

Annexure: “B”

Section “A”: Syllabus for CET in Agriculture Stream for 80 %

Subject	Course No.	Title	Credits
Agronomy	AGRO-111	Principles of Agronomy	1+1=2
	AGRO-112	Agricultural Meteorology	1+1=2
	AGRO-113	Introductory Agriculture (Ancient heritage, agricultural scenario and gender equity in Agriculture)	1+0=1
	AGRO-124	Water Management including Micro irrigation	2+1=3
	AGRO-235	Field Crops – (I) (<i>Kharif Crops</i>)	2+1=3
	AGRO-236	Practical Crop Production (I) (<i>Kharif Crops</i>)	0+1=1
	AGRO-247	Field Crops-(II) (Rabi Crops)	2+1=3
	AGRO-248	Practical Crop Production (II) (Rabi Crops)	0+1=1
	AGRO-359	Weed Management	1+1=2
	AGRO-3610	Farming Systems and Sustainable Agriculture	1+1=2
	AGRO-3611	Organic and Rainfed farming	1+1=2
Total			13+11=24
Botany	BOT-111	Environmental Science	1+1=2
	BOT-122	Principles of genetics	2+1=3
	BOT-233	Principles of Plant Breeding	2+1=3
	BOT-234	Crop Physiology	2+1=3
	BOT-245	Breeding of field and Horticultural crops	2+1=3
	BOT-356	Principles of Plant Biotechnology	2+1=3
	BOT-367	Principles of Seed Technology	2+1=3
Total			13+7=20
	SSAC-111	Introduction to Soil Science	2+1=3

Soil Science	SSAC-122	Soil Chemistry, Soil Fertility and Nutrient Management	2+1=3
	SSAC-243	Manures, Fertilizers and Agrochemicals	2+1=3
	SSAC-354	Biochemistry	2+1=3
Total			8+4=12
Plant Pathology	PATH-111	Introductory Plant Pathology	1+1=2
	MIBO-121	Agricultural Microbiology	2+1=3
	PATH-232	Principles of Plant Pathology	1+1=2
	PATH-243	Diseases of Field Crops and their Management	2+1=3
	PATH-354	Diseases of Horticultural Crops and their Management	2+1=3
Total			8+5=13
Horticulture	HORT-111	Production Technology of Fruit Crops	2+1=3
	HORT-232	Production Technology of Vegetables and Flowers	1+1=2
	HORT-243	Production Technology of Spices, Aromatics, Medicinal and Plantation Crops	1+1=2
	HORT-364	Post Harvest Management and Value addition of Fruits and Vegetable	1+1=2
Total			5+4=9
Agricultural Extension	EXTN-111	Fundamentals of Rural Sociology and Educational Psychology	2+0=2
	EXTN-122	Dimensions of Agricultural Extension	1+1=2
	EXTN-353	Extension Methodologies for Transfer of Agricultural Technology	1+1=2
	EXTN-364	Entrepreneurship Development and Communication Skills	1+1=2
Total			5+3=8
Agricultural Economics	ECON-121	Principles of Agricultural Economics	2+0=2
	ECON-232	Production Economics and Farm Management	1+1=2
	ECON-243	Agricultural Finance & Co-operation	1+1=2
	ECON-354	Agricultural Marketing, Trade and Prices	1+1=2
	ECON-365	Agri-Business Management	1+1=2
	STAT-121	Statistics	1+1=2
Total			7+5=12
Animal Science & Dairy Science	AHDS-111	Livestock Production and Management	1+1=2
	AHDS-242	Livestock Breeding and Nutrition	1+1=2
	AHDS-353	Technology of milk and milk Products	1+1=2
	AHDS-364	Sheep & Goat production	1+1=2
Total			4+4=8
Agricultural Entomology	ENT-231	Insect Morphology and Systematic	2+1=3
	ENT-242	Insect Ecology, Integrated Pest Management and Beneficial Insects	2+1=3
	ENT-353	Crop Pests and Stored Grain Pests and their Management	2+1=3
	ENT-364	Introductory Nematology	1+1=2

		Total	7+4=11
Agricultural Engineering	ENGG-121	Fundamentals of Soil and Water Conservation Engineering	1+1=2
	ENGG-232	Introduction to Computer and Applications	1+1=2
	ENGG-353	Farm Power and Machinery	1+1=2
	ENGG-364	Protected Cultivation and Post harvest Technology	1+1=2
		Total	4+4=8
		Grand Total	74+51=125

Syllabus for CET Agriculture for 20 %

Section "B" : Syllabus of following courses of B.Sc. Hort for 3% weightage

Division of Fruit Science

Sr. No.	Course No.	Course title	Credits
1	H/FS-231	Tropical and Subtropical Fruits	2+1
2	H/FS-242	Breeding of Fruit and Plantation Crops	2+1
3	H/FS-243	Arid Fruit Crops	1+1
4	H/FS-354	Temperate and Plantation Fruit Crops	2+1
5	H/HORT-111	Fundamentals of Horticulture	2+1
6	H/HORT-122	Plant Propagation and Nursery Management	2+1
		Total	11+6=17

Division of Vegetable Science

Sr. No.	Course No.	Course title	Credits
1	H/VS-231	Tropical and Subtropical Vegetable Crops	2+1
2	H/VS-242	Temperate Vegetable Crops	1+1
3	H/VS-353	Breeding of Vegetable Crops	2+1
4	H/VS-364	Seed Production of Vegetable Crops	2+1
5	H/VS-365	Protected Cultivation of Vegetable Crops	1+1
6	H/SPICON-231	Spices and Condiments	1+1
		Total	9+6=15

Division of Floriculture and Landscaping

Sr. No.	Course No.	Course title	Credits
1	H/FL-111	Ornamental Horticulture	1+1
2	H/FL-232	Landscape Gardening	1+1
3	H/FL-243	Commercial Floriculture	2+1
4	H/FL-354	Protected Cultivation of Flower Crops	1+1
5	H/FL-365	Breeding and Seed Production of Ornamental Plants	1+1
		Total	6+5=11

Division of Post Harvest Technology

Sr. No.	Course No.	Course title	Credits
1	H/PHT-231	Post Harvest Management of Horticultural Crops	2+1
2	H/PHT-362	Processing and Value Addition of Horticultural Crops	1+2
		Total	3+3=6

Division of Plant Protection

Sr. No.	Course No.	Course title	Credits
1	H/PATH-121	Fundamentals of Plant Pathology	1+1
2	H/PATH-232	Diseases of Vegetable, Ornamental and Spice Crops	2+1
3	H/PATH-242	Diseases of Fruits, Plantation, Aromatic and Medicinal Crops	2+1
4	H/PATH-354	Mushroom Culture	0+1
5	H/MIBO-111	Introductory Microbiology	1+1
6	H/MIBO-362	Applied Microbiology	0+1

7	H/ENTO-121	Fundamentals of Entomology	1+1
8	H/ENTO-352	Insect Pest Management of Fruit, Plantation, Medicinal and Aromatic Plants	2+1
9	H/ENTO-353	Insect Pest Management of Vegetable, Ornamental and Spice Crops	2+1
10	H/ENTO-364	Nematode Pests of Horticultural Crops and their Management	1+1
11	H/ENTO-365	Apiculture	0+1
		Total	12+11=23

Division of Natural Resource Management

Sr. No.	Course No.	Course title	Credits
1	H/SSAC-111	Fundamentals of Soil Science	1+1
2	H/SSAC-244	Soil, Irrigation Water and Plant Analysis	0+1
3	H/SSAC-232	Fundamentals of Bio-chemistry	1+1
4	H/SSAC-122	Soil Fertility and Nutrient Management	2+1
5	H/BOT-354	Environmental Science and Agro-ecology	1+1
6	H/AGRO-121	Water Management of Horticultural Crops	1+1
7	H/AGRO-232	Weed Management in Horticultural Crops	1+1
8	H/AGRO-243	Organic Farming	1+1
9	H/AGROMET-111	Agriculture Meteorology	1+1
10	H/ENGG-351	Farm Power and Machinery	1+1
		Total	10+10=20

Division of Basic Science & Humanities

Sr. No.	Course No.	Course title	Credits
1	H/HORT-123	Growth and Development of Horticultural Crops	1+1
2	H/HORT-354	Introductory Agroforestry and Horti-silvipasture	1+1
3	H/BIOT-361	Fundamentals of Bio-technology	1+1
4	H/BOT-111	Principles of Genetics and Cytogenetics	2+1
5	H/BOT-122	Principles of Plant Breeding	1+1
6	H/BOT-123	Introductory Plant Physiology	1+1
7	H/AROMED-241	Aromatic and Medicinal Crops	1+1
8	H/EXTN-111	Fundamentals of Extension Education	1+1
9	H/EXTN-122	Agril. Communication and Journalism	0+1
10	H/EXTN-363	Entrepreneurship Development and Communication Skills	1+1
11	H/ECON-232	Horti-Business Management	2+0
12	H/ECON-111	Introductory Economics	2+0
13	H/STAT-121	Elementary Statistics	1+1
14	H/COMP-111	Computer Application	1+1
		Total	16+12=28

Section "C" : Syllabus of following courses of B.Sc. Forestry for 3 % weightage

Sr. No.	Name of department/ Discipline	No. of Credits
1.	Agricultural Sciences	34
	Agricultural Botany	7
	F/BOT – 111 Principles of Cytology and Genetics	2(1+1)
	F/BOT – 112 Principles of Plant Physiology	2(1+1)
	F/ BOT – 113 Introductory Botany	3(2+1)
	Agricultural Economics	2
	F/ ECON – 111 Introductory Forest Economics	2(2+0)

	Soil Science	4
	F/SSAC – 111 Fundamentals of Geology and Soil Science	2(1+1)
	F/SSAC– 232 Fundamentals of Biochemistry	2(1+1)
	Horticulture	3
	F/HORT – 111 Fundamentals of Horticulture	3(2+1)
	Extension Education	5
	F/ EXTN – 241 Fundamentals of Extension Education	2(1+1)
	F/ EXTN – 362 Entrepreneurship Development and Communication Skills	3(2+1)
	Agricultural Engineering	5
	F/ENGG 121 Principles of Hydrology, Soil and Water Conservation	3 (2+1)
	F/ENGG – 351 Introduction to Computer Application	2(1+1)
	Biotechnology	2
	F/ BIOT-361 Fundamentals of Biotechnology	2 (1+1)
	Animal Science and Dairy Science	2
	F/ASDS – 241 Livestock Management	2(1+1)
	Agricultural Statistics	2
	F/ STAT – 351 Elementary Statistics	2(1+1)
	Agricultural Meteorology	2
	F/AGROMET – 111 Agricultural Meteorology	2(1+1)
2.	Forest Biology and Tree Improvement	22
	FBT – 121 Dendrology	3 (2+1)
	FBT – 122 Forest Ecology, Biodiversity and Conservation	3(2+1)
	FBT – 123 Tree Physiology	2(1+1)
	FBT – 234 Principles of Tree Improvement	3 (2+1)
	FBT – 235 Tree Seed Technology	2 (1+1)
	FBT – 246 Fundamentals of Wildlife	2 (2+0)
	FBT – 247 Forest Pathology	3 (2+1)
	FBT – 358 Wild Life Management	2 (1+1)
	FBT – 369 Forest Entomology and Nematology	3(2+1)
3.	Silviculture and Agroforestry	24
	SAF – 121 Principle and Practices of Silviculture	4(3+1)

	SAF – 232 Forest Mensuration	3(2+1)	
	SAF – 233 Nursery Management	2(1+1)	
	SAF – 244 Silviculture of Indian Trees	3 (2+1)	
	SAF – 245 World Forestry Systems	2(2+0)	
	SAF – 356 Silvicultural Systems	2(2+0)	
	SAF – 357 Plantation Forestry and Wasteland Development	2(1+1)	
	SAF – 358 Environmental Science	3 (2+1)	
	SAF – 369 Agro forestry System and Management	3 (2+1)	
4.	Forest Product Utilization	17	
	FPU – 121 Ethnobotany	3 (2+1)	
	FPU – 232 Wood Anatomy	2 (1+1)	
	FPU – 233 Logging and Ergonomics	2 (1+1)	
	FPU – 244 Wood Science and Technology	3 (2+1)	
	FPU – 245 Wood Products and Utilization	2 (1+1)	
	FPU – 356 Medicinal and Aromatic Plants	3 (2+1)	
	FPU – 367 Utilization of Non-Timber Forest Products	3 (2+1)	
5.	Natural Resource Management	23	
	NRM – 121 Chemistry and Fertility of Forest Soils	3 (2+1)	
	NRM – 232 Forest Engineering and Survey	2 (1+1)	
	NRM – 233 Soil Survey and Remote sensing	3 (2+1)	
	NRM – 244 Forest Tribology and Anthropology	2 (2+0)	
	NRM – 355 Rangeland Management	3 (2+1)	
	NRM – 356 Principles of Forest Economics, Project Planning and Evaluation	2 (1+1)	
	NRM – 367 Forest Management, Policy and Legislation	3 (2+1)	
	NRM – 368 Forest Business Management	2 (1+1)	
	NRM -369 Marketing and Trade of Forest Produce	3 (2+1)	
		Total	120

Section “D” : Syllabus of following courses of B.Sc. (Agri Bio-Tech) for 3 % weightage

A. Department of Plant Biotechnology

Sr. No.	Title	Credits
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PB-123	Introduction to Plant Biotechnology	2+1=3
PB-235	Molecular Markers in Plant Breeding	1+1=2
PB-246	Plants Cell and Tissue Culture	2+1=3
PB-357	Biotechnology of Biotic and Abiotic Stress Resistance	2+1=3
PB-358	Biodiversity Conservation	2+1=3
PB-369	Introduction to Bioinformatics	1+2=3
PB-3610	Biosafety Issues	2+0=2
PB 4712	Techniques in Genetic Transformation	1+3=4
PB 4713	PCR Techniques and its Application	1+3=4
PB 4714	Legal issues in GMO' s and LMO's	1+3=4
PB 4715	Plant Genomics	1+3=4
Total		16+19=35

B. Dept. of Biochemistry and Molecular Biology

Sr. No.	Title	Credits
Bio-111	Basic Biochemistry	2+1=3
Bio-122	Enzymology	2+1=3
Bio-123	Microbial Genetics	2+1=3
Bio-234	Molecular Biology	2+1=3
Bio-235	Plant Metabolic Pathways	2+1=3
Bio-236	Elements of Immunology	1+1=2
Bio-247	Techniques in Biochemistry and Molecular Biology	2+2=4
Bio-358	Recombinant DNA Technology	2+1=3
BIO 4710	Advances in Recombinant Technology	1+3=4
BIO 4711	Secondary Metabolites of Commercial Importance	1+3=4
BIO 4712	Immunological techniques and its Application	1+3=4
BIO 4713	Proteins and Proteomics	1+3=4
BIO 4714	Enzyme Technology	1+3=4
Total		20+24=44

C. Department of Post –harvest and Food Biotechnology

Sr. No.	Title	Credits
FB-121	Human Nutrition	1+1=2
FB-232	Industrial Microbiology and Fermentation Technology	2+2=4
FB-243	Enzyme Biotechnology in Food Processing	2+1=3
FB-244	Post-harvest Biotechnology of Food Grains	2+1=3
FB-355	Technological Applications in Food Processing	1+1=2
FB-356	Post-harvest Biotechnology of Horticultural Crops	2+1=3
FB-367	Food and Nutrition Security of GM Food crops	1+1=2
FB 478	Cereal Biotechnology	2+2=4
FB 479	Fruit and Vegetable Biotechnology	2+2=4
FB 4710	Brewing Technology	1+3=4
FB 4711	Wine Technology	1+3=4
FB 4712	Patenting Inventions in Food Biotechnology	2+2=4
Total		19+20=39

D. Department of Animal Biotechnology

Sr. No.	Title	Credits
AB-231	Basics in Animal Biotechnology	2+1=3
AB-242	Animal Cell Culture	2+1=3
AB-243	Biotechnology of Ruminant Feed Utilization	2+1=3
AB-354	Dairy Process Biotechnology	2+1=3
AB-355	Livestock Genome	2+1=3
AB-366	Animal Genetic Engineering	2+1=3
AB 477	Techniques in Animal Cell Culture	1+3=4

