

Discipline : Agriculture, Food Technology, Dairy Technology & Fisheries

Sl. No.	Academic Course	Semester	Subject under the Semester	Topic of BIS Lecture	Time slot required	IS No.	IS Title
1	B.Sc in Agriculture/ B.Tech in Agriculture Engineering Academic Institutions: - ICAR Institutions - IIT Kharagpur	IV (B.Tech in Agriculture Engineering, ICAR institutions)	1.1 Crop Protection Management	1.1.1 Indian Standards on specifications and testing of: Crop protection equipment Pesticides	2 Sessions (1 Session =90 minutes)	IS 1970	Crop Protection Equipment – Hand - Operated Compression - Knapsack Sprayer – Specification
						IS 1971	Crop Protection Equipment – Hand - Operated Stirrup - Type Sprayer - Specification
						IS 3062	Crop Protection Equipment - Rocker Sprayer – Specification
						IS 3652	Crop Protection Equipment – Foot Sprayer - Specification
						IS 3906	Crop Protection Equipment – Hand-operated Knapsack Sprayer Piston Type
						IS 8480	Crop Protection Equipment - Glossary of Terms
						IS 9632	Code of Practice for Operation and Preventive Maintenance of Crop Protection Equipment
						IS 14459	Crop Protection Equipment - Battery Operated Rotary Atomiser Disc Type ULV sprayer - Specification
						IS 15918	Equipment for Crop Protection - Sprayers - Connection Threading
						IS 15919	Equipment for Crop Protection - Test Methods for Air-Assisted Sprayers for Bush and Tree Crops
						IS 15920	Equipment for Crop Protection - Sprayer Nozzles - Colour Coding for Identification
						IS 15921	Equipment for Crop Protection - Air - Assisted Sprayers - Dimensions of Nozzle Swivel Nuts
						IS 15923 (Part 1)	Equipment for Crop Protection - Drift Classification of Spraying Equipment Part 1 Classes
						There are 349 Indian Standards on different pesticides formulations	
			1.1.2 Indian Standards on Good Agricultural Practices	1 Session	IS 15930 :	Requirements for good agricultural practices - IndiaGap Part 1 crop base	
					IS 15930 :	Requirements for good agricultural practices - IndiaGap Part 3 Combinable Crop Base	
					IS 15930 :	Requirements for good agricultural practices - IndiaGap Part 4 tea base	
					IS 15930 :	Requirements for good agricultural practices - IndiaGap Part 5 coffee base	

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						IS 15930 : Part 7	Requirements for good agricultural practices - IndiaGap Part 7 poultry base
						IS 15930 : Part 8	Requirements for good agricultural practices - IndiaGap Part 8 cattle and sheep base
						IS 16550 : Part 1	Organic production system and labelling of organically produced products Part 1 crop based
		VI (B.Tech in Agriculture Engineering, ICAR institutions)	1.2 Farm Power and Machinery	1.2.1 Indian Standards on agricultural implements and machineries	1 Session	IS 4366 (Part 1)	Specification for Agricultural Tillage Discs Part 1 Concave Type
						IS 4366 (Part 2)	Specification for Agricultural Tillage Discs Part 2 Flat Type
						IS 7201 (Part 1)	Methods of Sampling for Agricultural Machinery and Equipment Part 1 Hand - Tools and Hand - Operated Animal Drawn Equipment
						IS 9217	Test Code for Agricultural Discs
						IS 10740	Recommendation for Operating Requirement for Power Take – Off Driven Implements
						IS 11270	Technical Requirements for Ring - Type Hitches for Agricultural Trailers
						IS 12239 (Part 6)	Agricultural Machinery – Safety Part 6 Sprayers and Liquid Fertilizer Distributors
						IS 17408 (Part 1)	Self - Propelled Agricultural Machinery - Assessment of Stability Part 1 Principles
						IS 17409 (Part 2)	Self - Propelled Agricultural Machinery - Assessment of Stability Part 2 Determination of Static Stability and Test Procedures
		VI (B.Tech in Agriculture Engineering, ICAR institutions)	1.3 Livestock Production and Management	1.3.1 Indian Standards on specification for animal feed and livestock management	1 Session	IS 1374	Poultry feeds – Specification
						IS 1664	Mineral mixtures for supplementing cattle feeds – Specification
						IS 1712	Specification for cottonseed oilcake as livestock feed ingredient
						IS 1713	Specification for decorticated groundnut oil cake as livestock feed ingredient
						IS 1942	Specification for bone – Meal as poultry feed supplement
						IS 1935	Specification for linseed oilcake as livestock feed ingredient

