

Name of the Subject: <b>Technology of Food – I (Cereal, Pulses, Oilseeds and Extrusion Technology)</b>													
Course Code: <b>FPT</b>			Semester: <b>Fifth</b>					Credits: <b>3C</b>					
Duration: <b>6 Semesters</b>			Maximum Marks: <b>100</b>					Subject Code: <b>FPT/T501</b>					
<b>Objective:</b>													
For proper preservation & processing of food, it is essential to acquire the knowledge of bacteria & their property, genetics and also the concepts of preventing the growth of bacteria by means of sterilization & pasteurisation. The subject will primarily introduce the students to the essential concepts of understanding microbes, morphology, preparation of culture, genetics, nutrition, methods of prevention from contamination of food.													
Teaching Scheme			Examination Scheme										
Theory			End Semester Examination										
Tutorial	<b>Nil</b>		Internal Scheme	Group	Unit	Objective Questions (Only MCQ/Fill in the Blanks/ True or False)				Subjective Questions			
Total Contact Periods	<b>17 Weeks or 51 Hours</b>		30	A		To Be Set	To be Answered	Marks Per Question	Total Marks	To Be Set	To be Answered	Marks Per Question	Total Marks
	Class Test	Contact Periods			1	3				2	Any 5 at least 2 from each group	Ten	10 x 5 = 50
	<b>3</b>	<b>48</b>		B	2	6	Any 20	One	1 x 20 = 20	2			
					3	6				2			
					4	6				2			
					5	4				2			
<b>Detail Contents</b>												<b>Total Periods</b>	
<b>Unit – 1</b>	<b>Introduction to Cereals</b>  Proximate composition of cereals, different types of cereals, general physiochemical structure of cereals, Storage of cereals, infestation control and use of pesticides, Toxic factors in cereals										5		
<b>Unit – 2</b>	<b>Cereals Processing</b> Drying of cereals – solar, Ultra high temp. drying, Ultra low temp. drying, Milling of rice and wheat, Parboiling of rice, Classification of wheat, flour; difference between <i>atta</i> , <i>suji</i> and flour. Milling of corn and barley <b>Cereal Products</b> Different rice products- fermented rice products, aromatic rice, rice flakes, puffed rice; break first cereals products, instant rice, macaroni product.										12		
<b>Unit – 3</b>	<b>Pulses and Legumes</b>  Proximate composition of pulses and legumes, classification of pulses (kharif, rabi), Toxic constituents of pulses, processing and milling of pulses, different types of pulse product, Processed soyabean products including fermented soya product.										8		

<p><b>Unit – 4</b></p>	<p><b>Extruded Foods</b></p> <p>Objectives and importance of extrusion in food product development; Components and functions of an extruder; Classification of extruder; Advantages and disadvantages of different types of extrusion; Pre and post extrusion treatments; Manufacturing process of extruded products; Application of extrusion technologies in food industries. Texturized vegetable protein product (Soya nugget)</p>	<p>8</p>
<p><b>Unit - 5</b></p>	<p><b>Fats and oils processing</b></p> <p>Introduction to oilseed, classification of oilseed, Extraction of fats and oil seeds –, rendering, pressing, solvent extraction; Processing of oils – degumming, refining, bleaching, deodorization, fractionation, winterization, hydrogenation, esterification, inter-esterification &amp; emulsification ; Extraction, refining and processing of rice bran oil.</p> <p><b>Preparation of fats and oils based products</b></p> <p>Natural vegetable fat (margarine; vanaspati) and animal fat (butter, lard):- source, composition, properties and industrial applications; Plastic fat in bakery and confectionary; Preparation of shortenings and salad oil.</p> <p>preparation of protein concentrate from mustard ,coconut seed and soya protein isolate Standard and quality control of fats and fatty foods; By-products of fat/oil processing industries.</p>	<p>15</p>
	<p><b>Reference Books</b></p> <ol style="list-style-type: none"> <li>1. Foods Facts &amp; Principles / N. Shakuntala Manay &amp; M. Shadaksharaswamy / New Age International</li> <li>2. Cereal Food Technology/NIIR Board, Asia pacific Business press.</li> <li>3. Food Analysis &amp; Practice / Y. Pamaranz / AVI</li> <li>4. Post harvest technology of cereals, pulses and oilseeds, A. Chakraverty/ oxford IBH pub. Co. pvt. Ltd.</li> <li>5. Food Science / B. Srilaxmi / New Age international</li> <li>6. Principles of Food Science / Karek &amp; L.M. Delker</li> <li>7. Advances in Pulse Production Technology, Jeswani and Baldev, ICAR</li> <li>8. Fundamentals of food engineering- D.G.Rao, PHI Learning</li> </ol>	

