

## 2.11 =40192 TECHNOLOGY OF FOOD PRESERVATION

### **G R O U P A (1<sup>ST</sup> half )**

#### **\CANNING**

General Canning technique

Can lacquer, can filling solution, Can construction, mechanical defects

Effect of temperature, pH, altitude on canning of various food

Evaluation of process time by graphical (Bigelow method) and formula method

Can defects, aseptic canning

#### **DRYING**

Concept of drying, drying kinetics (no problem required)

Different type of driers – solar, tray, spray, fluidised bed drying, tunnel drier, drum drier (working principles with schematic diagram only)

Concept of critical moisture, equilibrium moisture content

Concept of evaporation and evaporation equipments

Concept osmotic dehydration, CA MA storage of fruits and vegetables

#### **REFRIGERATION &FREEZE DRYING**

Different phases of freeze drying, Time-temperature relation

Quality aspect of freeze dried food product, TTT, PPP

Types of refrigerant & use

Types of freezer – plate, blast, vacuum, immersion, cryogenic freezing (principles, schematic diagram & use only)

Working principles of refrigerated van, wagon and cold storage and their use

### **G R O U P – B (2nd half)**

#### **PRESERVATION BY FERMENTATION**

Introduction to fermentation (general view)

Different fermented food & their quality aspect

Factors effecting fermentation

Intermediate moisture food

#### **FOOD IRRADIATION**

Principles, measurement unit

Different food product

## REFERENCEBOOKS

1. Food Process Engineering / D.R. Heldman & R.P. Singh / AVI
2. Food Processing and Preservation / G. Subbulakshmi & S.A. Uddipi / New Age International
3. Elements of Food Engineering / J.C. Harper / AVI
4. The Technology of Food preservation / N.W Desrosier / AVI
5. Laboratory manual for Food Canners & Processors 2 vols. / NCA / AVI
6. Principles of Food Science Vol 2 / Karek & Luno Marcel Delker
7. Food Science & Technology / Magnus Pyke / John Murray, London
8. Food Science / B. Srilaxmi / New Age International
9. Foods Facts and Principles / N. Shakuntala Manay & M. Shadaksharaswamy / New age International