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						IS 1934	Sesamum oilcake as livestock feed ingredient – Specification
						IS 2052	Compounded feeds for cattle – Specification
						IS 2152	Maize gluten as livestock feed ingredient – Specification
						IS 2154	Coconut oilcake as livestock feed ingredient –Specification
						IS 2734	Code of practice for equine housing
						IS 2732	Code of practice for poultry housing
						IS 2733	Code of practice for sheep and goats housing
						IS 3059	Transport of monkeys by rail road air and sea –Code of practice
						IS 3161	Specification for gram chuni
						IS 3163	Specification for rice polish
						IS 3593	Specification for solvent – Extracted rice bran as livestock feed
						IS 3592	Specification for solvent extracted decorticated cottonseed oilcake (Meal) as livestock feed ingredient
						IS 5238	Transport of poultry – Code of practice
						IS 5236	Transport of Pigs by rail and road Code of Practice
						IS 5470	Dicalcium phosphate, animal feed grade - Specification
						IS 5672	Mineral mixtures for supplementing poultry feeds - Specification
						IS 7060	Specification for blood meal as poultry feed
						IS 7472	Specification for pig feeds
						IS 9703	Glossary of terms for animal feeds and feedingstuffs
						IS 13451	Urea molasses block as ruminant feed supplement – Specification
						IS 14904	Transport of livestock – Code of practice
						IS 15949	Fish - Meal – Vocabulary
		IV (B.Tech in	1.4 Manure, Fertilizer and	1.4.1 Indian standards on	2 Sessions	IS 16556	Municipal solid waste compost manure grade - Specification

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		Agriculture Engineering, ICAR institutions)	Agrochemicals	manure, fertilizer and agrochemicals		IS 16702	Vermicompost - Specification
						IS 294	Single superphosphate - Specification
						IS 826	Ammonium sulphate fertilizer grade - Specification
						IS 2764	Potassium sulphate fertilizer grade - Specification
						IS 2779	Potassium chloride Muriate Of Potash fertilizer grade - Specification
						IS 4830	Ammonium phosphate sulphate granular - Specification
						IS 6448	Diammonium phosphate - Specification
						IS 7131	Nitrophosphate Based Granulated Fertilizers
						IS 8249	Zinc sulphate heptahydrate agricultural grade - Specification
						IS 8359	Urea ammonium phosphate based fertilizers - Specification
						IS 8558	Specification for neem cake for manuring
						IS 9024	Specification for granulated fertilizer mixtures
						IS 12113	Specification for ferrous sulphate heptahydrate agricultural grade
						IS 13921	Chemed zinc Zn - EDTA agricultural grade - Specification
						IS 13922	Chelated iron Fe - EDTA agricultural grade - Specification
		IV (B.Tech in Agriculture Engineering, ICAR institutions)	1.5 Water Management including Micro-irrigation	1.5.1 Indian standards on irrigation equipment and systems	1 Session	IS 15848	Zinc sulphate monohydrate agricultural grade - Specification
						There are 349 Indian Standards on different pesticides formulations	
						IS 10799	Irrigation Equipment – Design Installation and Field Evaluation of Micro Irrigation Systems - Code of Practice
						IS 12232 (Part 1)	Irrigation Equipment – Rotating Sprinkler Part 1 design and Operational Requirements
						IS 12232 (Part 2)	Irrigation Equipment – Rotating Sprinkler Part 2 Test Method for Uniformity of Distribution
						IS 12785	Irrigation Equipment - Strainer - Type Filters - Specification

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						IS 12786	Irrigation Equipment - Polyethylene Pipes for Irrigation Laterals - Specification
						IS 13062	Irrigation Equipment and Systems - Evaluation of Field Irrigation Efficiencies - Guidelines
						IS 13487	Irrigation Equipment - Emitters - Specification
						IS 13488	Irrigation Equipment – Emitting Pipe Systems - Specification
						IS 14151 (Part 1)	Irrigation Equipment – Sprinkler Pipes - Specification Part 1 Polyethylene Pipes
						IS 14151 (Part 2)	Irrigation Equipment – Sprinkler Pipes - Specification Part 2 Quick Coupled Polyethylene Pipes and Fittings
						IS 14178	Pressurized Irrigation Equipment Terminology
						IS 14482	Irrigation Equipment - Polyethylene Micro Tubes for Drip Irrigation - Specification
						IS 14605	Irrigation Equipment – Micro Sprayers - Specification
						IS 14606	Irrigation Equipment - Media Filter
						IS 14606	Irrigation Equipment – Media Filters - Specification
						IS 14743	Irrigation Equipment - Hydrocyclone Filters - Specification
						IS 14792	Irrigation Equipment – Design Installation and Operation of Sprinkler Irrigation Systems – Code of Practice
						IS 17411 (Part 2)	Agricultural Irrigation Equipment - Filters for Micro-Irrigation Part 2 Strainer - Type Filters and Disc Filters
						IS 17425	Irrigation Equipment – Quick Coupled Polyethylene Pipes and Fittings for Sprinkler Irrigation Systems - Specification
				1.5.2 Indian standards on code of practice for irrigation and	1 Session	IS 9696	Code of Practice for Installation of Farm Drainage Tile or Pipe System
						IS 9979	Code for Design and Laying of Mineral Filters for Tile Drain System

