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**POST GRADUATE DIPLOMA IN
PLANTATION MANAGEMENT**

Term-End Examination

June, 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. Distinguish between : 5x2=10
 - (a) Small cardamom and Large cardamom,
 - (b) 'Macha' (pan) tea and 'Sencha' tea,
 - (c) Pale latex crepe and Estate brown crepe,
 - (d) Milling copra and ball copra
 - (e) Washed coffee and cherry coffee

2. Give short answers in 50 words : 5x2=10
 - (a) HACCP standards for quality regulation in spices,
 - (b) Harvest index in black pepper for different uses
 - (c) 'Kona coffee'
 - (d) Tea seed oil
 - (e) Coir geo-textiles

3. (a) Mention characteristics and uses of three value added products of small cardamom. 5
(b) Define quality of spices. State briefly its importance and quality regulations in produced spices. 5
4. (a) Explain briefly Low Frequency Tapping (LFT) of rubber. State latex recovery and need for yield stimulation in this method. 5
(b) State briefly factors influencing tapping efficiency and latex production in rubber. 5
5. (a) Fill in the blanks : 4x1=4
(i) The best period to open tapping channels (panels) on new trees is _____ and _____ months in India.
(ii) Generally arabica coffee is produced by the process of _____ method.
(iii) The scientific name of Large cardamom is _____.
- (b) Give name of the following : 3x2=6
(i) Two grades of pepper
(ii) Two hullers for milling cherry coffee
(iii) Two grades of cashew kernel.
6. (a) State *True* or *False* : 4x1=4
(i) Cardamom flowers and sets fruits at all elevations.

- (ii) Standards for tapping are identical for seed propagated and budded trees of rubber.
 - (iii) In coconut male and female flowers are borne on different inflorescences.
 - (iv) Freshly harvested coffee berries for parchment coffee should be processed immediately.
- (b) State briefly : 3x2=6.
- (i) Withering percentage of tea leaf.
 - (ii) Virgin coconut oil
 - (iii) CNSL (Cashew nut shell liquid)
7. (a) State briefly scope of value addition in tea- List out five value added products. 5
- (b) Describe with a cross sectional diagram, features of cashewnut. 5
8. (a) State briefly keeping quality of tea. 5
- (b) Explain briefly the importance of hygiene in Tea factory. 5
9. (a) Give a short account of coconut shell products. Give examples. 5
- (b) Briefly state processing and uses of Nutmeg. 5

10. (a) Describe briefly the role and function of packaging in quality maintenance of cashew. 5
- (b) Discuss the impacts of storage over long periods of rubber products and indicate physical and chemical changes. 5
11. What are Malabar coffees ? Name any three Indian speciality coffees and briefly describe processing of monsooned Malabar coffees. 10
12. Discuss the need for product diversification and value addition in coconut. Give a few examples and explain method of preparation of dessicated coconut and Nata-de-coco. 10
13. Briefly describe the major reactions/reasons for quality deterioration of cashew kernels. List out quality improvement programmes for maintenance of kernel quality. 10
14. Write short notes on *any two* : 10
- (a) Low Frequency Tapping (LFT)
- (b) Value addition in spices
- (c) Quality parameters of Black tea.