

B.Sc. Botany

SEM	COURSE CODE	PART	COURSE	COURSE TITLE	Hrs /Week	CREDIT	MARKS		TOTAL
							CIA	ESE	
I	20U1LT1/LA1/LF1/LH1/LU1	I	Language – I		6	3	25	75	100
	20UCN1LE1	II	English – I		6	3	25	75	100
	20UBO1CC1	III	Core – I	Plant Diversity (Algae, Fungi and Archegoniate)	5	5	25	75	100
	20UBO1CC2P		Core – II	Laboratory Course for Core – I	3	2	25	75	100
	20UCH1AC1		Allied – I	Inorganic, Organic and Physical Chemistry – I	5	4	25	75	100
	20UCH1AC2P	IV	Allied – II	Volumetric Estimations – Practical I	3	2	25	75	100
	20UCN1AE1		AEC-I	Value Education	2	2	-	100	100
TOTAL					30	21			700
II	20U2LT2/LA2/LF2/LH2/LU2	I	Language – II		6	3	25	75	100
	20UCN2LE2	II	English – II		6	3	25	75	100
	20UBO2CC3	III	Core – III	Plant Anatomy and Embryology	6	5	25	75	100
	20UBO2CC4P		Core – IV	Laboratory Course for Core – III	3	2	25	75	100
	20UCH2AC3		Allied – III	Inorganic, Organic and Physical Chemistry – II	4	3	25	75	100
	20UCH2AC4P	IV	Allied – IV	Organic Analysis – Practical II	3	2	25	75	100
	20UCN2SE1		Skill Enhancement Course – I@	Soft Skills Development	2	2	-	100	100
TOTAL					30	20			700
III	20U3LT3/LA3/LF3/LH3/LU3	I	Language– III		6	3	25	75	100
	20UCN3LE3	II	English – III		6	3	25	75	100
	20UBO3CC5	III	Core – V	Cytology and Genetics	4	4	25	75	100
	20UBO3CC6P		Core – VI	Laboratory Course for Core – V	3	2	25	75	100
	20UZO3AC5		Allied – V	Animal Diversity and Physiology	4	3	25	75	100
	20UZO3AC6P	IV	Allied – VI	Animal Diversity and Physiology – Practical	3	2	25	75	100
	20UBO3GE1		Generic Elective – I#		2	2	-	100	100
20UCN3AE2	AEC-II	Environmental Studies	2	2	-	100	100		
TOTAL					30	21			800
IV	20U4LT4/LA4/LF4/LH4/LU4	I	Language – IV		6	3	25	75	100
	20UCN4LE4	II	English – IV		6	3	25	75	100
	20UBO4CC7	III	Core – VII	Microbiology and Plant Pathology	5	5	25	75	100
	20UBO4CC8P		Core – VIII	Laboratory Course for Core – VII	3	2	25	75	100
	20UZO4AC7		Allied – VII	Commercial Zoology	5	3	25	75	100
	20UZO4AC8P	IV	Allied – VIII	Commercial Zoology – Practical	3	2	25	75	100
	20UBO4GE2		Generic Elective – II#		2	2	-	100	100
20UCN4EA	V	Extension Activities	NCC, NSS, etc.	-	1	-	-	-	
TOTAL					30	21			700
V	20UBO5CC9	III	Core – IX	Plant Systematics and Economic Botany	6	5	25	75	100
	20UBO5CC10		Core – X	Plant Physiology	5	5	25	75	100
	20UBO5CC11		Core – XI	Biochemistry and Biophysics	5	5	25	75	100
	20UBO5CC12P	IV	Core – XII	Laboratory Course for Core – IX, X and XI	5	5	25	75	100
	20UBO5DE1 A/B		DSE – I**		5	4	25	75	100
	20UBO5SE2 A/B		Skill Enhancement Course – II@		2	2	-	100	100
	20UBO5SE3 A/B		Skill Enhancement Course – II@		2	2	-	100	100
20UBO5EC1		Extra Credit Course – I	General Intelligence for Competitive Examinations	-	4*	--	100*	100*	
TOTAL					30	28			700
VI	20UBO6CC13	III	Core – XIII	Plant Ecology and Phytogeography	5	5	25	75	100
	20UBO6CC14		Core – XIV	Plant Molecular Biology and Biotechnology	5	5	25	75	100
	20UBO6CC15		Core – XV	Biological Techniques	5	5	25	75	100
	20UBO6CC16P	IV	Core – XVI	Laboratory Course for Core XIII, XIV and XV	5	5	25	75	100
	20UBO6DE2 A/B		DSE – II**		5	4	25	75	100
	20UBO6DE3 A/B		DSE – III**		4	4	25	75	100
	20UCN6AE3		AEC-III	Gender Studies	1	1	-	100	100
20UBO6EC2		Extra Credit Course – II	Botany for Competitive Examinations	-	4*	--	100*	100*	
20UBOAECA		Extra Credit Course for all	Online Course	-	1*	--	-	-	
TOTAL					30	29			700
GRAND TOTAL					180	140	-	-	4300