AB 478	Transgenic for improvements in animals	1+3=4
AB 479	Artificial Insemination techniques	1+3=4
AB 4710	Advances in Dairy Microbiology	1+3=4
AB 4711	Probiotics in milk and milk products	1+3=4
Total		17+21=38

E. Department of Crop Science

Sr. No.	Title	Credits
CS 237	Greenhouse Technology and Protected cultivation	1+1=2
CS 248	BioStatistics	1+1=2
CS 249	Intellectual Property Rights	1+0=1
CS 3510	Computer Application in Biotechnology	1+2=3
CS 3611	Management of Major Insect Pests and Diseases of Field and Horticultural Crops	1+1=2
CS 3612	Marketing and Export of Biotechnological Products	1+1=2
Total		06+06=12
Total Credit		78+90=168

Section "E" : Syllabus of following courses of B.B.M. (Agri.)for 3 % weightage

1. Departments of Agricultural and Allied Sciences

Sr. No.	Course No.	Course Title	Credits
1	AGRO-111	Agro-Techniques of Principal Crops and Agro-Meteorology	3=2+1
2	AGRO-122	Farming Systems and Sustainable Agriculture	2=2+0
3	AGRO-233	Irrigation Water Management	2=1+1
4	HORT- 111	Production Management of Important Fruit Crops	2=1+1
5	HORT-232	Production Management of Important Vegetable and Floricultural Crops	2=1+1
6	HORT-243	Post Harvest Technology of Horticultural crops	3=2+1
7	BOT-111	Principles of Plant Biotechnology	2=1+1
8	BOT-122	Environmental Science	2=1+1
9	SSAC-121	Soil Fertility, Fertilizers and Nutrient Management	2=1+1
10	SSAC-232	Soil, Water and Plant analysis	2=0+2
11	ASDS- 231	Animal Production Management	2=1+1
12	ASDS-242	Value Addition in Animal Products	2=1+1
13	ENGG-121	Farm Structures and Green House technology	2=1+1
14	ENGG-232	Post-Harvest Technology of Cereals, Pulses, Oilseeds and Cash crops	2=1+1
15	ENT- 121	Integrated Pest Management	2=1+1
16	PATH-231	Integrated Disease Management	2=1+1
17	PATH-362	Bio-fertilizers and Mushroom Production	2=1+1
18	EXTN-121	Entrepreneurship and Personality Development	2=2+0
19	EXTN-232	Communication Skills and Market-Led Extension for Business Management	2=1+1
20	EXTN-243	Consumers Psychology in Business Management	2=1+1
21	EXTN-354	Information Technology in Agri- Business	2=1+1
22	EXTN-365	Organizational Behaviour for Business Management	2=2+0
23	COMP- 111	Introduction to Computer Applications	2=1+1
24	STAT-241	Business Statistics	3=2+1
Total			51=29+22

2. Department of Agricultural Economics

Sr. No.	Course No.	Course Title	Credits
1	ECON- 111	Agricultural Economics and Natural Resource Economics	3=2+1
3	ECON- 112	Structure and Dynamics of Indian Agriculture	2=2+0
2	ECON-123	Farm Business Management	2=1+1
4	ECON-124	Money, Banking and International Trade	2=1+1
5	ECON-235	Agril. Co-operation, Institutions and Management	3=2+1
7	ECON- 246	Indian Agricultural Policies	2=2+0
6	ECON-357	Input-Output Measurement Techniques	2=1+1
8	ECON- 358	Research Methods in Social Sciences	2=1+1
9	ECON-369	Planning, Formulation and Evaluation of Business Projects	3=1+2
10	ECON-3610	Financial Management in Agri- Business	3=2+1
Total			24 = 15 + 9

3. Department of Agricultural Marketing

Sr. No.	Course No.	Course Title	Credits
1	MKT-121	Introduction to Agricultural Marketing	2=1+1
3	MKT-232	Marketing Institutions and Organizations	3=2+1
2	MKT-233	Input Marketing Management	3=2+1
4	MKT-244	Rural Marketing and Market Infrastructure	3=2+1
5	MKT-245	Retail Marketing	3=2+1
7	MKT-356	Trading of Agricultural Commodities-I	2=1+1
6	MKT-357	Market and Trade Acts	2=2+0
8	MKT-368	Trading of Agricultural Commodities-II	2=1+1
Total			20 = 13 + 7

4. Department of Agri-Business Management

Sr. No.	Course No.	Course Title	Credits
1	ABM- 111	Introduction to Agri-Business Management	2=1+1
2	ABM-122	Agro-based Industrialization	2=2+0
3	ABM-233	Office Procedures for Agri-Business	1=0+1
4	ABM-244	Disaster Management in Agriculture	2=1+1
5	ABM-355	Inventory and Risk Management	2=1+1
6	ABM-356	Agro-tourism	2=1+1
7	ABM-357	Production Management, Planning and Control	2=1+1
8	ABM-358	Agro-Processing Managements	2=1+1
9	ABM-359	Marketing and Management Policies	2=1+1
10	ABM-3610	Agri-Business Operations, HRD and Strategic Management	2=2+0
11	ABM-3611	Product Promotion Methods	2=1+1

12	ABM-3612	Managerial Accounting	2=1+1
13	ABM-3613	Market Survey and Price Analysis	2=0+2
		Total	25=13+12
		GRANT TOTAL	120 =70 +50

Section "F" : Syllabus of following courses of B.Tech (Agril. Engg.) for 3.5 % weightage

1) Basic Science and Computer Technology

Course Number	Course Title	Credits
BS-MATH-111	Engineering Mathematics-I	3(2+1)
BS-PHY-112	Engineering Physics	3(2+1)
BS-CT-113	Computer Programming and Data Structures	3(1+2)
BS-MATH-124	Engineering Mathematics-II	3(2+1)
BS-CT-125	Database Management and Internet Applications	2(0+2)
BS-MATH-236	Engineering Mathematics-III	3(2+1)
BS-STAT-237	Statistical Methods	2(1+1)
	Total	19(10+9)

2) Agricultural Science

Course Number	Course Title	Credits
AG-111	Agronomy	2(1+1)
AG-112	Horticulture	2(1+1)
AG-113	Animal Sciences and Dairy Science	2(1+1)
AG-124	Soil Science	2(1+1)
AG-245	Agribusiness Management and Trade	2(2+0)
AG-366	Entrepreneurship Development and Communication Skills	2(1+1)
	Total	12(7+5)

3) Department of Farm Machinery and Power

Course Number	Course Title	Credits
FMP-111	Workshop Practice	2(0+2)
FMP-112	Engineering Drawing	2(0+2)
FMP-123	Workshop Technology	2(1+1)
FMP-124	Machine Drawing and Computer Graphics	2(0+2)
FMP-235	Theory of Machines	3(2+1)
FMP-236	Farm Power	2(1+1)
FMP-247	Farm Machinery and Equipment-I	2(1+1)
FMP-248	Tractor System and Control	2(1+1)
FMP-359	Farm Machinery and Equipment-II	2(1+1)
FMP-3610	Machine Design	3(2+1)
FMP-3611	Field Operation and Maintenance of Tractor and Farm Machinery	1(0+1)
	Total	23(9+14)

4) Department of Soil and Water Conservation Engineering

Course Number	Course Title	Credits
SWCE-121	Surveying and Leveling	3(1+2)
SWCE-232	Soil Mechanics	3(2+1)
SWCE-233	Watershed Hydrology	3(2+1)
SWCE-244	Soil and Water Conservation Engineering	3(2+1)
SWCE-355	Soil and Water Conservation Structures	3(2+1)
SWCE-366	Watershed Planning and Management	3(2+1)
	Total	18(11+7)

5) Department of Irrigation and Drainage Engineering

Course Number	Course Title	Credits
IDE-231	Fluid Mechanics	3(2+1)
IDE-242	Irrigation Engineering	3(2+1)
IDE-353	Groundwater, Wells and Pumps	3(2+1)
IDE-354	Drainage Engineering	3(2+1)
IDE-365	Advanced Irrigation System Design	2(1+1)

IDE-366	Minor Irrigation and Command Area Development	3(2+1)
	Total	17(11+6)

6) Department of Agricultural Process Engineering

Course Number	Course Title	Credits
APE-121	Thermodynamics	3(2+1)
APE-232	Engineering Properties of Biological Materials and Food Quality	2(1+1)
APE-243	Heat and Mass Transfer	2(1+1)
APE-244	Crop Process Engineering	3(2+1)
APE-355	Dairy and Food Engineering	3(2+1)
APE-356	Drying of Farm Crop	2(1+1)
APE-357	Storage Engineering	2(1+1)
APE-368	Refrigeration and Air Conditioning	2(1+1)
	Total	19(11+8)

7) Department of Farm Structure

Course Number	Course Title	Credits
FS-121	Engineering Mechanics	3(2+1)
FS-242	Building Materials	2(1+1)
FS-353	Strength of Material	3(2+1)
FS-354	Agricultural Structures and Environmental Control	3(2+1)
FS-365	Design of Structures	3(2+1)
	Total	14(9+5)

8) Department of Electrical and Other Energy Sources

Course Number	Course Title	Credits
EOES-111	Engineering Chemistry	2(1+1)
EOES-122	Applied Electronics and Instrumentation	3(2+1)
EOES-233	Electrical Circuits	3(2+1)
EOES-244	Electrical Machines and Power Utilization	3(2+1)
EOES-365	Renewable Energy Sources	3(2+1)
	Total	14(9+5)
	Total credit	136(77+59)

Section "G": Syllabus of following courses of B.Tech (Food Science) for 3 % weightage

Department of Food Science and Technology

Sr. No.	Course No.	Course Title	Credits
1	FST-111	Principles of Food Processing	2+1=3
2	FST-112	Food Production Trends and Programs	2+0=2
3	FST-123	Post harvest Management of Fruit and Vegetable	2+1=3
4	FST-124	Cereal Processing	2+1=3
5	FST-235	Legume and Oilseed Technology	2+1=3
6	FST-236	Meat, Poultry and Fish Technology	2+1=3
7	FST-237	Wheat Milling and Baking Technology	2+1=3
8	FST-238	Confectionery Technology	1+1=2
9	FST-249	Fruit and Vegetable Processing	2+1=3
10	FST-2410	Food Quality	1+1=2
11	FST-2411	Processing of Milk and Milk Products	1+1=2
12	FST-2412	Spice and Flavor Technology	2+1=3
13	FST-3513	Food Industry By-Products and Waste Utilization	1+1=2
14	FST-3514	Carbonated Beverage Technology	1+1=2
15	FST-3615	Product Development and Formulation	1+1=2
16	FST-3616	Speciality Foods	2+1=3
17	FST-3617	Extrusion Technology	1+1=2
18	FST-3618	Quality Assurance and Certification	2+1=3
		Total	29+17= 46

Department of Food Chemistry and Nutrition

Sr. No.	Course No.	Course Title	Credits
1	FCN-111	Bio-chemistry	2+1=3
2	FCN-112	Food Chemistry-I	2+1=3
3	FCN-123	Food Chemistry –II	2+1=3
4	FCN-124	Human Nutrition	2+1=3
5	FCN-235	Techniques in Food Analysis	1+2=3
6	FCN-246	Food Additives	2+1=3
7	FCN-247	Environmental Science	2+1=3
Total credits			13+8= 21

Department of Food and Industrial Microbiology

Sr. No.	Course No.	Course Title	Credits
1	FIM-111	Fundamentals of Microbiology	2+1=3
2	FIM-122	Food Microbiology	2+1=3
3	FIM-233	Fermentation and Industrial Microbiology	2+1=3
4	FIM-244	Food Safety and Microbial Standards	2+1=3
5	FIM-355	Food Bio-technology	2+1=3
6	FIM-366	Food Hygiene and Sanitation	2+1=3
Total credits			12+6= 18

Department of Food Engineering

Sr. No.	Course No.	Course Title	Credits
1	FE-111	Engineering Drawing	0+1=1
2	FE-112	Fluid Mechanics and Hydraulics	1+1=2
3	FE-123	Energy Generation and Conservation	2+1=3
4	FE-124	Heat and Mass Transfer	1+1=2
5	FE-235	Food Processing Equipments-I	2+1=3
6	FE-236	Food Packaging	2+1=3
7	FE-247	Food Processing Equipments-II	2+1=3
8	FE-358	Refrigeration Engineering and Cold Chain	2+1=3
9	FE-359	Bio-Chemical Engineering	2+1=3
10	FE-3510	Instrumentation and Process Control	2+1=3
11	FE-3611	Food Plant Design and Layout	1+2=3
Total credits			17+12=29

Department of Food Trade and Business Management

Sr. No.	Course No.	Course Title	Credits
1	FTBM-351	Co-operation, Marketing and Finance	2+1=3
2	FTBM-352	Business Management and International Trade	2+0=2
3	FTBM-363	Entrepreneurship Development and Communication Skills	1+1=2
4	FTBM-364	Food Laws and Regulations	2+1=3
Total credits			7+3=10
Grand Total			78+46=124

Section “H”: Syllabus of following courses of B.Sc. (Home Science) for 1.5 % weightage

Sr. No.	Course No.	Course Title	Credits
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1	FSN 111	Elements of Food science	2+1
2	FRM 111	Management of Family Resources	2+0
3	TAD 111	Fundamentals of clothing construction	1+2
4	HECM 111	Home Science Extension & Rural Development	2+1
5	HDFS 111	Life Span Development	2+1
6	FSN 122	Introduction to Human Nutrition	2+1
7	HDFS 122	Early Childhood Development, Care & Education	2+1
8	TAD 122	Textile Science & Care	2+1
9	FRM 122	Family Economics	1+1
10	FRM 123	Consumer Education	1+1
11	HECM 122	Communication & Instructional Technology	1+2
12	FSN 233	Normal and Therapeutic Nutrition	2+1
13	FRM 234	Housing and space Management	1+2
14	HDFS 233	Children with Developmental Challenges	2+1
15	HECM 233	Diffusion and adoption of Home stead technology	2+1
16	TAD 233	Apparel Designing & Construction	1+2
17	FSN 244	Food preservation and Storage	1+2
18	FRM 245	Fundamentals of Art & Design	1+2
19	TAD 244	Fundamentals of Textile Designing	2+1
20	HDFS 244	Dynamics of Marriage & Family	2+1
21	HECM 244	Programme Development	1+2
22	FSN ND 351	Food Science	2+1
23	FSN ND 361	Advanced Human Nutrition	3+0
24	FRM ID 351	Space Designing-I (Residential)	1+2
25	FRM ID 361	Interior Designing & Decoration	1+2
26	HDFS MEC 362	Organisation & Management of ECCD Programmes	2+3
27	TAD TD 353	Principles of Design Application	1+3
28	HE IT CM 353	Training & Human Resource Development	1+3
		Total Credits	85

Annexure: "C"

Section "A": Syllabus for CET in Horticulture Stream for 80 %

Division of Fruit Science

Sr. No.	Course No.	Course title	Credits
1	H/FS-231	Tropical and Subtropical Fruits	2+1
2	H/FS-242	Breeding of Fruit and Plantation Crops	2+1
3	H/FS-243	Arid Fruit Crops	1+1
4	H/FS-354	Temperate and Plantation Fruit Crops	2+1
5	H/HORT-111	Fundamentals of Horticulture	2+1
6	H/HORT-122	Plant Propagation and Nursery Management	2+1
		Total	11+6=17

Division of Vegetable Science

Sr. No.	Course No.	Course title	Credits
1	H/VS-231	Tropical and Subtropical Vegetable Crops	2+1

2	H/VS-242	Temperate Vegetable Crops	1+1
3	H/VS-353	Breeding of Vegetable Crops	2+1
4	H/VS-364	Seed Production of Vegetable Crops	2+1
5	H/VS-365	Protected Cultivation of Vegetable Crops	1+1
6	H/SPICON-231	Spices and Condiments	1+1
		Total	9+6=15

Division of Floriculture and Landscaping

Sr. No.	Course No.	Course title	Credits
1	H/FL-111	Ornamental Horticulture	1+1
2	H/FL-232	Landscape Gardening	1+1
3	H/FL-243	Commercial Floriculture	2+1
4	H/FL-354	Protected Cultivation of Flower Crops	1+1
5	H/FL-365	Breeding and Seed Production of Ornamental Plants	1+1
		Total	6+5=11

Division of Post Harvest Technology

Sr. No.	Course No.	Course title	Credits
1	H/PHT-231	Post Harvest Management of Horticultural Crops	2+1
2	H/PHT-362	Processing and Value Addition of Horticultural Crops	1+2
		Total	3+3=6

