions on its properties ? 7
- (b) How PRI is influenced by storage ? 3
10. (a) What is the objective of drying of tea ? Enlist the driers and explain any one. 2+1+2=5
- (b) Why batch fermentation is carried out in orthodox tea manufacture ? Enlist the factors affecting fermentation. 2½+2½=5
11. (a) Define the following terms : 5x1=5
- (i) Cherry coffee
- (ii) Mycotoxins
- (iii) Parchment coffee
- (iv) Polished coffee
- (v) Black Beans
- (b) Enlist the different ways of removing the mucilage present on freshly pulped parchment coffee and explain any of the two. 1+2+2=5
12. (a) What are Decafs' ? What are the standard methods for decaffeination ? 3
- (b) List the Fair trade principles required for Fair trade certification in coffee. 2
- (c) Name the major groups of polyphenolic compounds in young tea shoots. 1
- (d) What is organic coffee ? 4

13. (a) Fill in the blanks :
- (i) Defective drying of copra leads to production of _____, _____ and _____. 3
 - (ii) Grading and garbling of Indian coffee is based on the _____ of the beans and _____. 2
- (b) What are the uses of clove oil ? 5
14. (a) How coconut is harvested from its trees ? 5
- (b) What is copra ? Differentiate between milling copra and ball copra. 5
15. (a) State the features of raw Cashewnut. 5
- (b) What are the physical properties of Cashew Kernels considered for grading ? 5
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