Name of the Subject: **Technology of Food – II (Fish, Meat & Poultry)**Course Code: **FPT**Semester: **Fifth**Credits: **3C**Duration: **6 Semesters**Maximum Marks: **100**Subject Code: **FPT/T502****Objective:**

After successful completion of this paper each student should be able to:

- An understanding of market organization, economic importance (\$ value) and product range of the industries studied and where appropriate, environmental or ecological market issues;
- Process Flow Diagrams for products studied, and thereby describe the process and in particular be able to give a technical justification for the steps in the process;
- Raw material characteristics, formulations, handling and processing procedures with quality, yield and cost of product produced and in most cases safety;
- The processes studied and identify the control points for quality and in most cases safety. For these control points you should be able to recommend appropriate parameters

Teaching Scheme			Examination Scheme																		
Theory	<b>3Hours / Week</b>		Internal Scheme	End Semester Examination																	
Tutorial	<b>Nil</b>			Group	Unit	Objective Questions (Only MCQ/Fill in the Blanks/ True or False)				Subjective Questions											
Total Contact Periods	<b>17 Weeks or 51 Hours</b>		<b>30</b>			To Be Set	To be Answered	Marks Per Question	Total Marks	To Be Set	To be Answered	Marks Per Question	Total Marks								
	Class Test	Contact Periods		A	1									9	Any 20	One	1 x 20 = 20	4	Any 5 at least 1 from each group	Ten	10 x 5 = 50
	<b>3</b>	<b>48</b>		B	2									9							
<b>Detail Contents</b>											<b>Total Periods</b>										

<p><b>Unit – 1</b></p>	<p><b>Fish</b>            Classification of fresh water fish and marine fish; Fish as raw material for processing and its biochemical composition. Factors affecting the quality of product and post harvest losses. Physical, chemical, microbiological and sensory changes during storage, Commercial handling, storage and transport of raw fish, Proximate composition of fish, Different spoilage &amp; quality assessment Preservation of fish by canning, freezing &amp; drying; salting, Smoking &amp; curing of fish, Manufacture of fish protein concentrates, fish oil, fish paste &amp; fish sauce, fish liver oil, fish meal, IQF prawn, fermented fish product and other important byproducts; Quality control of processed fish</p>	<p><b>17</b></p>
<p><b>Unit – 2</b></p>	<p><b>Meat</b>            Slaughtering technique of animal; Chemical and nutritional composition of meat ; The eating quality of meat - color, water holding capacity (WHC) and juiciness, texture and tenderness, odour and taste, Post mortem changes of meat. Meat processing- comminution, emulsification, curing, smoking, cooking, ageing and tenderization; Meat products - meat emulsion, fermented meats, sausages, ham, bacon and comminuted meat products; Meat analogs; Meat storage and preservation- by temperature control (refrigeration, freezing, thermal processing), by moisture control (dehydration, freeze drying, curing, IMF meat), by microbial inhibition (chemical preservation, ionizing radiation); Packaging of meat products. Meat production, processing and consumption trends; Meat plant sanitation and waste disposal; By-products from meat industries and their utilization.</p>	<p><b>17</b></p>
<p><b>Unit – 3</b></p>	<p><b>Poultry</b>            Classification of poultry meat; Composition and nutritional value of poultry meat ; Processing and preservation of poultry meat, spoilage and control; By-product utilization.            Egg and egg products- Structure, composition and functions of eggs; Abnormalities in eggs; Functions of eggs in food products; Inspection and grading for egg quality; Preservation and safe handling of eggs; egg quality assessment, Spoilage and control ; Coagulation of eggs, egg foams, egg powder and egg based products;</p>	<p><b>14</b></p>
	<p><b>Reference Books</b></p> <ol style="list-style-type: none"> <li>1. Foods Facts &amp; Principles / N. Shakuntala Manay &amp; M. Shadaksharaswamy / New Age International</li> <li>2. Food Science / N.N. Potter</li> <li>3. Meat as Food (Vol. 1,2)/Cole &amp; Lawrie</li> <li>4. Food Science / B. Srilaxmi / New Age international</li> <li>5. Fish as food (Vol 1,2,3,4)/ George Borgstorm</li> <li>6. Meat processing and preservation with packaging Technology, NIIR Board, Asia pacific Business press.</li> <li>7. Meat product processing, EIRI Board</li> </ol>	