Division of Plant Protection

Sr. No.	Course No.	Course title	Credits
1	H/PATH-121	Fundamentals of Plant Pathology	1+1
2	H/PATH-232	Diseases of Vegetable, Ornamental and Spice Crops	2+1
3	H/PATH-242	Diseases of Fruits, Plantation, Aromatic and Medicinal Crops	2+1
4	H/PATH-354	Mushroom Culture	0+1
5	H/MIBO-111	Introductory Microbiology	1+1
6	H/MIBO-362	Applied Microbiology	0+1
7	H/ENTO-121	Fundamentals of Entomology	1+1
8	H/ENTO-352	Insect Pest Management of Fruit, Plantation, Medicinal and Aromatic Plants	2+1
9	H/ENTO-353	Insect Pest Management of Vegetable, Ornamental and Spice Crops	2+1
10	H/ENTO-364	Nematode Pests of Horticultural Crops and their Management	1+1
11	H/ENTO-365	Apiculture	0+1
		Total	12+11=23

Division of Natural Resource Management

Sr. No.	Course No.	Course title	Credits
1	H/SSAC-111	Fundamentals of Soil Science	1+1
2	H/SSAC-244	Soil, Irrigation Water and Plant Analysis	0+1
3	H/SSAC-232	Fundamentals of Bio-chemistry	1+1
4	H/SSAC-122	Soil Fertility and Nutrient Management	2+1
5	H/BOT-354	Environmental Science and Agro-ecology	1+1
6	H/AGRO-121	Water Management of Horticultural Crops	1+1
7	H/AGRO-232	Weed Management in Horticultural Crops	1+1
8	H/AGRO-243	Organic Farming	1+1

9	H/AGROMET-111	Agriculture Meteorology	1+1
10	H/ENGG-351	Farm Power and Machinery	1+1
		Total	10+10=20

Division of Basic Science & Humanities

Sr. No.	Course No.	Course title	Credits
1	H/HORT-123	Growth and Development of Horticultural Crops	1+1
2	H/HORT-354	Introductory Agroforestry and Horti-silvipasture	1+1
3	H/BIOT-361	Fundamentals of Bio-technology	1+1
4	H/BOT-111	Principles of Genetics and Cytogenetics	2+1
5	H/BOT-122	Principles of Plant Breeding	1+1
6	H/BOT-123	Introductory Plant Physiology	1+1
7	H/AROMED-241	Aromatic and Medicinal Crops	1+1
8	H/EXTN-111	Fundamentals of Extension Education	1+1
9	H/EXTN-122	Agril. Communication and Journalism	0+1
10	H/EXTN-363	Entrepreneurship Development and Communication Skills	1+1
11	H/ECON-232	Horti-Business Management	2+0
12	H/ECON-111	Introductory Economics	2+0
13	H/STAT-121	Elementary Statistics	1+1
14	H/COMP-111	Computer Application	1+1
		Total	16+12=28
		Grand Total	67+53=120

Syllabus for CET Horticulture for 20 %

Section "B" : Syllabus of following courses of B.Sc. Agriculture for 10 % Weightage

Subject	Course No.	Title	Credits
Agronomy	AGRO-111	Principles of Agronomy	1+1=2
	AGRO-112	Agricultural Meteorology	1+1=2
	AGRO-113	Introductory Agriculture (Ancient heritage, agricultural scenario and gender equity in Agriculture)	1+0=1
	AGRO-124	Water Management including Micro irrigation	2+1=3
	AGRO-235	Field Crops – (I) (<i>Kharif Crops</i>)	2+1=3
	AGRO-236	Practical Crop Production (I) (<i>Kharif Crops</i>)	0+1=1
	AGRO-247	Field Crops-(II) (<i>Rabi Crops</i>)	2+1=3
	AGRO-248	Practical Crop Production (II) (<i>Rabi Crops</i>)	0+1=1
	AGRO-359	Weed Management	1+1=2
	AGRO-3611	Organic and Rainfed farming	1+1=2
Total			12+10=22
Botany	BOT-111	Environmental Science	1+1=2
	BOT-122	Principles of genetics	2+1=3
	BOT-233	Principles of Plant Breeding	2+1=3
	BOT-234	Crop Physiology	2+1=3
	BOT-245	Breeding of field and Horticultural crops	2+1=3
	BOT-356	Principles of Plant Biotechnology	2+1=3

	BOT-367	Principles of Seed Technology	2+1=3
Total			13+7=20
Soil Science	SSAC-111	Introduction to Soil Science	2+1=3
	SSAC-122	Soil Chemistry, Soil Fertility and Nutrient Management	2+1=3
	SSAC-243	Manures, Fertilizers and Agrochemicals	2+1=3
	SSAC-354	Biochemistry	2+1=3
Total			8+4=12
Plant Pathology	PATH-111	Introductory Plant Pathology	1+1=2
	MIBO-121	Agricultural Microbiology	2+1=3
	PATH-232	Principles of Plant Pathology	1+1=2
	PATH-243	Diseases of Field Crops and their Management	2+1=3
	PATH-354	Diseases of Horticultural Crops and their Management	2+1=3
Total			8+5=13
Horticulture	HORT-111	Production Technology of Fruit Crops	2+1=3
	HORT-132	Production Technology of Vegetables and Flowers	1+1=2
	HORT-243	Production Technology of Spices, Aromatics, Medicinal and Plantation Crops	1+1=2
	HORT-364	Post Harvest Management and Value addition of Fruits and Vegetable	1+1=2
Total			5+4=9
Agricultural Extension	EXTN-111	Fundamentals of Rural Sociology and Educational Psychology	2+0=2
	EXTN-122	Dimensions of Agricultural Extension	1+1=2
	EXTN-353	Extension Methodologies for Transfer of Agricultural Technology	1+1=2
	EXTN-364	Entrepreneurship Development and Communication Skills	1+1=2
Total			5+3=8
Agricultural Economics	ECON-121	Principles of Agricultural Economics	2+0=2
	ECON-232	Production Economics and Farm Management	1+1=2
	ECON-243	Agricultural Finance & Co-operation	1+1=2
	ECON-354	Agricultural Marketing, Trade and Prices	1+1=2
	ECON-365	Agri-Business Management	1+1=2
	STAT-121	Statistics	1+1=2
Total			7+5=12
Animal Science & Dairy Science	ASDS-111	Livestock Production and Management	1+1=2
	ASDS-242	Livestock Breeding and Nutrition	1+1=2
	ASDS-353	Technology of milk and milk Products	1+1=2
	ASDS-364	Sheep & Goat production	1+1=2
Total			4+4=8
Agricultural Entomology	ENT-231	Insect Morphology and Systematic	2+1=3
	ENT-242	Insect Ecology, Integrated Pest Management and Beneficial Insects	2+1=3
	ENT-353	Crop Pests and Stored Grain Pests and their Management	2+1=3
	ENT-364	Introductory Nematology	1+1=2

Total			7+4=11
Agricultural Engineering	ENGG-121	Fundamentals of Soil and Water Conservation Engineering	1+1=2
	ENGG-232	Introduction to Computer and Applications	1+1=2
	ENGG-353	Farm Power and Machinery	1+1=2
	ENGG-364	Protected Cultivation and Post harvest Technology	1+1=2
Total			4+4=8
Grand Total			74+51=125

Section "C": Syllabus of following courses of B.Sc. Forestry for 10 %

Sr. No.	Name of department/ Discipline	No. of Credits	
1.	Agricultural Sciences	34	
	Agricultural Botany	7	
	F/BOT – 111 Principles of Cytology and Genetics	2(1+1)	
	F/BOT – 112 Principles of Plant Physiology	2(1+1)	
	F/ BOT – 113 Introductory Botany	3(2+1)	
	Agricultural Economics	2	
	F/ ECON – 111 Introductory Forest Economics	2(2+0)	
	Soil Science	4	
	F/SSAC – 111 Fundamentals of Geology and Soil Science	2(1+1)	
	F/SSAC– 232 Fundamentals of Biochemistry	2(1+1)	
	Horticulture	3	
	F/HORT – 111 Fundamentals of Horticulture	3(2+1)	
	Extension Education	5	
	F/ EXTN – 241 Fundamentals of Extension Education	2(1+1)	
	F/ EXTN – 362 Entrepreneurship Development and Communication Skills	3 (2+1)	
	Agricultural Engineering	5	
	F/ENGG - 121 Principles of Hydrology, Soil and Water Conservation	3(2+1)	
	F/ENGG – 351 Introduction to Computer Application	2(1+1)	
	Biotechnology	2	
	F/ BIOT-361 Fundamentals of Biotechnology	2(1+1)	
	Animal Science and Dairy Science	2	
	F/ASDS – 241 Livestock Management	2(1+1)	
	Agricultural Statistics	2	
	F/ STAT – 351 Elementary Statistics	2(1+ 1)	

	Agricultural Meteorology	2	
	F/AGROMET – 111 Agricultural Meteorology	2(1+1)	
2.	Forest Biology and Tree Improvement	22	
	FBT – 121 Dendrology	3(2+1)	
	FBT – 122 Forest Ecology, Biodiversity and Conservation	3(2+1)	
	FBT – 123 Tree Physiology	2(1+1)	
	FBT – 234 Principles of Tree Improvement	3(2+1)	
	FBT – 235 Tree Seed Technology	2(1+1)	
	FBT – 246 Fundamentals of Wildlife	2(2+0)	
	FBT – 247 Forest Pathology	3(2+1)	
	FBT – 358 Wild Life Management	2(1+1)	
	FBT – 369 Forest Entomology and Nematology	3(2+1)	
3.	Silviculture and Agroforestry	24	
	SAF – 121 Principle and Practices of Silviculture	4(3+1)	
	SAF – 232 Forest Mensuration	3(2+1)	
	SAF – 233 Nursery Management	2(1+1)	
	SAF – 244 Silviculture of Indian Trees	3(2+1)	
	SAF – 245 World Forestry Systems	2(2+0)	
	SAF – 356 Silvicultural Systems	2(2+0)	
	SAF – 357 Plantation Forestry and Wasteland Development	2(1+1)	
	SAF – 358 Environmental Science	3(2+1)	
	SAF – 369 Agro forestry System and Management	3(2+1)	
4.	Forest Product Utilization	17	
	FPU – 121 Ethnobotany	3(2+1)	
	FPU – 232 Wood Anatomy	2(1+1)	
	FPU – 233 Logging and Ergonomics	2(1+1)	
	FPU – 244 Wood Science and Technology	3(2+1)	
	FPU – 245 Wood Products and Utilization	2(1+1)	
	FPU – 356 Medicinal and Aromatic Plants	3(2+1)	
	FPU – 367 Utilization of Non-Timber Forest Products	3(2+1)	

5.	Natural Resource Management	23	
	NRM – 121 Chemistry and Fertility of Forest Soils	3(2+1)	
	NRM – 232 Forest Engineering and Survey	2(1+1)	
	NRM – 233 Soil Survey and Remote sensing	3(2+1)	
	NRM – 244 Forest Tribology and Anthropology	2(2+0)	
	NRM – 355 Rangeland Management	3 (2+1)	
	NRM – 356 Principles of Forest Economics, Project Planning and Evaluation		2(1+1)
	NRM – 367 Forest Management, Policy and Legislation	3(2+1)	
	NRM – 368 Forest Business Management	2(1+1)	
	NRM -369 Marketing and Trade of Forest Produce	3(2+1)	
	Total	120	

Annexure: “D”

Section “A”: Syllabus for CET in Forestry Stream for 80 %

Sr. No.	Name of department/ Discipline	No. of Credits	No. of Questions
1.	Agricultural Sciences	34	45
	Agricultural Botany	7	9
	F/BOT – 111 Principles of Cytology and Genetics	2(1+1)	
	F/BOT – 112 Principles of Plant Physiology	2(1+1)	
	F/ BOT – 113 Introductory Botany	3(2+1)	
	Agricultural Economics	2	3
	F/ ECON – 111 Introductory Forest Economics	2(2+0)	
	Soil Science	4	5
	F/SSAC – 111 Fundamentals of Geology and Soil Science	2(1+1)	
	F/SSAC– 232 Fundamentals of Biochemistry	2(1+1)	
	Horticulture	3	4
	F/HORT – 111 Fundamentals of Horticulture	3(2+1)	
	Extension Education	5	7
	F/ EXTN – 241 Fundamentals of Extension Education	2(1+1)	
	F/ EXTN – 362 Entrepreneurship Development and Communication Skills		3(2+1)
	Agricultural Engineering	5	7
	F/ENGG 121 Principles of Hydrology, Soil and Water Conservation	3(2+1)	

	F/ENGG – 351 Introduction to Computer Application	2(1+1)	
	Biotechnology	2	3
	F/ BIOT-361 Fundamentals of Biotechnology	2(1+1)	
	Animal Science and Dairy Science	2	3
	F/ASDS – 241 Livestock Management	2(1+1)	
	Agricultural Statistics	2	3
	F/ STAT – 351 Elementary Statistics	2(1+ 1)	
	Agricultural Meteorology	2	3
	F/AGROMET – 111 Agricultural Meteorology	2(1+1)	
2.	Forest Biology and Tree Improvement	22	29
	FBT – 121 Dendrology	3(2+1)	
	FBT – 122 Forest Ecology, Biodiversity and Conservation	3(2+1)	
	FBT – 123 Tree Physiology	2(1+1)	
	FBT – 234 Principles of Tree Improvement	3(2+1)	
	FBT – 235 Tree Seed Technology	2(1+1)	
	FBT – 246 Fundamentals of Wildlife	2(2+0)	
	FBT – 247 Forest Pathology	3(2+1)	
	FBT – 358 Wild Life Management	2(1+1)	
	FBT – 369 Forest Entomology and Nematology	3(2+1)	
3.	Silviculture and Agroforestry	24	32
	SAF – 121 Principle and Practices of Silviculture	4(3+1)	
	SAF – 232 Forest Mensuration	3(2+1)	
	SAF – 233 Nursery Management	2(1+1)	
	SAF – 244 Silviculture of Indian Trees	3(2+1)	
	SAF – 245 World Forestry Systems	2(2+0)	
	SAF – 356 Silvicultural Systems	2(2+0)	
	SAF – 357 Plantation Forestry and Wasteland Development	2(1+1)	
	SAF – 358 Environmental Science	3(2+1)	
	SAF – 369 Agro forestry System and Management	3(2+1)	
4.	Forest Product Utilization	17	23
	FPU – 121 Ethnobotany	3(2+1)	

	FPU – 232 Wood Anatomy	2(1+1)	
	FPU – 233 Logging and Ergonomics	2(1+1)	
	FPU – 244 Wood Science and Technology	3(2+1)	
	FPU – 245 Wood Products and Utilization	2(1+1)	
	FPU – 356 Medicinal and Aromatic Plants	3(2+1)	
	FPU – 367 Utilization of Non-Timber Forest Products	3(2+1)	
5.	Natural Resource Management	23	31
	NRM – 121 Chemistry and Fertility of Forest Soils	3(2+1)	
	NRM – 232 Forest Engineering and Survey	2(1+1)	
	NRM – 233 Soil Survey and Remote sensing	3(2+1)	
	NRM – 244 Forest Tribology and Anthropology	2(2+0)	
	NRM – 355 Rangeland Management	3(2+1)	
	NRM – 356 Principles of Forest Economics, Project Planning and Evaluation	2(1+1)	
	NRM – 367 Forest Management, Policy and Legislation	3(2+1)	
	NRM – 368 Forest Business Management	2(1+1)	
	NRM -369 Marketing and Trade of Forest Produce	3(2+1)	
	Total	120	160

Syllabus for CET Forestry for 20 %
Section “B”: Syllabus of following courses of B.Sc. Agriculture for 10 %

Subject	Course No.	Title	Credits
Agronomy	AGRO-111	Principles of Agronomy	1+1=2
	AGRO-112	Agricultural Meteorology	1+1=2
	AGRO-113	Introductory Agriculture (Ancient heritage, agricultural scenario and gender equity in Agriculture)	1+0=1
	AGRO-124	Water Management including Micro irrigation	2+1=3
	AGRO-235	Field Crops – (I) (<i>Kharif Crops</i>)	2+1=3
	AGRO-236	Practical Crop Production (I) (<i>Kharif Crops</i>)	0+1=1
	AGRO-247	Field Crops-(II) (Rabi Crops)	2+1=3
	AGRO-248	Practical Crop Production (II) (Rabi Crops)	0+1=1
	AGRO-359	Weed Management	1+1=2
	AGRO-3611	Organic and Rainfed farming	1+1=2
Total			12+10=22