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				drainage system		IS 10907	Code for Design of Farm Drainage Tile or Pipe System
						IS 11494	Code for Construction and Maintenance of Surface Farm Drainage Systems
						IS 11495	Code for Design of Surface Farm Drainage System
						IS 11538	Code of Practice for Design and Installation of Farm Drainage Pumping Plants
						IS 13939	Farm Drainage - Interceptor Drains for Steep Hill Slopes Under Plantation Crops - Guidelines for Laying
						IS 14632	Farm Drainage System - Performance Evaluation of Horizontal Subsurface Drainage – Guidelines
		VII (B.Tech in Agriculture Engineering, ICAR institutions)	1.6 Environmental Science and Engineering	1.6.1 Indian Standards on drinking water quality	2 Sessions	IS 14543	Packaged Drinking Water (Other Than Packaged Natural Mineral Water) - Specification
						IS 13428	Packaged Natural Mineral Water - Specification
						IS 10500	Drinking Water - Specification
2	B.Sc/B.Tech/M.Sc/ M.tech in Food Science and Technology (Allied Courses) Academic Institutions: - NIFTEM, Sonapat - CFTRI - ICAR Institutions - IIT Kharagpur	III (MSc, CFTRI)	2.1 Food Chemistry and Biochemistry	2.1.1 Important Indian Standards for analyzing proximate composition of food products	1 Session	IS/ISO 16634-2	Food Products Determination of the Total Nitrogen Content by Combustion According to the Dumas Principle and Calculation of the Crude Protein Content Cereals Pulses and Milled Cereal Products
						IS 16639	Infant formula and adult nutritionals - Determination of vitamin E and vitamin A by normal phase high performance liquid chromatography
						IS 16640	Infant formula and adult nutritionals - Determination of vitamin B12 by reversed phase high performance liquid chromatography RP - HPLC
						IS 16641	Infant formula - Determination of nucleotides by liquid chromatography

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						IS 16642	Infant formula and adult nutritionals - Determination of pantothenic acid by ultra-high performance liquid chromatography and tandem mass spectrometry method UHPLC - MS MS
						IS 16643	Food products - Determination of the glycaemic index GI and recommendation for food classification
						IS 16649	Infant formula and adult nutritionals - Determination of Myo - Inositol by liquid chromatography and pulsed amperometry
						IS 17176	Infant Formula and Adult Nutritionals Determination of Vitamin C by Ultra High Performance Liquid Chromatography with Ultraviolet Detection U HPLC-UV
						IS 17177	Infant formula and adult nutritionals - Determination of vitamin D by liquid chromatography - Mass spectrometry
						IS 17178	Food stuffs - Determination of water activity
						IS 17379	Infant Formula and Adult Nutritionals Determination of Total Iodine Inductively Coupled Plasma Mass Spectrometry ICP-MS
						IS 17668	Infant formula and adult nutritionals Determination of free and total choline and free and total carnitine Liquid chromatography tandem mass spectrometry HPLC-MSMS
						IS 17669	Infant formula and adult nutritionals Simultaneous determination of total vitamins B1 B2 B3 and B6 Enzymatic digestion and LC-MSMS
						IS 17670	Fortified milk powders infant formula and adult nutritionals Determination of total biotin by liquid chromatography coupled with immunoaffinity column clean-up extraction
						IS 17671	Infant formula and adult nutritionals Determination of beta-carotene lycopene and lutein by reversed-phase ultra-high performance liquid chromatography RP-UHPLC

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						IS/ISO 21466	Infant Formula and Adult Nutritionals Determination of Trans and Total cis trans Vitamin K1 Content Normal Phase HPLC
						IS 11062	Method for estimation of total dietary fibre in foodstuffs
						IS 5398	Methods for estimation of thiamine Vitamin B1 in foodstuffs
						IS 5399	Methods for estimation of riboflavin Vitamin B2 in foodstuffs
						IS 5400	Methods for estimation of nicotinic acid Niacin in foodstuffs
						IS 5835	Method for estimation of vitamin D in foodstuffs
						IS 5838	Methods for estimation of vitamin C in foodstuffs
						IS 5886	Methods for estimation of carotenes and vitamin A Retinol in foodstuffs
						IS 7219	Method for determination of protein in foods and feeds
						IS 7234	Method for estimation of folic acid in foodstuffs
						IS 7235	Method for estimation of tocopherols Vitamin E in foodstuffs
						IS 7481	Method for determination of protein efficiency ratio Per
						IS 7529	Method for estimation of vitamin B 12 in foodstuffs
						IS 7530	Method for estimation of pyridoxine Vitamin B6 in foodstuffs
						IS 7815	Method for estimation of amino acids in food
						IS 7997	Guide for tasting products of intense flavour
						IS 8077	Procedure for checking temperature of quick - Frozen foods
						IS 8168	Method for determination of available lysine in foods
						IS 9820	Method for estimation of biotin in foodstuffs
						IS 9840	Method for estimation of pantothenic acid in foodstuffs