Name of the Subject: <b>Technology of Food – III (Fruits, Vegetables, Species &amp; Beverage Technology)</b>													
Course Code: <b>FPT</b>			Semester: <b>Fifth</b>					Credits: <b>3C</b>					
Duration: <b>6 Semesters</b>			Maximum Marks: <b>100</b>					Subject Code: <b>FPT/T503</b>					
<b>Objective:</b>													
For proper preservation & processing of food, it is essential to acquire the knowledge of bacteria & their property, genetics and also the concepts of preventing the growth of bacteria by means of sterilization & pasteurisation. The subject will primarily introduce the students to the essential concepts of understanding microbes, morphology, preparation of culture, genetics, nutrition, methods of prevention from contamination of food.													
Teaching Scheme			Examination Scheme										
Theory	<b>3Hours / Week</b>		Internal Scheme	End Semester Examination									
Tutorial	<b>Nil</b>			Group	Unit	Objective Questions (Only MCQ/Fill in the Blanks/ True or False)				Subjective Questions			
Total Contact Periods	<b>17 Weeks or 51 Hours</b>		30	A	To Be Set	To be Answered	Marks Per Question	Total Marks	To Be Set	To be Answered	Marks Per Question	Total Marks	
Class Test	Contact Periods	<b>3</b>			<b>48</b>	1	3	Any 20	One	1 x 20 = 20	2	Any 5 at least 2 from each group	Ten
				2		6	2						
				3		6	2						
B	4	6		2									
	5	4	2										
<b>Detail Contents</b>											<b>Total Periods</b>		
<b>Unit – 1</b>	<b>Fruits and Vegetables Storage</b> Different types of fruits and vegetable and their chemical composition, physical & chemical treatment for increasing post harvest shelf life, storage & handling – CA, MA storage, Cold storage  Different microbial groups associated with fruits & vegetables, microbial change during storage, Effects of enzymes on quality of fruit & vegetable storage, methods for preventing microbial attack on fruit & vegetable during harvesting & storage.										8		
<b>Unit – 2</b>	<b>Fruits and Vegetables Products</b> Preparation of jam, jelly, marmalade, tomato product, potato product, Drying and canning of fruits and vegetables, machineries used in fruits and vegetables processing, Analysis and quality control of Fruits and Vegetables Products.  <b>Fermentation and picking</b> Fermentation methods of fruits & vegetables, fermented products, quality changes during fermentation, fermented pickles, pickling methods and storage & preservation of fermented & pickled products.										15		
<b>Unit – 3</b>	<b>Fruits Juice Beverages</b> Fruit squash, nectar, cordials, carbonated beverages, juice concentrate, juice powder manufacturing process and their properties, proximate composition, Analysis and quality control of beverage products.										10		

<b>Unit – 4</b>	<p><b>Non alcoholic Beverage</b></p> <p>Proximate composition of tea, coffee &amp; cocoa; different grades of tea and coffee; tea &amp; coffee processing, different tea &amp; coffee products, preparation of health drinks. Analysis and quality control of tea, coffee &amp; cocoa products.</p>	10
<b>Unit - 5</b>	<p><b>Introduction to Spices</b></p> <p>Importance of spices, classification of spices, Technology of spices powder production Different types of condiment and herb products, preservation and packaging of spice powder.</p>	5
	<p>Reference Books</p> <ol style="list-style-type: none"> <li>1. Processing of fruits &amp; vegetables/Giridharilal &amp; Siddappa</li> <li>2. Technology of Food Preservation/ Desrosier &amp; Desrosier</li> <li>3. Foods Facts &amp; Principles / N. Shakuntala Manay &amp; M. Shadaksharaswamy / New Age International</li> <li>4. Food Science / N.N. Potter</li> <li>5. Food Chemistry / L. H. Meyer</li> <li>6. Food Analysis &amp; Practice / Y. Pamaranz / AVI</li> <li>7. Hand book on quality analysis on Fruits &amp; vegetables / Rangana</li> <li>8. Chocolate, Cocoa &amp; Confectionary / B.W. Minifie</li> <li>9. Food Science / B. Srilaxmi / New Age international</li> <li>10. Principles of Food Science / Karek &amp; L.M. Delker</li> <li>11. Fruits &amp; vegetables processing (Vol. 1,2,3,4) / Suman Bhatti</li> <li>12. Food Analysis / R. Lees / C.R.C Press Ltd.</li> </ol>	