Botany	BOT-111	Environmental Science	1+1=2
	BOT-122	Principles of genetics	2+1=3
	BOT-233	Principles of Plant Breeding	2+1=3
	BOT-234	Crop Physiology	2+1=3
	BOT-245	Breeding of field and Horticultural crops	2+1=3
	BOT-356	Principles of Plant Biotechnology	2+1=3
	BOT-367	Principles of Seed Technology	2+1=3
Total			13+7=20
Soil Science	SSAC-111	Introduction to Soil Science	2+1=3
	SSAC-122	Soil Chemistry, Soil Fertility and Nutrient Management	2+1=3
	SSAC-243	Manures, Fertilizers and Agrochemicals	2+1=3
	SSAC-354	Biochemistry	2+1=3
Total			8+4=12
Plant Pathology	PATH-111	Introductory Plant Pathology	1+1=2
	MIBO-121	Agricultural Microbiology	2+1=3
	PATH-232	Principles of Plant Pathology	1+1=2
	PATH-243	Diseases of Field Crops and their Management	2+1=3
	PATH-354	Diseases of Horticultural Crops and their Management	2+1=3
Total			8+5=13
Horticulture	HORT-111	Production Technology of Fruit Crops	2+1=3
	HORT-132	Production Technology of Vegetables and Flowers	1+1=2
	HORT-243	Production Technology of Spices, Aromatics, Medicinal and Plantation Crops	1+1=2
	HORT-364	Post Harvest Management and Value addition of Fruits and Vegetable	1+1=2
Total			5+4=9
Agricultural Extension	EXTN-111	Fundamentals of Rural Sociology and Educational Psychology	2+0=2
	EXTN-122	Dimensions of Agricultural Extension	1+1=2
	EXTN-353	Extension Methodologies for Transfer of Agricultural Technology	1+1=2
	EXTN-364	Entrepreneurship Development and Communication Skills	1+1=2
Total			5+3=8
Agricultural Economics	ECON-121	Principles of Agricultural Economics	2+0=2
	ECON-232	Production Economics and Farm Management	1+1=2
	ECON-243	Agricultural Finance & Co-operation	1+1=2
	ECON-354	Agricultural Marketing, Trade and Prices	1+1=2
	ECON-365	Agri-Business Management	1+1=2
	STAT-121	Statistics	1+1=2
Total			7+5=12

Animal Science & Dairy Science	ASDS-111	Livestock Production and Management	1+1=2
	ASDS-242	Livestock Breeding and Nutrition	1+1=2
	ASDS-353	Technology of milk and milk Products	1+1=2
	ASDS-364	Sheep & Goat production	1+1=2
Total			4+4=8
Agricultural Entomology	ENT-231	Insect Morphology and Systematic	2+1=3
	ENT-242	Insect Ecology, Integrated Pest Management and Beneficial Insects	2+1=3
	ENT-353	Crop Pests and Stored Grain Pests and their Management	2+1=3
	ENT-364	Introductory Nematology	1+1=2
Total			7+4=11
Agricultural Engineering	ENGG-121	Fundamentals of Soil and Water Conservation Engineering	1+1=2
	ENGG-232	Introduction to Computer and Applications	1+1=2
	ENGG-353	Farm Power and Machinery	1+1=2
	ENGG-364	Protected Cultivation and Post harvest Technology	1+1=2
Total			4+4=8
Grand Total			73+50=123

Section “ C ”: Syllabus of following courses of B.Sc. Hort for 10 % Weightage Division of Fruit Science

Sr. No.	Course No.	Course title	Credits
1	H/FS-231	Tropical and Subtropical Fruits	2+1
2	H/FS-242	Breeding of Fruit and Plantation Crops	2+1
3	H/FS-243	Arid Fruit Crops	1+1
4	H/FS-354	Temperate and Plantation Fruit Crops	2+1
5	H/HORT-111	Fundamentals of Horticulture	2+1
6	H/HORT-122	Plant Propagation and Nursery Management	2+1
Total			11+6=17

Division of Vegetable Science

Sr. No.	Course No.	Course title	Credits
1	H/VS-231	Tropical and Subtropical Vegetable Crops	2+1
2	H/VS-242	Temperate Vegetable Crops	1+1
3	H/VS-353	Breeding of Vegetable Crops	2+1
4	H/VS-364	Seed Production of Vegetable Crops	2+1
5	H/VS-365	Protected Cultivation of Vegetable Crops	1+1
6	H/SPICON-231	Spices and Condiments	1+1
Total			9+6=15

Division of Floriculture and Landscaping

Sr. No.	Course No.	Course title	Credits
1	H/FL-111	Ornamental Horticulture	1+1
2	H/FL-232	Landscape Gardening	1+1
3	H/FL-243	Commercial Floriculture	2+1
4	H/FL-354	Protected Cultivation of Flower Crops	1+1

5	H/FL-365	Breeding and Seed Production of Ornamental Plants	1+1
		Total	6+5=11

Division of Post Harvest Technology

Sr. No.	Course No.	Course title	Credits
1	H/PHT-231	Post Harvest Management of Horticultural Crops	2+1
2	H/PHT-362	Processing and Value Addition of Horticultural Crops	1+2
		Total	3+3=6

Division of Plant Protection

Sr. No.	Course No.	Course title	Credits
1	H/PATH-121	Fundamentals of Plant Pathology	1+1
2	H/PATH-232	Diseases of Vegetable, Ornamental and Spice Crops	2+1
3	H/PATH-242	Diseases of Fruits, Plantation, Aromatic and Medicinal Crops	2+1
4	H/PATH-354	Mushroom Culture	0+1
5	H/MIBO-111	Introductory Microbiology	1+1
6	H/MIBO-362	Applied Microbiology	0+1
7	H/ENTO-121	Fundamentals of Entomology	1+1
8	H/ENTO-352	Insect Pest Management of Fruit, Plantation, Medicinal and Aromatic Plants	2+1
9	H/ENTO-353	Insect Pest Management of Vegetable, Ornamental and Spice Crops	2+1
10	H/ENTO-364	Nematode Pests of Horticultural Crops and their Management	1+1
11	H/ENTO-365	Apiculture	0+1
		Total	12+11=23

Division of Natural Resource Management

Sr. No.	Course No.	Course title	Credits
1	H/SSAC-111	Fundamentals of Soil Science	1+1
2	H/SSAC-244	Soil, Irrigation Water and Plant Analysis	0+1
3	H/SSAC-232	Fundamentals of Bio-chemistry	1+1
4	H/SSAC-122	Soil Fertility and Nutrient Management	2+1
5	H/BOT-354	Environmental Science and Agro-ecology	1+1
6	H/AGRO-121	Water Management of Horticultural Crops	1+1
7	H/AGRO-232	Weed Management in Horticultural Crops	1+1
8	H/AGRO-243	Organic Farming	1+1
9	H/AGROMET-111	Agriculture Meteorology	1+1
10	H/ENGG-351	Farm Power and Machinery	1+1
		Total	10+10=20

Division of Basic Science & Humanities

Sr.	Course No.	Course title	Credits
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No.			
1	H/HORT-123	Growth and Development of Horticultural Crops	1+1
2	H/HORT-354	Introductory Agroforestry and Horti-silvipasture	1+1
3	H/BIOT-361	Fundamentals of Bio-technology	1+1
4	H/BOT-111	Principles of Genetics and Cytogenetics	2+1
5	H/BOT-122	Principles of Plant Breeding	1+1
6	H/BOT-123	Introductory Plant Physiology	1+1
7	H/AROMED-241	Aromatic and Medicinal Crops	1+1
8	H/EXTN-111	Fundamentals of Extension Education	1+1
9	H/EXTN-122	Agril. Communication and Journalism	0+1
10	H/EXTN-363	Entrepreneurship Development and Communication Skills	1+1
11	H/ECON-232	Horti-Business Management	2+0
12	H/ECON-111	Introductory Economics	2+0
13	H/STAT-121	Elementary Statistics	1+1
14	H/COMP-111	Computer Application	1+1
		Total	16+12=28
		Grand Total	67+53=120

Annexure: “E”
Syllabus for CET in Home Science Stream for 100%
List of the courses for CET along with weightage

Sr. No.	Course No.	Course Title	Credits	Weightage
1	FSN 111	Elements of Food science	2+1	8
2	FRM 111	Management of Family Resources	2+0	6
3	TAD 111	Fundamentals of clothing construction	1+2	8
4	HECM 111	Home Science Extension & Rural Development	2+1	8
5	HDFS 111	Life Span Development	2+1	8
6	FSN 122	Introduction to Human Nutrition	2+1	8
7	HDFS 122	Early Childhood Development, Care & Education	2+1	8
8	TAD 122	Textile Science & Care	2+1	8
9	FRM 122	Family Economics	1+1	5
10	FRM 123	Consumer Education	1+1	5
11	HECM 122	Communication & Instructional Technology	1+2	8
12	FSN 233	Normal and Therapeutic Nutrition	2+1	8
13	FRM 234	Housing and space Management	1+2	8
14	HDFS 233	Children with Developmental Challenges	2+1	8
15	HECM 233	Diffusion and adoption of Home stead technology	2+1	8
16	TAD 233	Apparel Designing & Construction	1+2	8
17	FSN 244	Food preservation and Storage	1+2	8
18	FRM 245	Fundamentals of Art & Design	1+2	8
19	TAD 244	Fundamentals of Textile Designing	2+1	8
20	HDFS 244	Dynamics of Marriage & Family	2+1	8
21	HECM 244	Programme Development	1+2	8
22	FSN ND 351*	Food Science	2+1	5
23	FSN ND 361*	Advanced Human Nutrition	3+0	5
24	FRM ID 351*	Space Designing-I (Residential)	1+2	5
25	FRM ID 361*	Interior Designing & Decoration	1+2	5
26	HDFS MEC 362*	Organisation & Management of ECCD Programmes	2+3	8
27	TAD TD 353*	Principles of Design Application	1+3	6
28	HE IT CM 353*	Training & Human Resource Development	1+3	6
		Total Credit	85	

*Specialization courses

Annexure: “F”

Section “A” : Syllabus for CET in Agricultural Biotechnology Stream for 80 %

A. Department of Plant Biotechnology

Sr. No.	Title	Credits
PB-111	Fundamentals of Genetics	2+1=3
PB-122	Cell Biology	2+1=3
PB-123	Introduction to Plant Biotechnology	2+1=3
PB-234	Plant Breeding Techniques	2+1=3
PB-235	Molecular Markers in Plant Breeding	1+1=2
PB-246	Plants Cell and Tissue Culture	2+1=3
PB-357	Biotechnology of Biotic and Abiotic Stress Resistance	2+1=3
PB-358	Biodiversity Conservation	2+1=3
PB-369	Introduction to Bioinformatics	1+2=3
PB-3610	Biosafety Issues	2+0=2
PB 4712	Techniques in Genetic Transformation	1+3=4
PB 4713	PCR Techniques and its Application	1+3=4
PB 4714	Legal issues in GMO' s and LMO' s	1+3=4
PB 4715	Plant Genomics	1+3=4
Total		22+22=44

B. Dept. of Biochemistry and Molecular Biology

Sr. No.	Title	Credits
Bio-111	Basic Biochemistry	2+1=3
Bio-122	Enzymology	2+1=3
Bio-123	Microbial Genetics	2+1=3
Bio-234	Molecular Biology	2+1=3
Bio-235	Plant Metabolic Pathways	2+1=3
Bio-236	Elements of Immunology	1+1=2
Bio-247	Techniques in Biochemistry and Molecular Biology	2+2=4
Bio-358	Recombinant DNA Technology	2+1=3
Bio-369	Molecular Plant Virology	2+1=3
BIO 4710	Advances in Recombinant Technology	1+3=4
BIO 4711	Secondary Metabolites of Commercial Importance	1+3=4
BIO 4712	Immunological techniques and its Application	1+3=4
BIO 4713	Proteins and Proteomics	1+3=4
BIO 4714	Enzyme Technology	1+3=4
Total		22+25=47

C. Department of Post –harvest and Food Biotechnology

Sr. No.	Title	Credits
FB-121	Human Nutrition	1+1=2
FB-232	Industrial Microbiology and Fermentation Technology	2+2=4
FB-243	Enzyme Biotechnology in Food Processing	2+1=3
FB-244	Post-harvest Biotechnology of Food Grains	2+1=3
FB-355	Technological Applications in Food Processing	1+1=2
FB-356	Post-harvest Biotechnology of Horticultural Crops	2+1=3
FB-367	Food and Nutrition Security of GM Food crops	1+1=2
FB 478	Cereal Biotechnology	2+2=4
FB 479	Fruit and Vegetable Biotechnology	2+2=4
FB 4710	Brewing Technology	1+3=4
FB 4711	Wine Technology	1+3=4
FB 4712	Patenting Inventions in Food Biotechnology	2+2=4
Total		19+20=39

D. Department of Animal Biotechnology

Sr. No.	Title	Credits
AB-231	Basics in Animal Biotechnology	2+1=3
AB-242	Animal Cell Culture	2+1=3
AB-243	Biotechnology of Ruminant Feed Utilization	2+1=3
AB-354	Dairy Process Biotechnology	2+1=3
AB-355	Livestock Genome	2+1=3
AB-366	Animal Genetic Engineering	2+1=3
AB 477	Techniques in Animal Cell Culture	1+3=4
AB 478	Transgenic for improvements in animals	1+3=4
AB 479	Artificial Insemination techniques	1+3=4
AB 4710	Advances in Dairy Microbiology	1+3=4
AB 4711	Probiotics in milk and milk products	1+3=4
Total		17+21=38

E. Department of Crop Science

Sr. No.	Title	Credits
CS 111	Principles of Plant Physiology	2+1=3
CS 112	Field Crop Production	2+1=3
CS 113	Introductory Entomology	1+1=2
CS 124	Fundamentals of Plant Pathology	1+1=2
CS 125	Agricultural Microbiology	1+1=2
CS 126	Horticultural Crop Production	2+1=3
CS 237	Greenhouse Technology and Protected cultivation	1+1=2
CS 248	BioStatistics	1+1=2
CS 249	Intellectual Property Rights	1+0=1
CS 3510	Computer Application in Biotechnology	1+2=3
CS 3611	Management of Major Insect Pests and Diseases of Field and Horticultural Crops	1+1=2
CS 3612	Marketing and Export of Biotechnological Products	1+1=2
Total		15+12=27
Total Credit		95+100=195

Syllabus for CET Agricultural Biotechnology for 20%
Section “B”: Syllabus of following courses of B.Sc. (Agri.) for 8% weightage

Subject	Course No.	Title	Credits
Agronomy	AGRO-111	Principles of Agronomy	1+1=2
	AGRO-112	Agricultural Meteorology	1+1=2
	AGRO-113	Introductory Agriculture (Ancient heritage, agricultural scenario and gender equity in Agriculture)	1+0=1
	AGRO-124	Water Management including Micro irrigation	2+1=3
	AGRO-235	Field Crops – (I) (Kharif Crops)	2+1=3
	AGRO-247	Field Crops-(II) (Rabi Crops)	2+1=3
	AGRO-359	Weed Management	1+1=2
	AGRO-3610	Farming Systems and Sustainable Agriculture	1+1=2
	AGRO-3611	Organic and Rainfed farming	1+1=2
Total			12+8=20
Botany	BOT-111	Environmental Science	1+1=2
	BOT-122	Principles of genetics	2+1=3
	BOT-233	Principles of Plant Breeding	2+1=3
	BOT-234	Crop Physiology	2+1=3
	BOT-245	Breeding of field and Horticultural crops	2+1=3
	BOT-356	Principles of Plant Biotechnology	2+1=3
	BOT-367	Principles of Seed Technology	2+1=3
Total			13+7=20
Soil Science	SSAC-111	Introduction to Soil Science	2+1=3
	SSAC-122	Soil Chemistry, Soil Fertility and Nutrient Management	2+1=3
	SSAC-243	Manures, Fertilizers and Agrochemicals	2+1=3
	SSAC-354	Biochemistry	2+1=3
Total			8+4=12
Plant Pathology	PATH-111	Introductory Plant Pathology	1+1=2
	MIBO-121	Agricultural Microbiology	2+1=3
	PATH-232	Principles of Plant Pathology	1+1=2
	PATH-243	Diseases of Field Crops and their Management	2+1=3
	PATH-354	Diseases of Horticultural Crops and their Management	2+1=3
Total			8+5=13
Horticulture	HORT-111	Production Technology of Fruit Crops	2+1=3
	HORT-232	Production Technology of Vegetables and Flowers	1+1=2
	HORT-243	Production Technology of Spices, Aromatics, Medicinal and Plantation Crops	1+1=2

