



**ISLAMIC UNIVERSITY
OF SCIENCE AND TECHNOLOGY, AWANTIPORA, KASHMIR
SYLLABUS FOR B TECH LATERAL ENTRY FOOD TECHNOLOGY**

CORE FOOD TECHNOLOGY

Carbohydrates, Proteins, Fats and Oils, Additional Food Constituents, Nutritive Aspects of Food Constituents, Food and Energy, Additional Roles of Carbohydrates, Proteins, and Fats in Nutrition, Protein Quality, Bioavailability of Nutrients, Vitamins, Minerals, Fiber, Water, Stability of Nutrients, Diet and Chronic Disease, Food Deterioration and its Control, Shelf Life and Dating of Foods, Major Causes of Food Deterioration, Some Principles of Food Preservation, Control of Microorganisms, Control of Enzymes and Other Factors, Heat Preservation and Processing, Degrees of Preservation, Selecting Heat Treatments, Heat Resistance of Microorganisms, Heat Transfer, Protective Effects of Food Constituents, Inoculated Pack Studies, Different Temperature-Time Combinations, Heating Before or After Packaging, Government Regulations. Cold Preservation and Processing, Distinction Between Refrigeration and Freezing, Refrigeration and Cool Storage, Freezing and Frozen Storage, Some Additional Developments. Food Dehydration and Concentration, Food Dehydration, Food Concentration, Intermediate-Moisture Foods. Fermentation and Other Uses of Microorganisms, Fermentations, Microorganisms as Direct Foods, Genetic Engineering. Milk and Milk Products, Fluid Milk and Some of its Derivatives, Ice Cream and Related Products, Cheese, Reduced Fat Dairy Products. Meat, Poultry, and Eggs, Meat and Meat Products, Poultry, Eggs. Vegetables and Fruits General Properties, Gross Composition, Structural Features, Activities of Living Systems, Harvesting and Processing of Vegetables, Harvesting and Processing of Fruits, Fruit Juices, Biotechnology. Principles of Food Packaging, Introduction, Types of Containers, Food-Packaging Materials and Forms, Package Testing, Packages with Special Features, Safety of Food Packaging, Environmental Considerations.

PHYSICS

Physical World and Measurement, Work, Power, and Energy, Kinematics, Properties of Bulk Matter Bulk modulus, Gravitation Kepler's law of Planetary Motion The Universal Law of Gravitation, Motion of System of Particles and Rigid Body, Static and Kinetic Friction, Laws of Motion, Critical Velocity, Speed Velocity, Oscillation and Waves.

MATHEMATICS

Sets and Functions: Relations & Functions, Trigonometric Functions. Algebra: Complex Numbers and Quadratic Equations, Linear Inequalities, Binomial Theorem. Coordinate Geometry: Calculus: Straight Lines, Conic Sections. Statistics and Probability.

Soet - Umar

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