

GOVERNMENT POLYTECHNIC, MANDI ADAMPUR

Name of Faculty: **MOHIT JINDAL**

Discipline: **FOOD TECHNOLOGY**

Semester: **3rd**

Subject: **Principle of food processing and preservation**

Lesson Plan Duration: **15 Weeks (July 2018-Nov. 2018)**

Work load (Theory/Practical) per week (in hours): Theory: 03, Practical: 02

Week	Lecture day	Theory
1 st	1	Introduction to Syllabus and Evaluation Scheme.
	2	Status of Indian food industry with emphasis on State of Haryana.
	3	Definition of food – food technology, food science.
	4	Introduction to Laboratory and its equipments. (Practical)
2 nd	5	Food preservation and food engineering – basic considerations.
	6	Importance of food processing and preservation.
	7	Classification of foods on the basis of shelf life, pH and origin.
	8	Peeling of fruits and vegetables (Practical)
3 rd	9	Different types of food spoilage viz. microbiological,
	10	Bio-chemical, chemical Spoilage.
	11	Physical and their effects on food quality.
	12	Preparation of brine and syrup (Practical)
4 th	13	Principles of food preservation. Revision of unit 1 st .
	14	Principles of Salt and sugar preservation.
	15	Intermediate Moisture Food (IMF).
	16	Blanching of seasonal fruits and vegetables (Practical)
5 th	17	Processing flow chart of jam, jelly and marmalade.
	18	Techniques of pickling. Revision of unit 2 nd .
	19	Class test for unit 1 st and 2 nd .
	20	Dehydration of fruits & vegetables (Practical)
6 th	21	Introduction to preservation by low temperature.
	22	Refrigeration and refrigeration load.
	23	Different refrigeration systems.
	24	Preparation of fruit bars (Practical)
7 th	25	Slow and fast freezing.
	26	Freezing process.
	27	Types of freezers.
	28	Freezing of seasonal vegetables, meat and fish products (Practical).
8 th	29	Advantages and disadvantages of freezing.
	30	Storage and thawing of frozen food.
	31	Revision of unit 3 rd .
	32	Preparation of Jam (Practical)
	33	Introduction to high temperature preservation.

9 th	34	Definition, methods and advantages and disadvantages of pasteurization.
	35	Definition, methods and advantages and disadvantages of sterilization.
	36	Preparation of Jelly (Practical)
10 th	37	Definition, methods and advantages and disadvantages of canning.
	38	Revision of unit 4 th .
	39	Introduction to moisture removal.
	40	Preparation of squash (Practical)
11 th	41	Evaporation.
	42	Concentration.
	43	Drying and dehydration.
	44	Preparation of sauerkraut (Practical)
12 th	45	Types of dryers.
	46	Advantages and disadvantages of drying.
	47	Selection of dryers.
	48	Pickle preparation. (Practical)
13 th	49	Revision of unit 5 th .
	50	Introduction to Food Additives including Chemical Preservatives.
	51	Classification of food additives.
	52	Pickle preparation (lime pickle). (Practical)
14 th	53	Functions of food additives.
	54	Uses of food additives. Revision of unit 6 th .
	55	Introduction to preservation of food by radiations.
	56	Preparation of Jam (Mixed fruit) (Practical)
15 th	57	Irradiation of foods, Radiation doses for spices, onions, potatoes and meat.
	58	Concept of microwave heating effect on food quality.
	59	Revision of unit 7 th .
	60	Preparation of tutti frutti (Practical)