	HORT-364	Post Harvest Management and Value addition of Fruits	1+1=2
Total			5+4=9
Animal Science & Dairy Science	AHDS-111	Livestock Production and Management	1+1=2
	AHDS-242	Livestock Breeding and Nutrition	1+1=2
	AHDS-353	Technology of milk and milk Products	1+1=2
Total			3+3=6
Agricultural Entomology	ENT-231	Insect Morphology and Systematic	2+1=3
	ENT-242	Insect Ecology, Integrated Pest Management and Beneficial Insects	2+1=3
	ENT-353	Crop Pests and Stored Grain Pests and their Management	2+1=3
Total			6+3=9
Grand Total			55+34=89

Section “C” : Syllabus of following courses of B.Sc. (Hort.) for 3% weightage

Division of Fruit Science

Sr. No.	Course No.	Course title	Credits
1	H/FS-231	Tropical and Subtropical Fruits	2+1
2	H/FS-242	Breeding of Fruit and Plantation Crops	2+1
3	H/FS-243	Arid Fruit Crops	1+1
4	H/FS-354	Temperate and Plantation Fruit Crops	2+1
5	H/HORT-111	Fundamentals of Horticulture	2+1
6	H/HORT-122	Plant Propagation and Nursery Management	2+1
Total			11+6=17

Division of Vegetable Science

Sr. No.	Course No.	Course title	Credits
1	H/Vs-231	Tropical and Subtropical Vegetable Crops	2+1
2	H/Vs-242	Temperate Vegetable Crops	1+1
3	H/Vs-353	Breeding of Vegetable Crops	2+1
4	H/Vs-364	Seed Production of Vegetable Crops	2+1
5	H/Vs-365	Protected Cultivation of Vegetable Crops	1+1
6	H/SPICON-231	Spices and Condiments	1+1
Total			9+6=15

Division of Floriculture and Landscaping

Sr. No.	Course No.	Course title	Credits
1	H/FL-111	Ornamental Horticulture	1+1
2	H/FL-232	Landscape Gardening	1+1
3	H/FL-243	Commercial Floriculture	2+1
4	H/FL-354	Protected Cultivation of Flower Crops	1+1
5	H/FL-365	Breeding and Seed Production of Ornamental Plants	1+1
Total			6+5=11

Division of Post Harvest Technology

Sr. No.	Course No.	Course title	Credits
1	H/PHT-231	Post Harvest Management of Horticultural Crops	2+1
2	H/PHT-362	Processing and Value Addition of Horticultural Crops	1+2
Total			3+3=6

Division of Plant Protection

Sr. No.	Course No.	Course title	Credits
1	H/PATH-121	Fundamentals of Plant Pathology	1+1
2	H/PATH-232	Diseases of Vegetable, Ornamental and Spice Crops	2+1
3	H/PATH-242	Diseases of Fruits, Plantation, Aromatic and Medicinal Crops	2+1
4	H/MIBO-111	Introductory Microbiology	1+1
5	H/MIBO-362	Applied Microbiology	0+1
6	H/ENTO-121	Fundamentals of Entomology	1+1
7	H/ENTO-352	Insect Pest Management of Fruit, Plantation, Medicinal and Aromatic Plants	2+1
8	H/ENTO-353	Insect Pest Management of Vegetable, Ornamental and Spice Crops	2+1
9	H/ENTO-364	Nematode Pests of Horticultural Crops and their Management	1+1
Total			12+9=21

Division of Natural Resource Management

Sr. No.	Course No.	Course title	Credits
1	H/SSAC-111	Fundamentals of Soil Science	1+1
2	H/SSAC-232	Fundamentals of Bio-chemistry	1+1
3	H/SSAC-122	Soil Fertility and Nutrient Management	2+1
4	H/BOT-354	Environmental Science and Agro-ecology	1+1
5	H/AGRO-121	Water Management of Horticultural Crops	1+1
6	H/AGRO-232	Weed Management in Horticultural Crops	1+1
7	H/AGRO-243	Organic Farming	1+1
8	H/AGROMET-111	Agriculture Meteorology	1+1
9	H/ENGG-351	Farm Power and Machinery	1+1
Total			10+9=19

Division of Basic Science & Humanities

Sr. No.	Course No.	Course title	Credits
1	H/HORT-123	Growth and Development of Horticultural Crops	1+1
2	H/HORT-354	Introductory Agroforestry and Horti-silvipasture	1+1
3	H/BIOT-361	Fundamentals of Bio-technology	1+1
4	H/BOT-111	Principles of Genetics and Cytogenetics	2+1
5	H/BOT-122	Principles of Plant Breeding	1+1
6	H/BOT-123	Introductory Plant Physiology	1+1
7	H/AROMED-241	Aromatic and Medicinal Crops	1+1
Total			8+7=15
Grand Total			59+45=104

Section “D ” : Syllabus of following courses of B.Sc. Forestry for 3 % weightage

Sr. No.	Name of department/ Discipline	No. of Credits
1.	Agricultural Sciences	16
	Agricultural Botany	7
	F/BOT – 111 Principles of Cytology and Genetics	2(1+1)
	• F/BOT – 112 Principles of Plant Physiology	2(1+1)
	• F/ BOT – 113 Introductory Botany	3(2+1)
	Soil Science	4
	F/SSAC – 111 Fundamentals of Geology and Soil Science	2(1+1)
	F/SSAC– 232 Fundamentals of Biochemistry	2(1+1)
	Horticulture	3
	F/HORT – 111 Fundamentals of Horticulture	3(2+1)
	Biotechnology	2
	F/ BIOT-361 Fundamentals of Biotechnology	2 (1+1)
2.	Forest Biology and Tree Improvement	23
	FBT – 121 Dendrology	3 (2+1)
	FBT – 122 Forest Ecology, Biodiversity and Conservation	3(2+1)
	FBT – 123 Tree Physiology	2(1+1)
	FBT – 234 Principles of Tree Improvement	3 (2+1)
	FBT – 235 Tree Seed Technology	2 (1+1)
	FBT – 246 Fundamentals of Wildlife	2 (2+0)
	FBT – 247 Forest Pathology	3 (2+1)
	FBT – 358 Wild Life Management	2 (1+1)
	FBT – 369 Forest Entomology and Nematology	3(2+1)
3.	Silviculture and Agroforestry	24
	SAF – 121 Principle and Practices of Silviculture	4(3+1)
	SAF – 232 Forest Mensuration	3(2+1)

	SAF – 233 Nursery Management	2(1+1)
	SAF – 244 Silviculture of Indian Trees	3 (2+1)
	SAF – 245 World Forestry Systems	2(2+0)
	SAF – 356 Silvicultural Systems	2(2+0)
	SAF – 357 Plantation Forestry and Wasteland Development	2(1+1)
	SAF – 358 Environmental Science	3 (2+1)
	SAF – 369 Agro forestry System and Management	3 (2+1)
4.	Forest Product Utilization	18
	FPU – 121 Ethnobotany	3 (2+1)
	FPU – 232 Wood Anatomy	2 (1+1)
	FPU – 233 Logging and Ergonomics	2 (1+1)
	FPU – 244 Wood Science and Technology	3 (2+1)
	FPU – 245 Wood Products and Utilization	2 (1+1)
	FPU – 356 Medicinal and Aromatic Plants	3 (2+1)
	FPU – 367 Utilization of Non-Timber Forest Products	3 (2+1)
5.	Natural Resource Management	23
	NRM – 121 Chemistry and Fertility of Forest Soils	3 (2+1)
	NRM – 232 Forest Engineering and Survey	2 (1+1)
	NRM – 233 Soil Survey and Remote sensing	3 (2+1)
	NRM – 244 Forest Tribology and Anthropology	2 (2+0)
	NRM – 355 Rangeland Management	3 (2+1)
	NRM – 356 Principles of Forest Economics, Project Planning and Evaluation	2 (1+1)
	NRM – 367 Forest Management, Policy and Legislation	3 (2+1)
	NRM – 368 Forest Business Management	2 (1+1)
	NRM -369 Marketing and Trade of Forest Produce	3 (2+1)
	Grand Total	67+37=104

Section “E”: Syllabus of following courses of B.Tech. (Food Science) for 3% weightage

Department of Food Science and Technology

Sr. No.	Course No.	Course Title	Credits
1	FST-111	Principles of Food Processing	2+1=3
2	FST-112	Food Production Trends and Programs	2+0=2
3	FST-123	Post harvest Management of Fruit and Vegetable	2+1=3
4	FST-124	Cereal Processing	2+1=3
5	FST-235	Legume and Oilseed Technology	2+1=3
6	FST-236	Meat, Poultry and Fish Technology	2+1=3
7	FST-237	Wheat Milling and Baking Technology	2+1=3
8	FST-238	Confectionery Technology	1+1=2
9	FST-249	Fruit and Vegetable Processing	2+1=3
10	FST-2410	Food Quality	1+1=2
11	FST-2411	Processing of Milk and Milk Products	1+1=2
12	FST-2412	Spice and Flavor Technology	2+1=3
13	FST-3513	Food Industry By-Products and Waste Utilization	1+1=2
14	FST-3514	Carbonated Beverage Technology	1+1=2
15	FST-3615	Product Development and Formulation	1+1=2
16	FST-3616	Speciality Foods	2+1=3
17	FST-3617	Extrusion Technology	1+1=2
18	FST-3618	Quality Assurance and Certification	2+1=3
Total			29+17= 46

Department of Food Chemistry and Nutrition

Sr. No.	Course No.	Course Title	Credits
1	FCN-111	Bio-chemistry	2+1=3
2	FCN-112	Food Chemistry-I	2+1=3
3	FCN-123	Food Chemistry –II	2+1=3
4	FCN-124	Human Nutrition	2+1=3
5	FCN-235	Techniques in Food Analysis	1+2=3
6	FCN-246	Food Additives	2+1=3
7	FCN-247	Environmental Science	2+1=3
Total credits			13+8= 21

Department of Food and Industrial Microbiology

Sr. No.	Course No.	Course Title	Credits
1	FIM-111	Fundamentals of Microbiology	2+1=3
2	FIM-122	Food Microbiology	2+1=3
3	FIM-233	Fermentation and Industrial Microbiology	2+1=3
4	FIM-244	Food Safety and Microbial Standards	2+1=3
5	FIM-355	Food Bio-technology	2+1=3
6	FIM-366	Food Hygiene and Sanitation	2+1=3
Total credits			12+6= 18

Department of Food Trade and Business Management

Sr. No.	Course No.	Course Title	Credits
1	FTBM-351	Co-operation, Marketing and Finance	2+1=3
2	FTBM-352	Business Management and International Trade	2+0=2
	FTBM-363	Entrepreneurship Development and Communication Skills	1+1=2
4	FTBM-364	Food Laws and Regulations	2+1=3
		Total credits	7+3=10
		Grand Total	61+34=95

Section “F”: Syllabus of following courses of B.F.Sc. for 3 % weightage

AQUACULTURE

PRINCIPLES OF AQUACULTURE
 FRESHWATER AQUACULTURE
 FISH NUTRITION AND FEED TECHNOLOGY
 CULTURE OF FISH FOOD ORGANISMS
 ORNAMENTAL FISH PRODUCTION AND MANAGEMENT
 COASTAL AQUACULTURE AND MARICULTURE
 FINFISH BREEDING AND HATCHERY MANAGEMENT SHELLFISH
 BREEDING AND HATCHERY MANAGEMENT
 DISEASES AND MANAGEMENT
 BIOTECHNOLOGY AND BIOINFORMATICS
 GENETICS AND BREEDING

FISHERIES BIOLOGY

TAXONOMY OF FINFISH
 ANATOMY AND BIOLOGY OF FINFISH
 TAXONOMY OF SHELLFISH
 ANATOMY AND BIOLOGY OF SHELLFISH
 INLAND FISHERIES
 PHYSIOLOGY OF FINFISHES AND SHELLFISHES
 MARINE FISHERIES
 FISH STOCK ASSESSMENT AND MANAGEMENT

Fisheries Technology

PRINCIPLES OF BIOCHEMISTRY
 FUNDAMENTALS OF MICROBIOLOGY
 FOOD CHEMISTRY AND FISH IN NUTRITION
 BIOCHEMICAL TECHNIQUES AND INSTRUMENTATION
 FREEZING TECHNOLOGY
 THERMAL PROCESSING AND PACKAGING TECHNOLOGY
 FISH PRODUCT AND BY PRODUCT TECHNOLOGY
 FISHERY MICROBIOLOGY AND QUALITY ASSURANCE

Annexure: “G”

Syllabus for CET in Agricultural Engineering Stream for 100 %

1) Basic Science and Computer Technology

Course Number	Course Title	Credits
BS-MATH-111	Engineering Mathematics-I	3(2+1)
BS-PHY-112	Engineering Physics	3(2+1)
BS-CT-113	Computer Programming and Data Structures	3(1+2)
BS-MATH-124	Engineering Mathematics-II	3(2+1)
BS-CT-125	Database Management and Internet Applications	2(0+2)
BS-MATH-236	Engineering Mathematics-III	3(2+1)
BS-STAT-237	Statistical Methods	2(1+1)
	Total	19(10+9)

2) Agricultural Science

Course Number	Course Title	Credits
AG-111	Agronomy	2(1+1)
AG-112	Horticulture	2(1+1)
AG-113	Animal Sciences and Dairy Science	2(1+1)
AG-124	Soil Science	2(1+1)
AG-245	Agribusiness Management and Trade	2(2+0)
AG-366	Entrepreneurship Development and Communication Skills	2(1+1)
	Total	12(7+5)

3) Department of Farm Machinery and Power

Course Number	Course Title	Credits
FMP-111	Workshop Practice	2(0+2)
FMP-112	Engineering Drawing	2(0+2)
FMP-123	Workshop Technology	2(1+1)
FMP-124	Machine Drawing and Computer Graphics	2(0+2)
FMP-235	Theory of Machines	3(2+1)
FMP-236	Farm Power	2(1+1)
FMP-247	Farm Machinery and Equipment-I	2(1+1)
FMP-248	Tractor System and Control	2(1+1)
FMP-359	Farm Machinery and Equipment-II	2(1+1)
FMP-3610	Machine Design	3(2+1)
FMP-3611	Field Operation and Maintenance of Tractor and Farm Machinery	1(0+1)
	Total	23(9+14)

4) Department of Soil and Water Conservation Engineering

Course Number	Course Title	Credits
SWCE-121	Surveying and Leveling	3(1+2)
SWCE-232	Soil Mechanics	3(2+1)
SWCE-233	Watershed Hydrology	3(2+1)
SWCE-244	Soil and Water Conservation Engineering	3(2+1)
SWCE-355	Soil and Water Conservation Structures	3(2+1)
SWCE-366	Watershed Planning and Management	3(2+1)
	Total	18(11+7)

5) Department of Irrigation and Drainage Engineering

Course Number	Course Title	Credits
IDE-231	Fluid Mechanics	3(2+1)
IDE-242	Irrigation Engineering	3(2+1)
IDE-353	Groundwater, Wells and Pumps	3(2+1)
IDE-354	Drainage Engineering	3(2+1)
IDE-365	Advanced Irrigation System Design	2(1+1)
IDE-366	Minor Irrigation and Command Area Development	3(2+1)
	Total	17(11+6)

6) Department of Agricultural Process Engineering

Course Number	Course Title	Credits
APE-121	Thermodynamics	3(2+1)
APE-232	Engineering Properties of Biological Materials and Food Quality	2(1+1)
APE-243	Heat and Mass Transfer	2(1+1)
APE-244	Crop Process Engineering	3(2+1)
APE-355	Dairy and Food Engineering	3(2+1)
APE-356	Drying of Farm Crop	2(1+1)
APE-357	Storage Engineering	2(1+1)
APE-368	Refrigeration and Air Conditioning	2(1+1)
	Total	19(11+8)