Name of the Subject: <b>Dairy Technology</b>													
Course Code: <b>FPT</b>			Semester: <b>Fifth</b>					Credits: <b>3C</b>					
Duration: <b>6 Semesters</b>			Maximum Marks: <b>100</b>					Subject Code: <b>FPT/T504</b>					
<b>Objective:</b>													
This paper imparts hands-on-training/Experiential learning on Processing of Milk & Milk Products in a commercial environment to sharpen their technical as well as managerial skills thereby enhancing the professional confidence and to provide an opportunity to develop a set of skills such as leadership, teamwork, interpersonal communication, analytical problem solving, entrepreneurial/business skills which are not gained in a class room environment.													
Teaching Scheme			Examination Scheme										
Theory	3Hours / Week		End Semester Examination										
Tutorial	Nil		Internal Scheme	Group	Unit	Objective Questions (Only MCQ/Fill in the Blanks/ True or False)				Subjective Questions			
Total Contact Periods	17 Weeks or 51 Hours		30	A		To Be Set	To be Answered	Marks Per Question	Total Marks	To Be Set	To be Answered	Marks Per Question	Total Marks
	Class Test	Contact Periods			1	3			1 x 20	2	Any 5 at least 2 from each group	Ten	10 x 5 = 50
	3	48		B	2	3	Any 20	One	= 20	2			
					3	8				2			
					4	7				2			
					5	4				2			
Detail Contents												Total Periods	
Unit – 1	<b>Introduction</b> <b>Introduction to Milk</b> Definition, composition, White revolution, Present milk industry scenario in India and its future, factors affecting composition of milk; energy value of milk; handling, transportation and reception of milk; Varieties and grading of milk. <b>Physico-Chemical Properties of Milk</b> Density, boiling and freezing point, refractive index, Acidity and pH, viscosity, surface tension <b>Microbiology of Milk</b> Detection of E.coli in milk, microbes present in milk, inhibitors in milk. Quality control of milk and milk products including various analytical technique										6		
	<b>Utilization of Equipments in Dairy Industries</b> Heat exchangers (Pasteurizer, Vacreator, Refrigeration and cooling, Chillers, Evaporator and dryers,										8		

<b>Unit – 2</b>	Humidifiers), Homogenizer, Filters, Clarifiers, Milk separators, Butter churners, Butter extruder, Ice-cream churners, Ice-Cream freezers, Ghee Vat, Cheese Vat, Paneer equipments, <b>Cleaning and Sanitizing of Dairy Equipment</b> CIP System	
<b>Unit – 3</b>	<b>Special Milk</b> Toned milk, Double toned milk, Flavoured Milk & Sterilized milk – Manufacturing flow sheets <b>Condensed &amp; Evaporated Milk</b> Manufacturing flow sheets of evaporated milk, condensed milk <b>Dried Milk Products</b> Methods of milk drying (Drum & Spray Drying), manufacturing flow sheets of whole milk and skim milk powder by drum & spray drying; manufacturing flow sheets – whey powder, ice-cream mix powder, infant milk powder & chhana powder, Khoya product. <b>Other Milk</b> Synthetic milk , Soya milk and Soya milk product - Manufacturing flow sheets	<b>14</b>
<b>Unit – 4</b>	<b>Frozen Milk Products</b> Manufacturing process of Ice Cream, Softy & Kulfi <b>Coagulated Milk Products</b> Classification of cheese, manufacturing process of cheddar,cottage cheese, mozzarella cheese, manufacturing process of Chhana & Paneer <b>Fermented Milk Products</b> Concepts of starter culture, types of starter culture used in dairy industries, Manufacturing process of Dahi, Yoghurt, Butter & Ghee	<b>14</b>
<b>Unit - 5</b>	<b>Dairy Industries Waste &amp; By- products Utilization</b> Status, scope and utilization of dairy by- products in India; Physico chemical characteristic of whey, butter milk; Whey processing, beverages of whey; Butter milk processing, beverage of butter milk, Casein, industrial and food grade lactose	<b>6</b>
	<b>Reference Book</b> 1. Foods Facts & Principles / N. Shakuntala Manay & M. Shadaksharaswamy / New Age International 2. Food Science / N.N. Potter 3. Outlines of Dairy technology/ Sukumar De 4. Dairy Technology/Warner 5. Dairy Processings & Food products / Lampert	

