

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

Term-End Examination

December, 2012

00360

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

Time : 3 hours

Maximum Marks : 100

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

1. (a) Define the following : 1x5=5
- (i) Withering percent in Tea;
 - (ii) Spice Adulterants;
 - (iii) Speciality coffees in the global context;
 - (iv) Rubber tapping;
 - (v) Rubbery copra.
- (b) Fill in the blanks : 1x5=5
- (i) _____ is the world's largest producer and consumer of commercial tea.
 - (ii) Flowering and fertilisation in black pepper normally start in the month of _____.
 - (iii) The chemical name of Ethepon used as stimulant is _____.

- (iv) The average yield of cardamom in Kerala is _____ kg/ha.
- (v) As per gillus group of fungi produce a toxic product called_____.

2. What effect/function does each of the following bring about ? 5x2=10

- (a) Drying of fermented leaves in CTC tea manufacture.
- (b) Cryogrinding of black pepper for value addition.
- (c) Intensive tapping in rubber plantations.
- (d) Conditioning of dried parchment coffee.
- (e) Seasoning of harvested coconuts.

3. Comment briefly on the following :

- (a) Indian spice Logo and Spice House Certificate. 5x2=10
- (b) TF: TR Ratio for black tea.
- (c) "Heat is the energy of tea quality." Why ?
- (d) Green Book Guide lines.
- (e) W 240 Grade cashew kernel.

4. Write briefly on : 4x2½=10

- (a) Microbial contamination of spices.
- (b) Speciality coffees.
- (c) Crop collection in rubber.
- (d) Ball copra making.

5. (a) Mention the proper climatic and field elevation requirements for optimum growth of small cardamom ? 3
- (b) State the stage of harvest of black pepper for production of white pepper and canned pepper. 3
- (c) Briefly state the Quality Regulations in Primary Processed Spices and HACCP standards. 4
6. Write short Notes on *any two* : 2x5=10
- (a) On farm Processing of coffee berries.
- (b) Rain guarding in Rubber.
- (c) Coconut Trading.
7. (a) Discuss the role and need for value addition with special reference to spices. 2x5=10
- (b) Enlist the value added products of small cardamom and explain how cardamom oil is prepared commercially.
8. (a) Describe in detail how is tea produced by CTC method, graded, stored and packed ? 7+3=10
- (b) State the factors influencing keeping quality of tea.
9. Explain briefly how ripe coffee berries are prepared for wet processing for Parchment coffee. Give a flow chart of different stages of wet processing. 10

10. (a) Mention the different factors involved in quality deterioration of cashew kernels. 3
- (b) List out the improvement programmes employed, for quality maintenance of processed kernels. 3
- (c) State the process of packaging of processed cashew kernels. 4
11. Discuss the impacts of storage of processed rubber over long period. Briefly explain the optimum conditions and method of storage for sheet and crepe rubbers. 10
12. (a) What are the products from coconut shell ? And state the important uses of any one product. 5
- (b) How is toddy and Neera produced from coconut ? Mention the composition toddy and state it uses. 5
13. (a) Explain briefly the qualitative aspects of raw cashew nuts for processing. List out the general criteria for selecting good rawnuts and explain any one test employed in the processing factory. 5
- (b) Enumerate the major by products from cashew and state of uses of CNSL. 5
-