7) Department of Farm Structure

Course Number	Course Title	Credits
FS-121	Engineering Mechanics	3(2+1)
FS-242	Building Materials	2(1+1)
FS-353	Strength of Material	3(2+1)
FS-354	Agricultural Structures and Environmental Control	3(2+1)
FS-365	Design of Structures	3(2+1)
	Total	14(9+5)

8) Department of Electrical and Other Energy Sources

Course Number	Course Title	Credits
EOES-111	Engineering Chemistry	2(1+1)
EOES-122	Applied Electronics and Instrumentation	3(2+1)
EOES-233	Electrical Circuits	3(2+1)
EOES-244	Electrical Machines and Power Utilization	3(2+1)
EOES-365	Renewable Energy Sources	3(2+1)
	Total	14(9+5)
	Total credit	136(77+59)

Annexure: “H”

Syllabus for CET in B.Tech Food Science Stream for 100 %

Department of Food Science and Technology

Sr. No.	Course No.	Course Title	Credits
1	FST-111	Principles of Food Processing	2+1=3
2	FST-112	Food Production Trends and Programs	2+0=2
3	FST-123	Post harvest Management of Fruit and Vegetable	2+1=3
4	FST-124	Cereal Processing	2+1=3
5	FST-235	Legume and Oilseed Technology	2+1=3
6	FST-236	Meat, Poultry and Fish Technology	2+1=3
7	FST-237	Wheat Milling and Baking Technology	2+1=3
8	FST-238	Confectionery Technology	1+1=2
9	FST-249	Fruit and Vegetable Processing	2+1=3
10	FST-2410	Food Quality	1+1=2
11	FST-2411	Processing of Milk and Milk Products	1+1=2
12	FST-2412	Spice and Flavor Technology	2+1=3
13	FST-3513	Food Industry By-Products and Waste Utilization	1+1=2
14	FST-3514	Carbonated Beverage Technology	1+1=2
15	FST-3615	Product Development and Formulation	1+1=2
16	FST-3616	Specialty Foods	2+1=3
17	FST-3617	Extrusion Technology	1+1=2
18	FST-3618	Quality Assurance and Certification	2+1=3
		Total	29+17= 46

Department of Food Chemistry and Nutrition

Sr. No.	Course No.	Course Title	Credits
1	FCN-111	Bio-chemistry	2+1=3
2	FCN-112	Food Chemistry-I	2+1=3
3	FCN-123	Food Chemistry –II	2+1=3
4	FCN-124	Human Nutrition	2+1=3
5	FCN-235	Techniques in Food Analysis	1+2=3
6	FCN-246	Food Additives	2+1=3
7	FCN-247	Environmental Science	2+1=3
		Total credits	13+8= 21

Department of Food and Industrial Microbiology

Sr. No.	Course No.	Course Title	Credits
1	FIM-111	Fundamentals of Microbiology	2+1=3
2	FIM-122	Food Microbiology	2+1=3
3	FIM-233	Fermentation and Industrial Microbiology	2+1=3

4	FIM-244	Food Safety and Microbial Standards	2+1=3
5	FIM-355	Food Bio-technology	2+1=3
6	FIM-366	Food Hygiene and Sanitation	2+1=3
		Total credits	12+6= 18

Department of Food Engineering

Sr. No.	Course No.	Course Title	Credits
1	FE-111	Engineering Drawing	0+1=1
2	FE-112	Fluid Mechanics and Hydraulics	1+1=2
3	FE-123	Energy Generation and Conservation	2+1=3
4	FE-124	Heat and Mass Transfer	1+1=2
5	FE-235	Food Processing Equipments-I	2+1=3
6	FE-236	Food Packaging	2+1=3
7	FE-247	Food Processing Equipments-II	2+1=3
8	FE-358	Refrigeration Engineering and Cold Chain	2+1=3
9	FE-359	Bio-Chemical Engineering	2+1=3
10	FE-3510	Instrumentation and Process Control	2+1=3
11	FE-3611	Food Plant Design and Layout	1+2=3
		Total credits	17+12=29

Department of Food Trade and Business Management

Sr. No.	Course No.	Course Title	Credits
1	FTBM-351	Co-operation, Marketing and Finance	2+1=3
2	FTBM-352	Business Management and International Trade	2+0=2
3	FTBM-363	Entrepreneurship Development and Communication Skills	1+1=2
4	FTBM-364	Food Laws and Regulations	2+1=3
		Total credits	7+3=10
		Grand Total	78+46=124

Annexure: "I"

Section "A":Syllabus for CET in B.B.M. (Agri.) Stream for 80 %

1. Departments of Agricultural and Allied Sciences

Sr. No.	Course No.	Course Title	Credits
1	AGRO-111	Agro-Techniques of Principal Crops and Agro-Meteorology	3=2+1
2	AGRO-122	Farming Systems and Sustainable Agriculture	2=2+0
3	AGRO-233	Irrigation Water Management	2=1+1
4	HORT- 111	Production Management of Important Fruit Crops	2=1+1
5	HORT-232	Production Management of Important Vegetable and Floricultural Crops	2=1+1
6	HORT-243	Post Harvest Technology of Horticultural crops	3=2+1
7	BOT-111	Principles of Plant Biotechnology	2=1+1
8	BOT-122	Environmental Science	2=1+1
9	SSAC-121	Soil Fertility, Fertilizers and Nutrient Management	2=1+1
10	SSAC-232	Soil, Water and Plant analysis	2=0+2
11	ASDS- 231	Animal Production Management	2=1+1
12	ASDS-242	Value Addition in Animal Products	2=1+1
13	ENGG-121	Farm Structures and Green House technology	2=1+1
14	ENGG-232	Post-Harvest Technology of Cereals, Pulses, Oilseeds and Cash crops	2=1+1
15	ENT- 121	Integrated Pest Management	2=1+1
16	PATH-231	Integrated Disease Management	2=1+1
17	PATH-362	Bio-fertilizers and Mushroom Production	2=1+1
18	EXTN-121	Entrepreneurship and Personality Development	2=2+0
19	EXTN-232	Communication Skills and Market-Led Extension for Business Management	2=1+1
20	EXTN-243	Consumers Psychology in Business Management	2=1+1
21	EXTN-354	Information Technology in Agri- Business	2=1+1
22	EXTN-365	Organizational Behaviour for Business Management	2=2+0
23	COMP- 111	Introduction to Computer Applications	2=1+1
24	STAT-241	Business Statistics	3=2+1
		Total	51=29+22

2. Department of Agricultural Economics

Sr. No.	Course No.	Course Title	Credits
1	ECON- 111	Agricultural Economics and Natural Resource Economics	3=2+1
3	ECON- 112	Structure and Dynamics of Indian Agriculture	2=2+0
2	ECON-123	Farm Business Management	2=1+1
4	ECON-124	Money, Banking and International Trade	2=1+1

5	ECON-235	Agril. Co-operation, Institutions and Management	3=2+1
7	ECON- 246	Indian Agricultural Policies	2=2+0
6	ECON-357	Input-Output Measurement Techniques	2=1+1
8	ECON- 358	Research Methods in Social Sciences	2=1+1
9	ECON-369	Planning, Formulation and Evaluation of Business Projects	3=1+2
10	ECON-3610	Financial Management in Agri- Business	3=2+1
		Total	24 = 15 + 9

3. Department of Agricultural Marketing

Sr. No.	Course No.	Course Title	Credits
1	MKT-121	Introduction to Agricultural Marketing	2=1+1
3	MKT-232	Marketing Institutions and Organizations	3=2+1
2	MKT-233	Input Marketing Management	3=2+1
4	MKT-244	Rural Marketing and Market Infrastructure	3=2+1
5	MKT-245	Retail Marketing	3=2+1
7	MKT-356	Trading of Agricultural Commodities-I	2=1+1
6	MKT-357	Market and Trade Acts	2=2+0
8	MKT-368	Trading of Agricultural Commodities-II	2=1+1
		Total	20 = 13 +7

4. Department of Agri-Business Management

Sr. No.	Course No.	Course Title	Credits
1	ABM- 111	Introduction to Agri-Business Management	2=1+1
2	ABM-122	Agro-based Industrialization	2=2+0
3	ABM-233	Office Procedures for Agri-Business	1=0+1
4	ABM-244	Disaster Management in Agriculture	2=1+1
5	ABM-355	Inventory and Risk Management	2=1+1
6	ABM-356	Agro-tourism	2=1+1
7	ABM-357	Production Management, Planning and Control	2=1+1
8	ABM- 358	Agro-Processing Managements	2=1+1
9	ABM-359	Marketing and Management Policies	2=1+1
10	ABM-3610	Agri-Business Operations, HRD and Strategic Management	2=2+0
11	ABM-3611	Product Promotion Methods	2=1+1
12	ABM-3612	Managerial Accounting	2=1+1
13	ABM-3613	Market Survey and Price Analysis	2=0+2
		Total	25=13+12
		GRANT TOTAL	120 =70 +50

Syllabus for CET B.B.M. (Agri.) for 20%

SECTION “B”: Syllabus of following courses of B.Tech. (Food Technology) for 2.50% weightage

1. Department of Food Science and Technology

Sr. No.	Course No.	Course Title	Credits
1	FST-111	Principles of Food Processing	2+1=3
2	FST-112	Food Production Trends and Programs	2+0=2
3	FST-123	Postharvest Management of Fruit and Vegetable	2+1=3
4	FST-124	Cereal Processing	2+1=3
5	FST-235	Legume and Oilseed Technology	2+1=3
6	FST-236	Meat, Poultry and Fish Technology	2+1=3
7	FST-237	Wheat Milling and Baking Technology	2+1=3
8	FST-238	Confectionery Technology	1+1=2
9	FST-249	Fruit and Vegetable Processing	2+1=3
10	FST-2410	Food Quality	1+1=2
11	FST-2411	Processing of Milk and Milk Products	1+1=2
12	FST-2412	Spice and Flavour Technology	2+1=3
13	FST-3513	Food Industry By-Products and Waste Utilization	1+1=2
14	FST-3514	Carbonated Beverage Technology	1+1=2
15	FST-3615	Product Development and Formulation	1+1=2
16	FST-3616	Speciality Foods	2+1=3
17	FST-3617	Extrusion Technology	1+1=2
18	FST-3618	Quality Assurance and Certification	2+1=3
		Total	29+17= 46

2. Department of Food Chemistry and Nutrition

Sr. No.	Course No.	Course Title	Credits
1	FCN-111	Bio-chemistry	2+1=3
2	FCN-112	Food Chemistry-I	2+1=3
3	FCN-123	Food Chemistry –II	2+1=3
4	FCN-124	Human Nutrition	2+1=3
5	FCN-235	Techniques in Food Analysis	1+2=3
6	FCN-246	Food Additives	2+1=3
7	FCN-247	Environmental Science	2+1=3
		Total	13+8 = 21

3. Department of Food and Industrial Microbiology

Sr. No.	Course No.	Course Title	Credits
1	FIM-111	Fundamentals of Microbiology	2+1=3
2	FIM-122	Food Microbiology	2+1=3
3	FIM-233	Fermentation and Industrial Microbiology	2+1=3
4	FIM-244	Food Safety and Microbial Standards	2+1=3

5	FIM-355	Food Bio-technology	2+1=3
6	FIM-366	Food Hygiene and Sanitation	2+1=3
		Total	12+6= 18

4. Department of Food Engineering

Sr. No.	Course No.	Course Title	Credits
1	FE-111	Engineering Drawing	0+1=1
2	FE-112	Fluid Mechanics and Hydraulics	1+1=2
3	FE-123	Energy Generation and Conservation	2+1=3
4	FE-124	Heat and Mass Transfer	1+1=2
5	FE-235	Food Processing Equipments-I	2+1=3
6	FE-236	Food Packaging	2+1=3
7	FE-247	Food Processing Equipments-II	2+1=3
8	FE-358	Refrigeration Engineering and Cold Chain	2+1=3
9	FE-359	Bio-Chemical Engineering	2+1=3
10	FE-3510	Instrumentation and Process Control	2+1=3
11	FE-3511	Food Plant Design and Layout	1+2=3
		Total	17+12=29

5. Department of Food Trade and Business Management

Sr. No.	Course No.	Course Title	Credits
1	FTBM-351	Co-operation, Marketing and Finance	2+1=3
2	FTBM-352	Business Management and International Trade	2+0=2
3	FTBM-363	Entrepreneurship Development and Communication Skills	1+1=2
4	FTBM-364	Food Laws and Regulations	2+1=3
5	FTBM-365	Seminar	0+1=1
		Total	7+4=11
		GRAND TOTAL	78+47 =125

SECTION "C": Syllabus of following courses of B.F.Sc. for 2.50% weightage

Sr. No.	Course No.	Name of the Department	Credits
1. DEPARTMENT : AQUACULTURE			
1	AQ.CUL. 111	Principles of Aquaculture	1+1=2
2	AQ.CUL. 122	Freshwater Aquaculture	2+1=3
3	AQ.CUL. 213	Fish Nutrition and Feed Technology	2+1=3
4	AQ.CUL. 214	Culture of fish food organisms	1+1=2
5	AQ.CUL. 225	Ornamental Fish Production and Management	1+1=2
6	AQ.CUL. 226	Coastal Aquaculture and Mari culture	2+1=3

7	AQ.CUL. 317	Finfish Breeding and Hatchery Management	2+1=3
8	AQ.CUL. 318	Shellfish Breeding and Hatchery Management	2+1=3
9	AQ.CUL. 319	Diseases and Management	2+2=4
10	AQ.CUL. 321	Biotechnology and Bio-informatics	1+1=2
11	AQ.CUL. 322	Generics and Breeding	1+1=2
		Total	17+12=29

2. DEPARTMENT : FISHERIES BIOLOGY			
1	F.BIOL. 111	Taxonomy of Finfish	1+2=3
2	F.BIOL.112	Anatomy and Biology of Finfish	2+1=3
3	F.BIOL.123	Taxonomy of Shellfish	1+2=3
4	F.BIOL.124	Anatomy and Biology of Shellfish	2+1=3
5	F.BIOL.215	Inland Fisheries	2+1=3
6	F.BIOL.226	Physiology of Finishes and Shellfishes	2+1=3
7	F.BIOL.317	Marine Fisheries	2+1=3
8	F.BIOL.328	Fish Stock Assessment and Management	2+1=3
		Total	14+10=24

3. DEPARTMENT : FISHERIES HYDROGRAPH			
1	F.HY.111	Meteorology and Geography	1+1=2
2	F.HY.112	Techniques of Soil Analysis	1+1=2
3	F.HY.113	Limnology	2+1=3
4	F.HY.124	Physical Oceanography	2+1=3
5	F.HY.125	Chemical Oceanography	1+1=2
6	F.HY.226	Marine biology	1+1=2
7	F.HY.317	Aquatic Biodiversity	2+1=3
8	F.HY.328	Aquatic Pollution	1+1=2
9	F.HY.329	Coastal Zone Management	1+0=1
		Total	12+8=20

4. DEPARTMENT : FISH PROCESSING TECHNOLOGY AND MICROBIOLOGY			
1	F.TECH.111	Principles of Biochemistry	1+1=2
2	F.TECH.112	Fundamentals of Microbiology	1+1=2
3	F.TECH.123	Food Chemistry and Fish in Nutrition	2+1=3
4	F.TECH.124	Biochemical Techniques and Instrumentation	1+1=2
5	F.TECH.215	Freezing Technology	2+1=3
6	F.TECH.226	Thermal Processing and Packaging Technology	2+1=3
7	F.TECH.317	Fish product and by product technology	2+2=4
8	F.TECH.328	Fishery Microbiology and Quality Assurance	2+2=4
		Total	13+10=23

5. DEPARTMENT: FISH ENGINEERING			
1	F.ENGG. 121	Fishing Craft Technology	1+1=2
2	F.ENGG. 212	Fishing Gear Technology	1+1=2
3	F.ENGG. 213	Navigation and Seamanship	1+1=2
4	F.ENGG. 224	Fishing Technology	1+1=2