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						IS 10226 (Part 1) / ISO 5498/ ISO 5498	Method for determination of crude fibre content in - food products Part 1 general method
						IS 10226 (Part 2)	Method for determination of crude fibre content in food products Part 2 modified scharrer method
						IS 5126	Sensory analysis – Vocabulary
						IS 15285	Sensory analysis - Methodology - Initiation and training of assessors in the detection and recognition of odours
						IS 15286	Sensory analysis - Methodology - Guidelines for the preparation of samples for which direct sensory analysis is not feasible
						IS 15315	Sensory analysis - Methodology - Flavour profile methods
						IS 15316	Sensory analysis - General guidance for the design of test rooms
						IS 15317	Sensory analysis - General guidelines for the selection training and monitoring of selected assessors and expert sensory assessors
						IS 17822	Sensory analysis Methodology A - not A Test
						IS 17823	Sensory Analysis Guidelines for Sensory Assessment of the Colour of Products
						IS 17824	Sensory analysis Methodology Triangle test
						IS 17825	Sensory analysis Methodology Method of investigating sensitivity of taste
						IS 17826	Sensory analysis Methodology Duo-trio Test
						IS 17827	Sensory Analysis Methodology General Guidance
						IS 17828	Sensory analysis Identification and selection of descriptors for establishing a sensory profile by a multidimensional approach
						IS 17829	Sensory analysis Methodology Paired Comparison Test
						IS 17830	Sensory analysis Methodology Ranking
						IS 17831	Sensory Analysis Methodology Texture Profile

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				2.1.2 Indian Standards for analyzing contaminants in food products	1 Session	IS 15642 (Part 1 and 2)	Quick methods for detection of adulterants contaminants in common food products
						IS 15733	Portable kit for quick detection of adulterants contaminants in common food products - Specification
						IS 16287	Foodstuffs - Determination of aflatoxin B1 , and the total content of aflatoxins B1 , B2 , G1 and G2 in cereals, nuts and derived products - High performance liquid chromatographic method
						IS 15937 / ISO 13493	Meat and meat products - Determination of chloramphenicol content - Method using liquid chromatography
		V B.Tech. (Food Technology and Management), NIFTEM	2.2 Food Microbiology	2.2.1 Indian Standards for analyzing microbiological safety of food products	2 Sessions	IS 5401 (Part 1 and part 2)	Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of coliforms: Part 1 colony count technique Part 2 most probable number technique
						IS 5402 (Part 1 and Part 2)	Microbiology of the food chain - Horizontal method for the enumeration of microorganisms- Part 1: Colony count at 30 C by the pour plate technique Part 2: Colony count at 30 C by the surface plating technique
						IS 5402 : Part 2	Microbiology of the food chain- Horizontal method for the enumeration of microorganisms -
						IS 5887 (Part 1 to 6)	Microbiology of food and animal feeding stuffs
						IS 10232	Microbiology of the Food Chain — Preparation of Test Samples, Initial Suspension and Decimal Dilutions for Microbiological Examination — General Rules for the Preparation of Initial Suspension and Decimal Dilutions
						IS 14988	Microbiology of the Food Chain — Horizontal Method for Detection and Enumeration of Listeria monocytogenes and of Listeria spp. Part 1 Detection Method

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						IS 16067 : Part 1	Microbiology of the Food Chain — Horizontal Method for the Enumeration of Beta-Glucuronidase-Positive Escherichia coli Part 1 Colony-Count Technique at 44°C Using Membranes and 5-Bromo-4-Chloro-3-Indolyl Beta-D-Glucuronide
						IS 16068	Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of mesophilic lactic acid bacteria - Colony Count technique at 30°C
						IS 16069 : Part 1	Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of yeasts and moulds: Part 1 colony count technique in products with water activity greater than 0.95
						IS 16069 : Part 2	Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of yeasts and moulds: Part 2 colony count technique in products with water activity less than or equal to 0.95
						IS 16122	Microbiology of food and animal feeding stuffs - General requirements and guidance for microbiological examinations
						IS 16424	Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of presumptive Escherichia coli - Most Probable Number technique
						IS 16425	Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of Clostridium perfringens - Colony Count technique
						IS 16426	Microbiology of food and animal feeding stuffs - Horizontal method for the detection of Escherichia coli O157
						IS 16427	Microbiology of food and animal feeding stuffs - Polymerase chain reaction (PCR) for the detection of food - Borne pathogens - Requirements for sample preparation for qualitative detection

