

## **Syllabus for Mid Term examination June 2020**

### **FST-221-Fruits, Vegetables & Plantation Products Processing Technology (2018 Batch)**

#### **UNIT-1**

Current status of production and processing of fruits and vegetables, Composition and nutritive value of fruits and vegetables; Techniques of processing and preservation of fruits and vegetables: canning and bottling, drying and dehydration. UHT processing: Aseptic processing and packaging.

#### **UNIT-2**

Juice extraction and clarification, preparation of syrups, and chemical preservation. Products processing: squashes, cordials, nectars. Principle of jel formation - Jam, jelly, marmalade and defects in manufacturing, fortified fruit drinks, Candies; chutneys; fruit juice concentrates and powders; Tomato product: sauce and ketchup, Cut fruits and vegetable, fruit toffee.

#### **UNIT-3**

Preservation by fermentation- Definition, Advantages, disadvantages, Types of fermentation, equipments. Pickles making and Vinegar; Fruit wine. Irradiation applications for fruits and Vegetable. Minimally processed fruits and vegetables, Emerging technologies for fruits and vegetables processing: Hurdle technology, Ozone application and ultrasound.

#### **UNIT-4**

Composition, Production and processing of Tealeaves: Black tea, Green tea and Oolong tea. Instant tea. Production and processing of coffee cherries by wet and dry methods to obtain coffee beans, grinding, storage and preparation of brew.

## **Syllabus for Mid Term examination June 2020**

### **FST-221-Fruits and Vegetable Processing Technology (2015 Batch)**

#### **UNIT-1**

Fruits and vegetables as living products: Current status of production and processing of fruits and vegetables, Composition and nutritive value of fruits and vegetables.

#### **UNIT-2**

Introduction to dehydration techniques of Fruits and Vegetables: Tray drying, vacuum drying, foam mat drying, fluidized bed drying, spray drying, freeze drying, microwave drying, heat pump drying, osmotic dehydration. Physical and chemical changes in food during drying and dehydration. Quality of dried products.

#### **UNIT-3**

Principles of Thermal processing- review. Process of blanching, Canning and bottling, Effect of canning and bottling on nutritive value, spoilage of canned foods, detection and control. UHT processing: Aseptic processing and packaging.

#### **UNIT-4**

Juice extraction and clarification, preparation of syrups, and chemical preservation Products processing: squashes, cordials, nectars. Principle of jel formation - Jam, jelly, marmalade and defects in manufacturing, fortified fruit drinks, Candies; chutneys; fruit juice concentrates and powders; Tomato product: sauce and ketchup, Cut fruits and vegetable, fruit toffee,

#### **UNIT-5**

Preservation by fermentation- Definition, Advantages, disadvantages, Types of fermentation, equipments. Pickles making and Vinegar; Fruit wine. Irradiation applications for fruits and Vegetable.

Minimally processed fruits and vegetables, Emerging technologies for fruits and vegetables processing technologies: Hurdle technology, Ozone application and ultrasound.