

## **Syllabus (CBCT-II from FET)**

### **FP 450: PLANTATION PRODUCTS AND SPICES TECHNOLOGY**

Production and processing of Tea leaves: Black tea, Green tea and Oolong tea. chemistry of tea manufacturing and tea quality; tea aroma precursors; tea flavour; tea grades; storing of tea Instant tea, tea concentrates, decaffeinated tea, flavoured tea; herbal tea.

Production and processing of coffee cherries by wet and dry methods to obtain coffee beans, grinding, storage and preparation of brew, Soluble /Instant coffee, Use of chicory in coffee, decaffeinated coffee.

Production, processing and chemical composition of cocoa beans. Cocoa Processes: Cleaning, roasting, alkalization, cracking and fanning, Nib grinding for cocoa liquor, cocoa butter and cocoa powder. Manufacturing process for chocolate: Ingredients, Mixing, Refining, Conching, Tempering, Moulding etc. to obtain chocolate slabs, chocolate bars. Enrobed and other confectionary products.

Composition, Structure and characteristics of cashew nut and other dry fruits.

Spices: Types, production, pre-harvest and post-harvest problems in processing, properties, drying, storage and packaging, health benefits; flavouring components; spice powder and paste: their processing, quality, storage; spice based food additives; volatiles, essential oils and oleoresins: their characteristics, extraction procedure and utilization.

#### **Textbooks**

1. Tea Production and Processing. B. Banerjee, Oxford & IBH Pub. Co., 1<sup>st</sup> Edition, 1993.
2. Coffee Technology. M. Sivetz, AVI publishing Co., 1<sup>st</sup> Edition, 1979.
3. Minor Spices and Condiments: Crop Management and Post Harvest Technology. J.S.Purthi, ICAR publication, 1<sup>st</sup> Edition, 2001.
4. Major Spices of India: Crop Management and Post Harvest Technology. J.S.Purthi, ICAR publication, 1<sup>st</sup> Edition, 2003.
5. Tree Nuts: Production, Processing, Products. J. G. Woodroof, AVI Pub. Co., 1<sup>st</sup> Edition, 1979.

#### **References:**

1. Handbook of Fruit Science and Technology: Production, Composition, Storage, and Processing. D. K. Salunkhe, S. S. Kadam, CRC Press, 1<sup>st</sup> Edition, 1995.
2. Global Advances in Tea Science. N.K.Jain, Aravali Books International, 1<sup>st</sup> Edition, 1999.
3. Coffee: Botany, Biochemistry and Production of Beans and Beverage. M.N. Clifford and K.C.Willson, AVI publishing Co., 1<sup>st</sup> Edition, 1985