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						IS 16428	Microbiology of food and animal feeding stuffs - Polymerase chain reaction (PCR) for the detection of food - Borne pathogens - Requirements for amplification and detection for qualitative methods
						IS 16429	Microbiology of food and animal feeding stuffs - Horizontal method for the detection of Shigella spp.
						IS 16431	Microbiology of food and animal feeding stuffs - Polymerase chain reaction (PCR) for the detection and quantification of food - Borne pathogens - Performance characteristics
						IS 16432	Microbiology of food and animal feeding stuffs - Polymerase chain reaction (PCR) for the detection of food - Borne pathogens - General requirements and definitions
						IS 16433	Microbiology of food and animal feeding stuffs - Real - Time polymerase chain reaction (PCR) for the detection of food - Borne pathogens - General requirements and definitions
						IS 16434	Microbiology of food and animal feeding stuffs - Horizontal method for the determination of low numbers of presumptive bacillus cereus - Most probable number technique and detection method
						IS 16965	Microbiology of Food and Animal Feed - Primary Production Stage - Sampling Techniques
						IS 16980	Microbiology of Food and Animal Feed - Preparation of Test Samples, Initial Suspension and Decimal Dilutions for Microbiological Examination - Specific Rules for the Preparation of Samples Taken at the Primary Production Stage
						IS 16987	Microbiology of Food and Animal Feed - Real Time Polymerase Chain Reaction (PCR) Based Method for the Detection of Food Borne Pathogens - Horizontal Method for the Detection of Shiga Toxin Producing Escherichia Coli (STEC) and the Determination of O157, O111, O26, O103 and O145 Serogroups

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						IS 17112	Microbiology of the food chain - Horizontal method for the detection and enumeration of enterobacteriaceae: Part 1 detection of enterobacteriaceae
						IS 17112 : Part 2	Microbiology of the food chain - Horizontal method for the detection and enumeration of enterobacteriaceae: Part 2 colony - Count technique
						IS 17113 : Part 1	Microbiology of the food chain - Method validation: Part 1 vocabulary
						IS 17113 : Part 2	Microbiology of the food chain - Method validation: Part 2 protocol for the validation of alternative (Proprietary) methods against a reference method
						IS 17383	Microbiology of Food, Animal Feed and Water - Preparation, Production, Storage and Performance Testing of Culture Media
						IS 17385	Microbiology of the Food Chain - Specific Requirements and Guidance for Proficiency Testing by Inter laboratory Comparison
						IS 17447	Microbiology of the Food Chain - Preparation of Test Samples, Initial Suspension and Decimal Dilutions for Microbiological Examination - Specific Rules for the Preparation of Miscellaneous Products
						IS 17448	Microbiology of the Food Chain - Preparation of Test Samples, Initial Suspension and Decimal Dilutions for Microbiological Examination - Specific Rules for the Preparation of Fish and Fishery Products
						IS 15990	Microbiology of food and animal feeding stuffs - Preparation of test samples, initial suspension and decimal dilutions for microbiological examination - Specific rules for the preparation of meat and meat products
			2.3 Food Quality, Safety and	2.3.1 Indian Standards on	2 Sessions	IS 2491	Food hygiene - General principles - Code of practice

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			Analysis	Food Safety Codes and FSMS		IS 15000	Hazard analysis and critical control point (HACCP) - Requirements for any organization in the food chain
						IS 15176	Food hygiene - Microbiological risk assessment - Principles and guidelines for the conduct
						IS 16019	Food retail management basic requirements
						IS 16020	Food safety management - Requirements for good hygiene practices
						IS 16021	Good manufacturing practices (GMP) - Requirements for organizations in the food processing sector
						IS 17453	Food Safety and Hygiene - Code of Practice for Food Businesses during Epidemic/Pandemic Situations with Specific Reference to COVID-19
						IS/ISO 22000	Food safety management systems - Requirements for any organization in the food chain
						IS/ISO/TS 22002-1	Prerequisite programmes on food safety: Part 1 food manufacturing
						IS/ISO/TS 22002-2	Prerequisite programmes on food safety: Part 2 catering
						IS/ISO/TS 22002-3	ISOTS 22002-3:2011 Prerequisite programmes on food safety Part 3: Farming
						IS/ISO/TS 22002-4	Prerequisite programmes on food safety: Part 4 food packaging manufacturing
						IS/ISO/TS 22003	Food safety management systems - Requirements for bodies providing audit and certification of food safety management systems
						IS/ISO 22005	Traceability in the feed and food chain - General principles and basic requirements for system design and implementation
						IS/ISO 22006	Quality management systems - Guidelines for the application of ISO 9001 : 2008 to crop production
		II M.Tech. (Food Supply Chain Management)	2.4 Food Packaging and Storage	2.4.1 Code for Storage of Agricultural Produce	2 Sessions	IS 7192	Guide for storage of citrus fruits
						IS 7730	Guide for storage of pears
						IS 7731	Guide for storage of peaches
						IS 9304	Guide for storage of mangoes
						IS 9311	Guide to storage of onions