5	F.ENGG. 225	Aquaculture Engineering	1+1=2
6	F.ENGG. 316	Refrigeration and Equipment Engineering	1+1=2
		Total	6+6=12

6. DEPARTMENT : FISHERIES RESOURCES, ECONOMICS, STATISTICS AND EXTENSION			
1	F.RESE. 111	Information and Communication Technology	1+1=2
2	F.RESE.112	Elements of Statistics	1+1=2
3	F.RESE.123	Business Organization and Personnel Management	1+0=1
4	F.RESE.214	Fisheries Economics	2+1=3
5	F.RESE.215	Rural Sociology and Extension Education	1+1=2
6	F.RESE.216	Disaster Management	1+1=2
7	F.RESE.227	Statistical Methods	1+1=2
8	F.RESE.228	Extension Programme Planning	2+1=3
9	F.RESE.321	Marketing Management	1+1=2
10	F.RESE.322	Entrepreneurship Development and Finance	1+2=3
11	F.RESE.329	Fisheries Administration and Legislation	2+0=2
		Total	14+10=24

SECTION “D”: Syllabus of following courses of B.Sc. (Home Science) for 2.50% weightage

Sr. No.	Course No.	Course Title	Credits
1	FSN- 111	Elements of Food science	2+1
2	FRM- 111	Management of Family Resource	2+0
3	TAD- 111	Fundamentals of clothing construction	1+2
4	HECM- 111	Home Science Extension and Rural Development	2+1
5	HDFS-111	Life Span Development	2+1
6	FSN-122	Introduction to Human Nutrition	2+1
7	HDFS-122	Early Childhood Development, Care and Education	2+1
8	TAD-122	Textile Science and Care	2+1
9	FRM-122	family economics	1+1
10	FRM-123	Consumer Education	1+1
11	HECM- 122	Communication and Instructional Technology	1+2
12	FSN -233	Normal and Therapeutic Nutrition	2+1
13	FRM- 234	Housing and space Management	1+2
14	HDFS- 233	Children with Developmental Challenges	2+1
15	HECM- 233	Diffusion and adoption of Home stead technology	2+1
16	TAD- 233	Apparel Designing and Construction	1+2
17	FSN- 244	Food preservation and Storage	1+2
18	FRM- 245	Fundamentals of Art and design	1+2
19	TAD- 244	Fundamentals of Textile Designing	2+1
20	HDFS- 244	Dynamics of Marriage and Family	2+1
21	HECM- 244	Programme Development	1+2
22	FSN ND- 351*	Food Science	2+1

23	FSN ND- 361*	Advanced Human Nutrition	3+0
24	FRM ID- 351*	Space Designing- (I (Residential)	1+2
25	FRM ID-361*	Interior Designing and Decoration	1+2
26	HDFS MEC-362*	Organization and Management Of ECCD Programmers	2+3
27	TAD TD- 353*	Principles of Design Application	1+3
28	HEIT CM- 353*	Training and Human Resource Development	1+3
GRAND TOTAL			85

SECTION “E”: Syllabus of following courses of B.Tech. (Agril. Engg.) for 2.50% weightage

1. Basic Science and Computer Technology

Sr. No.	Course No.	Course Title	Credits
1	BS-MATH-111	Engineering Mathematics-I	3=2+1
2	BS-PHY-112	Engineering Physics	3=2+1
3	BS-CT-113	Computer Programming and Data Structures	3=1+2
4	BS-MATH-124	Engineering Mathematics-II	3=2+1
5	BS-CT-125	Database Management and Internet Applications	2=0+2
6	PYE-121	Physical Education (Non Credit)	--
7	BS-MATH-236	Engineering Mathematics-III	3=2+1
8	BS-STAT-237	Statistical Methods	2=1+1
		Total	19=10+9

2. Department of Agricultural Science

Sr. No.	Course No.	Course Title	Credits
1	AG-111	Agronomy	2=1+1
2	AG-112	Horticulture	2=1+1
3	AG-113	Animal Sciences and Dairy Science	2=1+1
4	AG-124	Soil Science	2=1+1
5	AG-245	Agribusiness Management and Trade	2=2+0
6	AG-366	Entrepreneurship Development and Communication Skills	2=1+1
		Total	12=7+5

3. Department of Farm Machinery and Power

Sr. No.	Course No.	Course Title	Credits
1	FMP-111	Workshop Practice	2=0+2
2	FMP-112	Engineering Drawing	2=0+2
3	FMP-123	Workshop Technology	2=1+1
4	FMP-124	Machine Drawing and Computer Graphics	2=0+2

5	FMP-235	Theory of Machines	3=2+1
6	FMP-236	Farm Power	2=1+1
7	FMP-247	Farm Machinery and Equipment-I	2=1+1
8	FMP-248	Tractor System and Control	2=1+1
9	FMP-359	Farm Machinery and Equipment-II	2=1+1
10	FMP-3610	Machine Design	3=2+1
11	FMP-3611	Field Operation and Maintenance of Tractor and Farm Machinery	1=0+1
		Total	23=9+14

4. Department of Soil and Water Conservation Engineering

Sr. No.	Course No.	Course Title	Credits
1	SWCE-121	Surveying and Levelling	3=1+2
2	SWCE-232	Soil Mechanics	3=2+1
3	SWCE-233	Watershed Hydrology	3=2+1
4	SWCE-244	Soil and Water Conservation Engineering	3=2+1
5	SWCE-355	Soil and Water Conservation Structures	3=2+1
6	SWCE-366	Watershed Planning and Management	3=2+1
		Total	18=11+7

5. Department of Irrigation and Drainage Engineering

Sr. No.	Course No.	Course Title	Credits
1	IDE-231	Fluid Mechanics	3=2+1
2	IDE-242	Irrigation Engineering	3=2+1
3	IDE-353	Groundwater, Wells and Pumps	3=2+1
4	IDE-354	Drainage Engineering	3=2+1
5	IDE-365	Advanced Irrigation System Design	2=1+1
6	IDE-366	Minor Irrigation and Command Area Development	3=2+1
		Total	17=11+6

6. Department of Agricultural Process Engineering

Sr. No.	Course No.	Course Title	Credits
1	APE-121	Thermodynamics	3(2+1)
2	APE-232	Engineering Properties of Biological Materials and Food Quality	2(1+1)
3	APE-243	Heat and Mass Transfer	2(1+1)
4	APE-244	Crop Process Engineering	3(2+1)
5	APE-355	Dairy and Food Engineering	3(2+1)

6	APE-356	Drying of Farm Crop	2(1+1)
7	APE-357	Storage Engineering	2(1+1)
8	APE-368	Refrigeration and Air Conditioning	2(1+1)
		Total	19=11+8

7. Department of Farm Structure

Sr. No.	Course No.	Course Title	Credits
1	FS-121	Engineering Mechanics	3=2+1
2	FS-242	Building Materials	2=1+1
3	FS-353	Strength of Material	3=2+1
4	FS-354	Agricultural Structures and Environmental Control	3=2+1
5	FS-365	Design of Structures	3=2+1
		Total	14=9+5

8. Department of Electrical and Other Energy Sources

Sr. No.	Course No.	Course Title	Credits
1	EOES-111	Engineering Chemistry	2=1+1
2	EOES-122	Applied Electronics and Instrumentation	3=2+1
3	EOES-233	Electrical Circuits	3=2+1
4	EOES-244	Electrical Machines and Power Utilization	3=2+1
5	EOES-365	Renewable Energy Sources	3=2+1
		Total	14=9+5
		GRAND TOTAL	136 =77+59

SECTION "F": Syllabus of following courses of B.Sc. (Agri.) for 2.50% weightage

Sr. No.	Course No.	Title	Credits
1	AGRO-111	Principles of Agronomy	1+1=2
2	AGRO-112	Agricultural Meteorology	1+1=2
3	AGRO-113	Introductory Agriculture (Ancient heritage, agricultural scenario and gender equity in Agriculture)	1+0=1
4	AGRO-124	Water Management including Micro irrigation	2+1=3
5	AGRO-235	Field Crops-(I) (Kharif Crops)	2+1=3
6	AGRO-236	Practical Crop Production (I) (Kharif Crops)	0+1=1
7	AGRO-247	Field Crops -(II) (Rabi Crops)	2+1=3
8	AGRO-248	Practical Crop Production (II)(Rabi Crop)	0+1=1
9	AGRO-359	Weed Management	1+1=2
10	AGRO-3611	Organic and Rained farming	1+1=2
Total			12+10 = 22

1	BOT-111	Environmental Science	1+1=2
2	BOT-122	Principles of Genetics	2+1=3
3	BOT-233	Principles of Plant Breeding	2+1=3
4	BOT-234	Crop Physiology	2+1=3
5	BOT-245	Breeding of field and Horticultural crops	2+1=3
6	BOT-356	Principles of Plant Biotechnology	2+1=3
7	BOT-367	Principles of Seed Technology	2+1=3
Total			13+7=20

1	SSAC-111	Introduction to Soil Science	2+1=3
2	SSAC-122	Soil Chemistry, Soil Fertility and Nutrient Management	2+1=3
3	SSAC-243	Manures, Fertilizers and Agrochemicals	2+1=3
4	SSAC-354	Biochemistry	2+1=3
Total			8+4=12

1	PATH-111	Introductory Plant Pathology	1+1=2
2	PATH-121	Agricultural Microbiology	2+1=3
3	PATH-232	Principles of Plant Pathology	1+1=2
4	PATH-243	Diseases of Field Crops and their Management	2+1=3
5	PATH-354	Diseases of Horticultural Crops and their Management	2+1=3
Total			8+5=13

1	HORT-111	Production Technology of Fruit Crops	2+1=3
2	HORT-132	Production Technology of Vegetables and Flowers	1+1=2
3	HORT-243	Production Technology of Spices, Aromatics, Medicinal and Plantation Crops	1+1=2
4	HORT-364	Post Harvest Management and Value addition of Fruits and Vegetable	1+1=2
Total			5+4=9

1	EXTN-111	Fundamentals of Rural Sociology and educational Psychology	2+0=2
2	EXTN-122	Dimensions of Agricultural Extension	1+1=2
3	EXTN-353	Extension Methodologies for Transfer of Agricultural Technology	1+1=2
4	EXTN-364	Entrepreneurship Development and Communication Skills	1+1=2
Total			5+3=8

1	ECON-121	Principles of Agricultural Economics	2+0=2
2	ECON-232	Production Economics and Farm Management	1+1=2
3	ECON-243	Agricultural Finance and Co-operation	1+1=2
4	ECON-354	Agricultural Marketing, Trade and Prices	1+1=2
5	ECON-365	Agri-business Management	1+1=2
6	ECON-121	Statistics	1+1=2
Total			7+5=12

1	ASDS-111	Livestock Production and Management	1+1=2
2	ASDS-242	Livestock Breeding and Nutrition	1+1=2
3	ASDS-353	Technology of milk and Milk products	1+1=2
4	ASDS-364	Sheep and goat production	1+1=2
Total			4+4=8

1	ENT-231	Insect Morphology and Systematic	2+1=3
2	ENT-242	Insect Ecology, Integrated Pest Management and Beneficial Insects	2+1=3
3	ENT-353	Crop Pests and Stored Grain Pests and their Management	2+1=3
4	ENT-364	Introductory Nematology	1+1=2
Total			7+4=11

1	ENGG-121	Fundamentals of Soil and Water Conservation Engineering	1+1=2
2	ENGG-232	Introduction to Computer and Applications	1+1=2
3	ENGG-353	Farm Power and Machinery	1+1=2
4	ENGG-364	Protected Cultivation and Post harvest Technology	1+1=2
Total			4+4=8
GRAND TOTAL			73+50=123

SECTION "G": Syllabus of following courses of B.Sc. (Agri. Bio-Tech.) for 2.50% weightage

1. Department of Biochemistry and Molecular Biology

Sr. No.	Title	Credits
Bio-111	Basic Biochemistry	2+1=3
Bio-122	Enzymology	2+1=3
Bio-123	Microbial Genetics	2+1=3
Bio-234	Molecular Biology	2+1=3
Bio-235	Plant Metabolic Pathways	2+1=3
Bio-236	Elements of Immunology	1+1=2
Bio-247	Techniques in Biochemistry and Molecular Biology	2+2=4
Bio-358	Recombinant DNA Technology	2+1=3
Bio-369	Molecular Plant Virology	2+1=3
BIO 4710	Advances in Recombinant Technology	1+3=4

BIO 4711	Secondary Metabolites of Commercial Importance	1+3=4
BIO 4712	Immunological techniques and its Application	1+3=4
BIO 4713	Proteins and Proteomics	1+3=4
BIO 4714	Enzyme Technology	1+3=4
Total		22+25=47

2. Department of Plant Biotechnology

Sr. No.	Title	Credits
PB-111	Fundamentals of Genetics	2+1=3
PB-122	Cell Biology	2+1=3
PB-123	Introduction to Plant Biotechnology	2+1=3
PB-234	Plant Breeding Techniques	2+1=3
PB-235	Molecular Markers in Plant Breeding	1+1=2
PB-246	Plants Cell and Tissue Culture	2+1=3
PB-357	Biotechnology of Biotic and Abiotic Stress Resistance	2+1=3
PB-358	Biodiversity Conservation	2+1=3
PB-369	Introduction to Bioinformatics	1+2=3
PB-3610	Biosafety Issues	2+0=2
PB 4712	Techniques in Genetic Transformation	1+3=4
PB 4713	PCR Techniques and its Application	1+3=4
PB 4714	Legal issues in GMO' s and LMO's	1+3=4
PB 4715	Plant Genomics	1+3=4
Total		22+22=44

3. Department of Crop Science

Sr. No.	Title	Credits
CS 111	Principles of Plant Physiology	2+1=3
CS 112	Field Crop Production	2+1=3
CS 113	Introductory Entomology	1+1=2
CS 124	Fundamentals of Plant Pathology	1+1=2
CS 125	Agricultural Microbiology	1+1=2
CS 126	Horticultural Crop Production	2+1=3
CS 237	Greenhouse Technology and Protected cultivation	1+1=2
CS 248	BioStatistics	1+1=2
CS 249	Intellectual Property Rights	1+0=1
CS 3510	Computer Application in Biotechnology	1+2=3
CS 3611	Management of Major Insect Pests and Diseases of Field and Horticultural Crops	1+1=2
CS 3612	Marketing and Export of Biotechnological Products	1+1=2
Total		15+12=27

4. Department of Post Harvest and Food Biotechnology

Sr. No.	Title	Credits
FB-121	Human Nutrition	1+1=2
FB-232	Industrial Microbiology and Fermentation Technology	2+2=4
FB-243	Enzyme Biotechnology in Food Processing	2+1=3
FB-244	Post-harvest Biotechnology of Food Grains	2+1=3
FB-355	Technological Applications in Food Processing	1+1=2
FB-356	Post-harvest Biotechnology of Horticultural Crops	2+1=3
FB-367	Food and Nutrition Security of GM Food crops	1+1=2
FB 478	Cereal Biotechnology	2+2=4
FB 479	Fruit and Vegetable Biotechnology	2+2=4
FB 4710	Brewing Technology	1+3=4
FB 4711	Wine Technology	1+3=4
FB 4712	Patenting Inventions in Food Biotechnology	2+2=4
Total		19+20=39

5. Department of Animal Biotechnology

Sr. No.	Title	Credits
AB-231	Basics in Animal Biotechnology	2+1=3
AB-242	Animal Cell Culture	2+1=3
AB-243	Biotechnology of Ruminant Feed Utilization	2+1=3
AB-354	Dairy Process Biotechnology	2+1=3
AB-355	Livestock Genome	2+1=3
AB-366	Animal Genetic Engineering	2+1=3
AB 477	Techniques in Animal Cell Culture	1+3=4
AB 478	Transgenic for improvements in animals	1+3=4
AB 479	Artificial Insemination techniques	1+3=4
AB 4710	Advances in Dairy Microbiology	1+3=4
AB 4711	Probiotics in milk and milk products	1+3=4
Total		17+21=38
Total Credit		95+100=195

SECTION "H": Syllabus of following courses of B.Sc. (Forestry) for 2.50% weightage

1. Silviculture and Agroforestry (SAF)

Sr.No	Course No	Course title	Credits
1	SAF-121	Principles and Practices of Silviculture	3+1=4
2	SAF-232	Forest Mensuration	2+1=3
3	SAF-233	Nursery Management	1+1=2
4	SAF-244	Silviculture of Indian Trees	2+1=3
5	SAF-245	World Forestry System	2+0=2
6	SAF-356	Silviculture System	2+0=2
7	SAF-357	Plantation Forestry and Waste Land Development	1+1=2
8	SAF-358	Environmental Science	2+1=3
9	SAF-369	Agroforestry System and Management	2+1=3
	Total		17+7 = 24

