CH. BANSILAL GOVT. POLYTECHNIC, BHIWANI

Name of Faculty: Kanchan (T), Rajesh Kumari (P)

Discipline: Food Technology

Year: 1st

Subject: Basics of Food Technology

Lesson Plan Duration: 35 weeks

Work Load (Theory/Practical) per week (in hours): Theory: 02, Practical: 02

Week	Lecture day	Theory/Practical
1st	1 2 3	Introduction to Food Technology, syllabus and evaluation scheme. (T) Introduction: Food Technology as a Discipline and Career in Food Technology. (T) Precautions used when working in Food Laboratory. (P)
2nd	1 2 3	Activities of Food Technologists. (T) Characteristics of food industry. (T) Introduction to laboratory instruments and equipments. (P)
3rd	1 2 3	Components of Food Industry and International activities. (T) Carbohydrates: Properties and Significance. (T) File examination. (P)
4th	1 2 3	Proteins, Fats and Oils: Properties and Significance. (T) Additional Food Constituents: Properties and Significance. (T) Visit to Milk Chilling Centre. (P)
5th	1 2 3	Nutritive aspects of Carbohydrates, Proteins and Fats. (T) Nutritive aspects of Vitamins, Minerals, Fibre and Water. (T) Visit to Milk Chilling Centre (written). (P)
6th	1 2 3	Common Unit Operations: Material Handling, Cleaning, Separating, Mixing, Pumping. (T) Heat Exchanging, Evaporation and Drying. (T) File Examination. (P)
7th	1 2 3	Packaging and Energy Conservation. (T) Quality Factors: Appearance. (T) Demonstration to Roller Flour Mill. (P)
8th	1 2 3	Textural Factors. (T) Flavour and additional quality factors. (T) File examination. (P)
9th	1 2 3	Major Causes of Food Deterioration. (T) Principles of Food Preservation. (T) Demonstration to Oil Mill. (P)
10th	1 2 3	Control of microorganisms and enzymes. (T) Degrees of Preservation. (T) File examination. (P)

11th	1 2 3	Heat Treatments and Heat Transfer. (T) Heating Before or After Packaging. (T) Visit to Bakery. (P)
12th	1 2 3	Distinction between Refrigeration and Freezing. (T) Refrigeration and Cold Storage. (T) Visit to Bakery (written). (P)
13th	1 2 3	Freezing and Frozen Storage. (T) Food Dehydration. (T) File Examination. (P)
14th	1 2 3	Food Concentration. (T) Intermediate-Moisture Foods. (T) Demonstration to Food Packaging Industry. (P)
15th	1 2 3	Food Irradiation. (T) Microwave Heating. (T) File Examination. (P)
16th	1 2 3	Ohmic Heating. (T) Fermentation: Definition. (T) Visit to Carbonated Beverage Industry. (P)
17th	1 2 3	Benefits of Fermentation. (T) Genetic Engineering. (T) Visit to Carbonated Beverage Industry (written). (P)
18th	1 2 3	Fluid Milk and its derivatives. (T) Ice Cream and related products. (T) File examination. (P)
19th	1 2 3	Cheese. (T) Meat and Meat Products. (T) Demonstration to Fruit and Vegetable Processing Industry. (P)
20th	1 2 3	Poultry: Processing operation and nutritive value. (T) Egg: Formation, Structure, Composition and Quality Factors. (T) File examination. (P)
21st	1 2 3	Fish Procurement, Marine Fish and Shellfish. (T) Fish By-Products and Contamination in Fish. (T) Visit to Quick Service Restaurants. (P)
22nd	1 2 3	Sources and Functional Properties of Fats and Oils. (T) Products made from Fats and Oils. (T) Visit to Quick Service Restaurants (written). (P)
23rd	1 2 3	Tests on Fats and Oils. (T) Introduction to Cereal Grains. (T) File examination. (P)
24th	1 2 3	Principles of Baking. (T) Legumes and Oilseeds. (T) Demonstration to Warehousing and Logistics Companies. (P)
25th	1 2 3	Structural Features of Fruits and Vegetables. (T) Harvesting and Processing of Fruits and Vegetables. (T) File examination. (P)

26th	1 2 3	Preparation method of Fruit Juices. (T) Carbonated Non Alcoholic Beverages: Introduction and Ingredient used. (T) Demonstration to Nutraceutical Industry. (P)
27th	1 2 3	Alcoholic Beverages: Beer and Wine. (T) Coffee and Tea. (T) File examination. (P)
28th	1 2 3	Ingredients used in Confectionery and Chocolate Products. (T) Chocolate and Cocoa Products. (T) Videos of Food Industries. (P)
29th	1 2 3	Confectionery Manufacturing Practices. (T) Introduction to Food Packaging. (T) Videos of Food Industries. (P)
30th	1 2 3	Type of containers. (T) Food Packaging Materials and Package Testing. (T) File examination. (P)
31st	1 2 3	Properties and requirements of processing Water. (T) Properties of Waste Water. (T) Videos of Food Industries. (P)
32nd	1 2 3	Waste Water Treatment. (T) Food Safety, Hazards, and Risks. (T) Videos of Food Industries. (P)
33rd	1 2 3	Effects of processing and storage on microbial safety. (T) HACCP as a method to prevent food borne illness. (T) Visit to relevant Food industry. (P)
34th	1 2 3	Introduction to Governmental Regulations of Food. (T) Food and Nutrition Labelling. (T) Revision. (P)
35th	1 2 3	Hunger and World Food Needs. (T) Roles of Technology to combat world hunger. (T) Revision. (P)