Name of the Subject: <b>Bakery &amp; Confectionary Technology</b>													
Course Code: <b>FPT</b>			Semester: <b>Fifth</b>					Credits: <b>3C</b>					
Duration: <b>6 Semesters</b>			Maximum Marks: <b>100</b>					Subject Code: <b>FPT/T505</b>					
Objective: For proper preservation & processing of food, it is essential to acquire the knowledge of bacteria & their property, genetics and also the concepts of preventing the growth of bacteria by means of sterilization & pasteurisation. The subject will primarily introduce the students to the essential concepts of understanding microbes, morphology, preparation of culture, genetics, nutrition, methods of prevention from contamination of food.													
Teaching Scheme			Examination Scheme										
Theory	<b>3Hours / Week</b>		Internal Scheme	End Semester Examination									
Tutorial	<b>Nil</b>			Group	Unit	Objective Questions (Only MCQ/Fill in the Blanks/ True or False)				Subjective Questions			
Total Contact Periods	<b>17 Weeks or 51 Hours</b>		30	A		To Be Set	To be Answered	Marks Per Question	Total Marks	To Be Set	To be Answered	Marks Per Question	Total Marks
	Class Test	Contact Periods			1	3	Any 20	One	1 x 20 = 20	2	Any 5 at least 2 from each group	Ten	10 x 5 = 50
	<b>3</b>	<b>48</b>		2	6								
				3	6								
				4	6								
			5	4									
<b>Detail Contents</b>												<b>Total Periods</b>	
<b>Unit – 1</b>	<p><b>Ingredients for Baking</b> Proximate composition of wheat , types of wheat, types and grades of flours, flour process, chemistry of flour, testing of wheat and flour for baking quality, Type &amp; Mechanism of Gluten development.</p> <p>Major &amp; minor ingredients used in baking (product wise) and their role in baking,</p> <p>Different baking ingredients and their role in baking - leavening agents (D.R.C, diastatic activity) , Shortening agents, emulsifiers ,antioxidants ,improver ,dough conditioner</p> <p>Quality of water used and its function in baking, impurities of water and their effect in quality of baked products.</p> <p>FSSAI/PFA limit for additives in bakery product.</p>										8		
<b>Unit – 2</b>	<p><b>Baking Techniques</b> Bulk handling of ingredients, Process parameters, Various dough and their use, Fermentation and proofing, Mechanism of Heat transfer in baking, time, temperature humidity effect in baking, cooling and packaging of baked products.</p>										6		
	<p><b>Baking Equipments</b> Types, working principle &amp;, application of -Dough mixer, dough moulding, dough divider,proofer,baking oven,cooler,slicer .</p>										10		

<b>Unit – 3</b>	Machines & equipment for batch and continuous processing of bakery products.	
<b>Unit – 4</b>	<p><b>Product of Baking</b></p> <p>Production of bread, biscuits, cake, Pastry ,cookies, crackers , pasta, noodles, pizza and their quality aspects, defects of baked products and preventive measures. Snack food product</p> <p>Packaging of bakery products. Canned bakery products. Freezing of bakery product.</p>	14
<b>Unit - 5</b>	<p><b>Confectionary Technology</b></p> <p>Definition of Confectionary , Icing Technology, wafer manufacture, Fondant and Fudge, Manufacture of chocolate, production of chocolate mass, chocolate candy, chocolate based confectionary product , Milk based confectionary products, Different Sugar boiled stage ,Sugar confectionaries , Sweet candy.</p>	10
	<p>Reference Books</p> <ol style="list-style-type: none"> <li>1. Bakery &amp; Confectionary Technology –By S.A.Matz.</li> <li>2. Chocolate, Cocoa, Confectionary – By Minifie B.W.</li> <li>3. Bakery Technology and Engineering –By S.A.Matz.</li> <li>4. Equipments for Bakers –By S.A.Matz.</li> <li>5. Cookies &amp; Cracker Technology–By S.A.Matz.</li> <li>6. Basic Baking- By S.C Dubey.</li> <li>7. Textbook of Bakery and Confectionary – By Yogambal, PHI</li> </ol>	