2. Forest Biology and Tree Improvement (FBT)

Sr. No.	Course No	Course title	Credits
1	FBT-121	Dendrology	2+1=3
2	FBT-122	Forest Ecology, Biodiversity and Conservation	1+1=2
3	FBT-123	Tree physiology	1+1=2
4	FBT-234	Principles of Tree Improvement	2+1=3
5	FBT-235	Tree Seed Technology	1+1=2
6	FBT-246	Fundamentals of Wildlife	2+0=2
7	FBT-247	Forest Pathology	2+1=3
8	FBT-358	Wildlife Management	1+1=2
9	FBT-369	Forest Entomology and Nematology	2+1=3
	Total		14+8=22

3. Forest Products and Utilization (FPU)

Sr. No	Course No	Course title	Credits
1	FPU-121	Ethnobotany	1+1=2
2	FPU-232	Wood Anatomy	1+1=2
3	FPU-233	Logging and Ergonomics	1+1=2
4	FPU-244	Wood Science and Technology	2+1=3
5	FPU-245	Wood Product and Utilization	1+1=2
6	FPU-356	Medicinal and Aromatic Plant	2+1=3
7	FPU-367	Utilization of Non Timber Forest Product	2+1=3
		Total Credit	10+7=17

4. Natural Resource Management (NRM)

Sr. No	Course No.	Course title	Credits
1	NRM-121	Chemistry and Fertility of Forest Soil	2+1=3
2	NRM-232	Forest Engineering and Survey	1+1=2
3	NRM-233	Soil Survey and Remote Sensing	2+1=3
4	NRM-244	Forest Tribology and Anthropology	2+0=2
5	NRM-355	Rangeland Management	2+1=3
6	NRM-356	Principles of Forest Economics, Project Planning and Evaluation	1+1=2
7	NRM-367	Forest Management, Policy and Legislation	2+1=3
8	NRM-368	Forest Business Management	1+1=2
9	NRM-369	Marketing and Trade of Forest Produce	2+1=3
		Total Credit	15+8 =23

5. Agriculture Sciences and Humanities

Sr. No	Course No	Course title	Credit
1	F/ECON-111	Introductory Forest Economics	2+0=2
2	F/SSAC-111	Fundamental of Geology and Soil Science	1+1=2
3	F/AGROMET-111	Agricultural Meteorology	1+1=2
4	F/BOT-111	Principles of Cytology and Genetics	1+1=2
5	F/BOT-112	Principles of Plant Physiology	1+1=2
6	F/BOT-113	Introductory Botany	2+1=3
7	F/HORT-111	Fundamentals of Horticulture	2+1=3
8	F/ENGG-121	Principles of Hydrology, Soil and Water Conservation	2+1=3
9	F/SSAC-232	Fundamental of Biochemistry	1+1=2
10	F/ASDS-241	Live Stock Management	1+1=2
11	F/STAT-351	Elementary Statistics	1+1=2
12	F/COMP-351	Introduction to Computer Application and Programming	1+1=2
13	F/EXTN-241	Extension Education	1+1=2
14	F/BIOT-361	Fundamental of Biotechnology	1+1=2
15	F/EXTN-362	Entrepreneurship Development and Communication Skills	2+1=3
		Total	20+14=34
		GRAND TOTAL	76+44=120

SECTION "P": Syllabus of following courses of B.Sc. (Hort.) for 2.50% weightage

1. Department of Horticulture

Sr. No	Course No	Course title	Credit
1	H/HORT-111	Fundamentals of Horticulture	3=2+1
2	H/FL-111	Ornamental Horticulture	2=1+1
3	H/HORT-122	Propagation and Nursery Management	3=2+1
4	H/HORT-123	Growth and Horticultural Crops	2=1+1
5	H/FS-231	Tropical and sub-tropical fruits	3=2+1
6	H/VS-231	Tropical and sub-tropical vegetables and Tuber crops	3=2+1
7	H/PHT-231	Post harvest management of horticultural crops	3=2+1
8	H/SPICON-231	Spices and Condiments	2=1+1
9	H/FL-232	Landscape gardening	2=1+1
10	H/FS-242	Breeding of fruit and Plantation crops	3=2+1
11	H/FS-243	Arid fruit crops	2=1+1
12	H/VS-242	Temperate Vegetables	2=1+1
13	H/FL-243	Commercial Floriculture	3=2+1
14	H/AROMED-241	Aromatic and Medicinal Plants	2=1+1
15	H/VS-353	Breeding of Vegetable Crops	3=2+1
16	H/FS-354	Temperate Fruit and Plantation Crops	3=2+1
17	H/HORT-354	Introductory Agroforestry and Horti silvipasture	2=1+1

18	H/FL-354	Protected Cultivation of Flower crops	2=1+1
19	H/FL-365	Breeding and Seed Production of Ornamental Crops	2=1+1
20	H/VS-354	Seed Production in Vegetable Crops	3=2+1
21	H/VS-365	Protected Cultivation of Vegetable crops	2=1+1
22	H/PHT-362	Processing and Value Addition In Horticultural Crops	3=1+2
		Total	55=32+23

2. Department of Soil Science and Agricultural Chemistry

Sr. No	Course No	Course title	Credits
1	H/SSAC-111	Fundamentals of Soil science	2=1+1
2	H/SSAC-122	Soil Fertility and Nutrient Management	3=2+1
3	H/SSAC-233	Fundamentals of Biochemistry	2=1+1
4	H/SSAC-244	Soil, Irrigation water and Plant analysis	1=0+1
		Total Credit	8=4+4

3. Department of Agricultural Botany

Sr. No	Course No	Course title	Credits
1	H/BOT-111	Principles of Genetics and Cytogenetics	3=2+1
2	H/BOT-122	Principles of Plant Breeding	2=1+1
3	H/BOT-123	Introductory Plant Physiology	2=1+1
4	H/BOT-354	Environmental science and Agro-ecology	2=1+1
5	H/BOT-361	Fundamentals of Biotechnology	2=1+1
		Total Credit	11=6+5

4. Department of Agricultural Extension

Sr. No	Course No	Course title	Credits
1	H/EXTN-111	Fundamentals of Extension Education	2=1+1
2	H/EXTN-122	Agricultural Communication and Journalism	1=0+1
3	H/EXTN-363	Entrepreneurship Development and Communication skill	2=1+1
		Total Credit	5=2+3

5. Department of Agricultural Economics

Sr. No	Course No	Course title	Credits
1	H/ECON-111	Introductory Economics	2=2+0
2	H/STAT-121	Elementary Statistics	2=1+1
3	H/ECON-242	Horti-Business Management	2=2+0
		Total	6=5+1

6. Department of Agronomy

Sr. No	Course No	Course title	Credits
1	H/AGROMET-111	Agricultural Meteorology	2=1+1
2	H/AGRO-121	Water Management in Horticultural crops	2=1+1
3	H/AGRO-232	Weed Management in Horticultural crops	2=1+1
4	H/AGRO-243	Organic Farming	2=1+1
		Total	8=4+4

7. Department of Agricultural Plant Protection and Microbiology

Sr. No	Course No	Course title	Credits
1	H/MIBO-111	Introductory Microbiology	2=1+1
2	H/ MIBO -362	Applied Microbiology	1=0+1
3	H/PATH-121	Fundamentals of Plant Pathology	2=1+1
4	H/PATH-232	Disease of vegetables, ornamentals and spice crops	3=2+1
5	H/PATH-243	Disease of fruit, plantation, medicinal and aromatic crops	3=2+1
6	H/PATH-354	Mushroom culture	1=0+1
		Total	12=6+6

8. Department of Agricultural Entomology

Sr. No	Course No	Course title	Credits
1	H/ENTO-121	Fundamentals of Entomology	2=1+1
2	H/ ENTO -352	Insect pest management of vegetables, ornamentals and spice crops	3=2+1
3	H/ ENTO -353	Insect pest management of fruit, plantation, medicinal and aromatic crops	3=2+1
4	H/ ENTO -364	Nematode pest of Horticultural crops and their management	2=1+1
5	H/ ENTO -365	Apiculture	1=0+1
		Total	11=6+5

9. Department of Agricultural Engineering and allied

Sr. No	Course No	Course title	Credits
1	H/COMP-111	Computer Applications	2=1+1
2	H/ENGG-351	Farm power and Machinery	2=1+1
		Total	4=2+2
		GRAND TOTAL	120 = 67 + 53

Annexure: “J”

Syllabus for CET in Fisheries Science Stream for 100 % weightage

AQUACULTURE

PRINCIPLES OF AQUACULTURE
FRESHWATER AQUACULTURE
FISH NUTRITION AND FEED TECHNOLOGY
CULTURE OF FISH FOOD ORGANISMS
ORNAMENTAL FISH PRODUCTION AND MANAGEMENT
COASTAL AQUACULTURE AND MARICULTURE
FINFISH BREEDING AND HATCHERY MANAGEMENT
SHELLFISH BREEDING AND HATCHERY MANAGEMENT
DISEASES AND MANAGEMENT
BIOTECHNOLOGY AND BIOINFORMATICS
GENETICS AND BREEDING

FISHERIES BIOLOGY

TAXONOMY OF FINFISH
ANATOMY AND BIOLOGY OF FINFISH
TAXONOMY OF SHELLFISH
ANATOMY AND BIOLOGY OF SHELLFISH
INLAND FISHERIES
PHYSIOLOGY OF FINFISHES AND SHELLFISHES
MARINE FISHERIES
FISH STOCK ASSESSMENT AND MANAGEMENT

Fisheries Hydrography

METEOROLOGY AND GEOGRAPHY
TECHNIQUES OF SOIL ANALYSIS
LIMNOLOGY
PHYSICAL OCEANOGRAPHY
CHEMICAL OCEANOGRAPHY
MARINE BIOLOGY
AQUATIC BIODIVERSITY
AQUATIC POLLUTION
COASTAL ZONE MANAGEMENT

Fisheries Technology

PRINCIPLES OF BIOCHEMISTRY
FUNDAMENTALS OF MICROBIOLOGY
FOOD CHEMISTRY AND FISH IN NUTRITION
BIOCHEMICAL TECHNIQUES AND INSTRUMENTATION
FREEZING TECHNOLOGY
THERMAL PROCESSING AND PACKAGING TECHNOLOGY
FISH PRODUCT AND BY PRODUCT TECHNOLOGY
FISHERY MICROBIOLOGY AND QUALITY ASSURANCE

FISHERIES ENGINEERING

FISHING CRAFT TECHNOLOGY
FISHING GEAR TECHNOLOGY
NAVIGATION AND SEAMANSHIP
FISHING TECHNOLOGY
AQUACULTURE ENGINEERING
REFREGERATION AND EQUIPMENT ENGINEERING

Fisheries Resources, Economics, Statistics and Extension Education

INFORMATION AND COMMUNICATION TECHNOLOGY
ELEMENTS OF STATISTICS
BUSINESS ORGANIZATION AND PERSONNEL MANAGEMENT
FISHERIES ECONOMICS
RURAL SOCIOLOGY AND EXTENSION EDUCATION
DISASTER MANAGEMENT
STATISTICAL METHODS
EXTENSION PROGRAMME PLANNING
FISHERIES ADMINISTRATION AND LEGISLATION
MARKETING MANAGEMENT
ENTERPRENEURSHIP DEVELOPMENT AND FINANCE
COMMUNICATION SKILLS

Annexure : “K”

Faculty-wise weightage for Post Harvest Management (PHM) CET

Sr. No.	Faculty	Weightage (%)	No. of questions
1	B.B.M. (Agri.)	11%	22
2	B.Sc. (Forestry)	11%	22
3	Agri. Biotechnology	11%	22
4	Agriculture	11%	22
5	Fisheries	11%	22
6	B.Tech. (Agril. Engineering)	11%	22
7	B.Sc. (Hort.)	11%	22
8	Food Tech	11%	22
9	B.Sc. (Hons.) Home Science Food and Nutrition	11%	22
10	General questions on PHT	1%	2
	Total	100%	200

**COMMON SYLLABUS FOR POST HARVEST MANAGEMENT (PHM)CET
COURSE LIST**

Sr. No.	Faculty	Course No.	Course Title	Credit	Total credit
1	B.B.M. (Agri.)	HORT- 243	Post Harvest Technology of Horticultural Crops	2+1=3	3
		ENGG-232	Post Harvest Technology for cereals, pulses, Oilseeds and Cash Crops	1+1=2	2
		ASDS-242	Value Addition in Animal Products.	1+1=2	2
		ABM-358	Agro-Processing Management	1+1=2	2
		HORT-232	Production Management of Important Vegetables and Floriculture Crops	1+1=2	2
		ASDS-231	Animal Production Management	1+1=2	2
		HORT-111	Production Management of Important Fruit Crops	1+1=2	2
Total credit					15
2	B.Sc. (Forestry)	FPU-356	Medicinal and Aromatic Plant	2+1=3	3
		FPU-245	Wood Products and Utilization	1+1=2	2
		NRM-357	Principles of Forest Economics, Project Planning and Evaluation	1+1=2	2
		FPU-367	Utilization of Non-Timber Forest Products	2+1=3	3
		NRM-369	Forest Business Management	1+1=2	2
		NRM-3610	Marketing and Trade of Forest Produces	2+1=3	3
Total credit					15
3	B.Sc. (Agril. Biotechnology)	FB- 244	Post Harvest Biotechnology of Food grains	2+1= 3	3
		FB- 366	Post Harvest Biotechnology of Horticultural crops	2+1= 3	3
		FB- 343	Enzyme Biotechnology in Food Processing	2+1= 3	3
		FB- 232	Industrial Microbiology and Fermentation Technology	2+2= 4	4
		FB- 355	Technological Applications in Food Processing	1+1= 2	2
Total credit					15
4	B.Sc. (Agri.)	HORT- 232	Production Technology of Vegetables and Flowers	1+1= 2	2
		HORT- 243	Production Technology of Spices, Aromatic, Medicinal and Plantation crops	1+1= 2	2
		HORT- 111	Production Technology of Fruits Crops	2+1= 3	3
		HORT- 364	Post Harvest Management and Value Addition of Fruits and Vegetables	1+1= 2	2
		ECON- 365	Agri. Business Management	1+1= 2	2
		ENGG- 364	Protected Cultivation and Post Harvest Technology	1+1= 2	2
Total credit					13
5	B. F.Sc. (Fisheries science)	F-BIOL-328	Fish Stock Assessment and Management	2+1= 3	3
		F-TECH-123	Food Chemistry and Fish in Nutrition	2+1= 3	3
		F-TECH-215	Freezing Technology	2+1= 3	3
		F-TECH-226	Thermal Processing and Packaging Technology	2+1= 3	3
		F-TECH-317	Fish Product and By Product Technology	2+2=4	4
Total credit					16

6	B.Tech. (Agri. Engineering)	APE- 244	Crop Process Engineering	2+1= 3	3
		APE- 368	Refrigeration and Air Conditioning	1+1= 2	2
		AG- 245	Agri. Business Management	2+0= 2	2
		APE- 356	Drying of farm crops	1+1= 2	2
		APE- 357	Storage Engineering	1+1= 2	2
Total credit				11	
7	B.Sc. (Hort.)	H/PS-231	Tropical and Sub-tropical fruits	2+1=3	3
		H/VS-231	Tropical and Sub-tropical Vegetables	2+1=3	3
		H/PHT-231	Post harvest management of horticultural crops	2+1=3	3
		H/SPICON-231	Spices and condiments	1+1=2	2
		H/FL-243	Commercial Floriculture	2+1=3	3
		H/ECON-242	Horti-Business Management	2+0=2	2
Total credit				16	
8	B. Tech (Food technology)	FST-111	Principle and food processing	2+1=3	3
		FST-123	Post Harvest management of fruits and vegetables	2+1=3	3
		FST-124	Cereal processing	2+1=3	3
		FST-236	Meat Poultry and fish Technology	2+1=3	3
		FIM-122	Food Microbiology	2+1=3	3
Total credit				15	
9	B.Sc. (Home Science.)	AG-Econ-231	Marketing Management	2+1=3	3
		FSN-244	Food Preservation and Storage	1+2=3	3
		FSN-ND-351	Food science	2+1=3	3
		FSN-ND-352	Food Analysis	1+2=3	3
		FSN-ND-353	Food Standards and Quality Control	2+1=3	3
Total credit				15	
Overall credit				131	