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						IS 16119	Potatoes - Guidelines for storage in artificially ventilated stores
						IS 16120	Potatoes - Storage in the open (In Clamps)
						IS 6028	Green bananas - Guide to storage and transport
						IS 6669	Apples - Guide to cold storage
						IS 6670	Storage of potatoes - Guidelines
						IS 7191	Tomatoes - Guide to cold storage and refrigerated transport
						IS 7252	Fruits and vegetables - Physical conditions in cold stores - Definitions and measurement
						IS 9303	Guide for cold storage of table grapes
						IS 11966	Garlic - Cold storage
						IS 15691	Guidelines for storage and transportation of bamboo shoot
						IS 16118	Strawberries - Guide to cold storage
						IS 609	Improvement of Existing Structures Used or Intended to be Used for Food Grain Storage — Code of Practice
						IS 5503 : Part 1	General requirements for silos for grain storage: Part 1 constructional requirements
						IS 5503 : Part 2	General Requirements for Silos for Grain Storage Part 2 Grain Handling Equipment and Accessories
						IS 6151 : Part 1	Storage Management Code Part 1 Terminology
						IS 6151 :Part 2	Storage management code: Part 2 general care in handling and storage of agricultural produce and inputs
						IS 6151 :Part 3	Storage management code: Part 3 specific care in handling and storage of agricultural produce and inputs
						IS 7715	Method for testing suitability of bins for safe storage of food grains
						IS 8453	Code of practice for construction of polyethylene embedded earthen bins for bulk storage of foodgrains

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						IS 11396	Test methods for determination of storability (Safe Storage Life) of foodgrains
						IS 16144	Foodgrain storage godowns - Code of practice
						IS 7247 : Part 1	Code of practice for fumigation of agricultural produce: Part 1 methyl bromide
						IS 7247 : Part 3	Code of practice for fumigation of agricultural produce: Part 3 aluminium phosphide
						IS 7247 : Part 4	Code of practice for fumigation of agricultural produce: Part 4 ethylene dichloride and carbon tetrachloride mixture
						IS 7247 : Part 5	Code of practice for fumigation of agricultural produce: Part 5 general requirements
		VI B.Tech. (Food Technology and Management), NIFTEM	2.5 Meat, Fish and Poultry Product Technology	2.5.1 Indian Standards on specifications of animal products and their quality assessment	1 Session	IS 1723	Specification for pork
						IS 1743	Specification for mutton and goat meat canned in brine
						IS 1981	Animal casings grades and specification
						IS 1982	Ante - Mortem and Post – Mortem inspection of meat animals – Code of practice
						IS 2475	Specification for smoked bacon
						IS 2476	Specification for ham
						IS 3044	Specification for mutton and goat meat curried and canned
						IS 3060	Specification for pork sausages canned
						IS 3061	Specification for pork sausages fresh
						IS 4352	Specification for pork luncheon meat canned
						IS 4393	Basic requirement for an abattoir
						IS 4674	Specification for dressed chicken
						IS 4723	Specification for egg powder
						IS 4951	Specification for ham canned
						IS 10697	Specification for chicken canned in brine
						IS 11746	Specification for luncheon beet canned
						IS 11747	Specification for corned beef canned