Name of the Subject: <b>Food Analysis &amp; Quality Control Laboratory - I</b>			
Course Code: <b>FPT</b>		Semester: <b>Fifth</b>	
Duration: <b>6 Semesters</b>		Credits: <b>2C</b>	
Objective:		Maximum Marks: <b>100</b>	
		Subject Code: <b>FPT/P506</b>	
Teaching Scheme		Examination Scheme	
Practical	<b>4 Hrs/Week</b>	<b>Internal Scheme</b>	<b>External Scheme</b>
Tutorial	<b>Nil</b>	Continuous Internal Assessment of <b>50 marks</b> is to be carried out by the teachers throughout the Second Year First Semester. Distribution of marks: Performance of Job – 35, Notebook – 15.	External Assessment of 50 marks shall be held at the end of the Second Year First Semester on the entire syllabus. One job per student from any one of the jobs done is to be performed. Job is to be set by lottery system. Distribution of marks: On Spot Job – 25, Viva-voce – 25.
Total Periods	<b>15 Weeks or 60 Hrs</b>		
Sl.No.	Detail Contents		
1.	Analysis of jam, jelly (benzoate,		
2.	Analysis of fruit juice and beverage product (acidity		
3.	Analysis of raw milk (Garber test ,phosphatage test, milk protein, milk sugar, MBRT Test)		
4.	Analysis of milk product quality		
5.	Analysis of wheat flour ( Moisture, ash, gluten content, sedimentation value, D.R.C for bio leavening agent yeast)		
6.	Analysis of bread, cake, biscuit and cookies		
7.	Analysis of meat and fish product		
8.	Analysis of soymilk and soymilk product.		

Name of the Subject: <b>Food Processing Laboratory - I</b>			
Course Code: <b>FPT</b>		Semester: <b>Fifth</b>	
Duration: <b>6 Semesters</b>		Credits: <b>2C</b>	
		Maximum Marks: <b>100</b>	
Subject Code: <b>FPT/P507</b>			
Objective:			
Teaching Scheme		Examination Scheme	
Practical	<b>4 Hrs/Week</b>	<b>Internal Scheme</b>	<b>External Scheme</b>
Tutorial	<b>Nil</b>	Continuous Internal Assessment of <b>50 marks</b> is to be carried out by the teachers throughout the Second Year First Semester. Distribution of marks: Performance of Job – 35, Notebook – 15.	External Assessment of 50 marks shall be held at the end of the Second Year First Semester on the entire syllabus. One job per student from any one of the jobs done is to be performed. Job is to be set by lottery system. Distribution of marks: On Spot Job – 25, Viva-voce – 25.
Total Periods	<b>15 Weeks or 60 Hrs</b>		
Sl.No.	Detail Contents		
1.	Development of fruit squash & Nectar		
2.	Development of Fruit jelly, jam, synthetic jelly.		
3.	Preparation of mango pickle and mixed pickle		
4.	Development of flavoured ice cream		
5.	Development of curd and yogurt		
6.	Development of milk product (Paneer, Cheese, ghee, butter etc)		
7.	Development of flavoured soyamilk and soya milk product		
8.	Development of canned meat, fish, prawn product		
9.	Preparation of meat sausage		
10.	Development of smoked meat and fish product		

Name of the Subject: <b>Bakery &amp; Confectionary Technology Laboratory</b>			
Course Code: <b>FPT</b>		Semester: <b>Fifth</b>	
Credits: <b>2C</b>		Duration: <b>6 Semesters</b>	
Maximum Marks: <b>100</b>		Subject Code: <b>FPT/P508</b>	
Objective:			
Teaching Scheme		Examination Scheme	
Practical	<b>4 Hrs/Week</b>	<b>Internal Scheme</b>	<b>External Scheme</b>
Tutorial	<b>Nil</b>	Continuous Internal Assessment of <b>50 marks</b> is to be carried out by the teachers throughout the Second Year First Semester. Distribution of marks: Performance of Job – 35, Notebook – 15.	External Assessment of 50 marks shall be held at the end of the Second Year First Semester on the entire syllabus. One job per student from any one of the jobs done is to be performed. Job is to be set by lottery system. Distribution of marks: On Spot Job – 25, Viva-voce – 25.
Total Periods	<b>15 Weeks or 60 Hrs</b>		
Sl.No.	Detail Contents		
1.	Development of Bread		
2.	Development of Cake		
3.	Development of Biscuit		
4.	Development of Cookies		
5.	Development of Crackers		
6.	Development of bakery product like – pasta, noodles, pizza, patties, doughnuts, cream roll e.t.c		
7.	Development of extruded food		
8.	Development of confectionary item like – candy, chocolate e.t.c		
9.	Development of several icing product like pastry		
10.	Development of snack food		

Name of the Subject: <b>Food Processing Project Work - I</b>			
Course Code: <b>FPT</b>		Semester: <b>Fifth</b>	
Duration: <b>6 Semesters</b>		Credits: <b>2C</b>	
		Maximum Marks: <b>100</b>	
		Subject Code: <b>FPT/P509</b>	
<p><b>Objective: Project Work-I</b> is intended to provide opportunity for students to develop understanding of the interrelationship between different courses learnt in the entire diploma programme and to apply the knowledge gained in a way that enables them to develop &amp; demonstrate higher order skills. The basic objective of a project class would be to ignite the potential of students' creative ability by enabling them to develop something which has social relevance, aging, it should provide a taste of real life problem that a diploma-holder may encounter as a professional. The course further includes preparation of a Project Report which, among other things, consists of technical description of the project. The Report should be submitted in two copies, one to be retained in the library of the institute. The Report needs to be prepared in computer using Word and CADD software wherever necessary.</p> <p><b>Seminar on Project Work-I</b> is intended to provide opportunity for students to present the Project Work in front of a technical gathering with the help of different oral, aural and visual communication aids.</p>			
Teaching Scheme		Examination Scheme	
Practical	<b>4 Hrs/Week</b>	<b>Internal Scheme</b>	<b>External Scheme</b>
Tutorial	<b>Nil</b>	Continuous Internal Assessment of <b>50 marks</b> is to be carried out by the teachers throughout the Second Year First Semester. Distribution of marks: Performance of Job – 35, Notebook – 15.	External Assessment of 50 marks shall be held at the end of the Second Year First Semester on the entire syllabus. One job per student from any one of the jobs done is to be performed. Job is to be set by lottery system. Distribution of marks: On Spot Job – 25, Viva-voce – 25.
Total Periods	<b>15 Weeks or 60 Hrs</b>		
Sl.No.	Detail Contents		
1.	Processing of fruits and vegetables by canning, drying etc.		
2.	Quality enhancement in canned food.		
3.	Quality enhancement in fruits and vegetables food products.		
4.	Storage of Fruits, vegetables and cereals applying modern low cost food technology		
5.	Development of potato based product.		
6.	Quality enhancement in dairy food products		
7.	Development of different types of dairy product.		
8.	Up gradation of local bakery unit under quality perception.		
9.	Preparation of nutritionally enriched bread, cake and biscuit.		
10.	Development of varieties of confectionary product		

Name of the Subject: <b>Professional Practice – III (Industrial Visit &amp; Report Submission)</b>		
Course Code: <b>FPT</b>	Semester: <b>Fifth</b>	Credits: <b>1C</b>
Duration: <b>6 Semesters</b>	Maximum Marks: <b>50</b>	Subject Code: <b>FPT/P510</b>
Objective:		
Teaching Scheme		Examination Scheme
<b>Term Work</b>	<b>2 Hrs/Week</b>	<b>Term Work</b> (Internal Scheme)
<b>Tutorial</b>	<b>Nil</b>	Continuous Internal Assessment of 50 marks is to be carried out by the teachers throughout the Second Year First Semester. Distribution of marks: Performance of Job – 35, Assignments – 15.
Total Contact Periods	<b>15 Weeks or 30 Hrs</b>	
Sl.No.	Detail Contents	
	Visit to food processing industry and submission of report based on plant layout and operation	