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						IS 15937	Meat and meat products - Determination of chloramphenicol content - Method using liquid chromatography
						IS 4793	Whole pomfret - Frozen - Specification
						IS 14950	Fish - Dried and Dry - Salted - Specification
						IS 9808	Specification for fish protein concentrate
						IS 14515	Fish pickles - Specification
						IS 14520	Fish industry - Operational cleanliness and layout of market - Guidelines
		IV B.Tech. (Food Technology and Management), NIFTEM	2.6 Milk Processing Technology	2.6.1 Indian Standards on specifications of Dairy Products and their quality assessment	1 Session	IS 13688	Packaged pasteurized milk – Specification
						IS 4238	Sterilized milk – Specification
						IS 4709	Flavoured milk – Specification
						IS 1479 (Part 1)	Methods of test for dairy industry - Rapid examination of milk
						IS 1479 (Part 1)	Methods of test for dairy industry - Rapid examination of milk
						IS 1223	Apparatus for determination of milk fat by gerber method - Specification
						IS 1224 Part 1 and Part 2	Determination of fat by the gerber method Part 1 milk and Part 2 milk products
						IS 1479 (Part 1 to Part 5)	Methods of test for dairy industry - Part 1 rapid examination of milk Part 2 chemical analysis of milk Part 3 bacteriological analysis of milk Part 4 milk - Determination of freezing point - Thermistor cryoscope method Reference Method Part 5 methods of dairy plant control
						IS 3507	Methods of sampling and test for butter
						IS 3508	Methods of sampling and test for ghee Butterfat
						IS 3509	Method of sampling and test for cream
3	B. Tech/M.Tech in Dairy Technology and allied courses (Dairy Microbiology, Dairy	I B. Tech in Dairy Technology, NDRI	3.1 Market Milk	3.1.1 Indian Standard on packaged pasteurized milk and rapid	1 Session	IS 13688	Packaged pasteurized milk – Specification
						IS 4238	Sterilized milk – Specification

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	Microbiology, Dairy Chemistry etc.)			and rapid examination of milk		IS 4709	Flavoured milk – Specification
	Academic Institutions:					IS 1479 (Part 1)	Methods of test for dairy industry - Rapid examination of milk
		IV B. Tech in Dairy Technology, NDRI	3.2 Chemical Quality Assurance	3.2.1 Indian Standards for ensuring overall quality and safety of dairy products	2 Sessions	IS 1223	Apparatus for determination of milk fat by gerber method - Specification
						IS 1224 Part 1 and Part 2	Determination of fat by the gerber method Part 1 milk and Part 2 milk products
						IS 1479 (Part 1 to Part 5)	Methods of test for dairy industry - Part 1 rapid examination of milk Part 2 chemical analysis of milk Part 3 bacteriological analysis of milk Part 4 milk - Determination of freezing point - Thermistor cryoscope method Reference Method Part 5 methods of dairy plant control
						IS 3507	Methods of sampling and test for butter
						IS 3508	Methods of sampling and test for ghee Butterfat
						IS 3509	Method of sampling and test for cream
						IS 7768	Method for sensory evaluation of milk
						IS 7769	Method for sensory evaluation of table butter
						IS 7770	Method for sensory evaluation of ghee Clarified Butterfat
						IS 8479 (Part 1 and Part 2)	Method for determination of phosphatase activity in milk and milk products Part 1 routine method and Part 2 Reference Method
						IS 9070	Method for determination of fat in cheese by van gulik method
						IS 9967 (Part 1 to Part 3)	Milk and milk products - Determination of nitrate and nitrite contents Part 1 method using cadmium reduction and spectrometry Part 2 method using segmented flow analysis Routine Method Part 3 method using cadmium reduction and flow injection analysis with in - Line dialysis Routine Method

Sl. No.	Academic Course	Semester	Subject under the Semester	Topic of BIS Lecture	Time slot required	IS No.	IS Title
						IS 10029	Method for sensory evaluation of sweetened condensed milk
						IS 10030	Method for sensory evaluation of milk powder
						IS 10083	Method of test for determination of snf Solids - Not - Fat in milk by the use of the lactometer
						IS 10281	Method for sensory evaluation of processed cheese
						IS 11202	Dried milk - Determination of content of lactic acid and lactates
						IS 11546	Milk and milk products - Guidance on sampling
						IS 11622	Method for determination of total solids content in condensed milk
						IS 11623	Dried milk - Determination of moisture content Reference Method
						IS 11721	Dried milk and dried milk products - Determination of fat content - Gravimetric method Reference Method
						IS 11762	Evaporated milk and sweetened condensed milk - Determination of fat content - Gravimetric method Reference Method
						IS 11763	Cheese and processed cheese products - Determination of chloride content - Potentiometric titration method
						IS 11764	Sweetened condensed determination of sucrose milk - Content - Polarimetric method
						IS 11765	Dried milk - Determination of titratable acidity Reference Method First Revision
						IS 11766	Method for determination of titratable acidity in milk powder and similar products Routine Method
						IS 11888	Casiens and caseinates - Determination of contents of scorched particles and of extraneous matter
						IS 11917	Milk and milk products - Determination of nitrogen content - Kjeldahl principle and crude protein calculation
						IS 11918	Caseins and caseinates - Determination of pH Reference Method

Sl. No.	Academic Course	Semester	Subject under the Semester	Topic of BIS Lecture	Time slot required	IS No.	IS Title
						IS 11919	Method For Determination Of Fixed Ash In Caseins reference Method
						IS/ISO11919	Caseins - Determination of Fixed Ash Reference Method
						IS 11920	Caseins and caseinates - Determination of moisture content Reference Method
						IS 11962	Rennet caseins and caseinates - Determination of ash Reference Method
						IS 11963	Caseins and caseinates - Determination of lactose content - Photometric method
						IS 11964	Caseins - Determination of free acidity Reference Method
						IS 12333	Milk cream and evaporated milk - Determination of total solids content Reference Method
						IS 12756	Cheese and processed cheese products - Determination of total phosphorus content - Molecular absorption spectrometric method
						IS 12757	Cheese and processed cheese products - Determination of citric acid content - Enzymatic method
						IS 12758	Cheese and processed cheese products - Determination of fat content - Gravimetric method Reference Method
						IS 12759	Dried milk and dried milk products - Determination of insolubility index
						IS 12760	Milk and milk products - Determination of calcium sodium potassium and magnesium contents - Atomic absorption spectrometric method
						IS 12899	Dairy products - Yoghurt enumeration of specific lactic acid bacteria - Method of test
						IS 13500	Spray dried milk powders scorched particles - Determination
						IS 15346	Method for sensory evaluation of paneer chhana
						IS 15347	Malted milk food - Method for sensory evaluation
						IS 15348	Method for sensory evaluation of shrikhand
						IS 15349	Ice cream - Method for sensory evaluation

Sl. No.	Academic Course	Semester	Subject under the Semester	Topic of BIS Lecture	Time slot required	IS No.	IS Title
						IS 16072	Determination of moisture content in milk powder and similar products Routine Method
						IS 16195	Milk milk products and infant formulae - Guidelines for the quantitative determination of melamine and cyanuric acid by LC - MS MS
		II B. Tech in Dairy Technology, NDRI	3.3 Food Chemistry	3.3.1 Indian Standards on Quality Specifications of food products in various matrices	1 Session	Same as 2.1.1	
				3.3.2 Indian Standards for analyzing composition of and contaminants in food products	1 Session	Same as 2.1.2	
		V B. Tech in Dairy Technology, NDRI	3.4 Food and Industrial Microbiology	3.4.1 Indian Standards for analyzing microbiological safety of food products	2 Sessions	Same as 2.2.1	
		IV B. Tech in Dairy Technology, NDRI	3.5 Traditional dairy products	3.5.1 Indian Standards on quality specifications of traditional dairy products	1 Session	IS 5162	Specification for chhana
						IS 10484	Specification for paneer
						IS 13688	Packaged pasteurized milk – Specification
						IS 13689	Butter oil and anhydrous butter oil – Specification
						IS 13690	Butter – Specification
						IS 16326	Ghee – Specification
						IS 9617	Specification for dahi
						IS 4079	Specification for canned rasogolla
						IS 5550	Specification for burfi
						IS 9532	Specification for chakka and Shrikhand

Sl. No.	Academic Course	Semester	Subject under the Semester	Topic of BIS Lecture	Time slot required	IS No.	IS Title
						IS 10501	Specification for kulfi
						IS 11602	Specification for packed gulab jamuns
		I B. Tech in Dairy Technology, NDRI	3.6 Food Science	3.6.1 Indian Standards on Food Safety Codes and FSMS	2 Sessions	Same as 2.3.1	
4	B.Sc/M.Sc in Fishery Sciences Academic Institutions: - ICAR Institutions	IV B.Sc in Fishery Sciences, ICAR	4.1 Aquaculture (Inland & Mariculture)	4.1.1 Indian Standards on Good Aquaculture Practices	1 Session	IS 17281	Requirements for Good Aquaculture Practices India GAqP Shrimp Hatchery and Grow Out Farms
						IS 17282	Requirements for Good Aquaculture Practices India GAqP Striped Catfish (Pangasianodon hypophthalmus)
						IS 17283	Requirements for Good Aquaculture Practices India GAqP CARPS
						IS 17284	Requirements for Good Aquaculture Practices India GAqP for Freshwater Prawn Culture
						IS 17285	Good Aquaculture Practices for Cage Culture in Fresh Water
		III B.Sc in Fishery Sciences, ICAR	4.2 Fish nutrition and feed technology	4.2.1 Indian standards on fish feed	1 Session	IS 16150 (Part 1)	Fish Feed - Specification, Part 1 Carp Feed
						IS 16150 (Part 2)	Fish Feed - Specification, Part 2 Catfish Feed
						IS 16150 (Part 3)	Fish Feed - Specification, Part 3 Shrimp Feed
						IS 16150 (Part 4)	Fish Feed - Specification, Part 4 Freshwater Prawn Feed