* Not Considered for Grand Total and CGPA.

Generic Electives

SEM	Course Code	Part	Course	Course Title
III	20UBO3GE1	IV	Non-Major Elective – I	Edible Mushroom Cultivation and Commercialization
IV	20UBO4GE2	IV	Non-Major Elective – II	Nursery, Gardening for Entrepreneurship

@ Skill Enhancement Course

SEM	Course Code	Part	Course	Course Title
V	20UBO5SE2 A/B	IV	Skill Enhancement Course – II	A. Algal Cultivation Techniques for Entrepreneurship B. Food Microbiology
V	20UBO5SE3 A/B	IV	Skill Enhancement Course – III	A. Greenhouse Technology B. Remote sensing

****Discipline Specific Elective**

SEM	Course Code	Course Title
V	20UBO5DE1A	Biostatistics and Bioinformatics
	20UBO5DE1B	Enzyme Technology
VI	20UBO6DE2A	Industrial Botany
	20UBO6DE2B	Seed Technology
VI	20UBO6DE3A	Horticulture and Plant Breeding
	20UBO6DE3B	Silviculture

Allied Courses

SEM	Course Code	Part	Course	Course Title
III	20UBO3AC5	III	Allied – V	Applied Botany – I
	20UBO3AC6P		Allied – VI	Laboratory Course for Applied Botany I
IV	20UBO4AC7		Allied – VII	Applied Botany – II
	20UBO4AC8P		Allied – VIII	Laboratory Course for Applied Botany II

Value added Certificate Courses

SEM	Course Code	Course	Course Title
III	20UBOVAC1	Value Added Course – I	Bioinoculants for Commercialization
V	20UBOVAC2	Value Added Course – II	Forensic Botany

Semester	Code	Course	Title of the Course	Hours	Credits	Max. marks	Internal marks	External marks
I	20UBO1CC1	Core – I	PLANT DIVERSITY (ALGAE, FUNGI AND ARCHEGONIATE)	5	5	100	25	75

Course Outcomes:

1. Describe the salient features of Algae, Fungi and Archegoniate.
2. Match the classification, structure, reproduction and life cycle of Algae, Fungi and Archegoniate.
3. Explain the evolutionary relationship between Algae, Fungi and Archegoniate.
4. Point out the economic importance of Algae, Fungi and Archegoniate based on their morphology.
5. Identify and preserve them in their natural environment.

Unit I: Algae

15 hours

General characteristics and outline classification of algae (F. E. Fritsch, 1985). Habit and habitats of freshwater, marine and soil algae. Thallus organization and food reserve in algae. A detailed study of structure, reproduction and life cycle of the following genera – *Oscillatoria*, *Volvox*, *Oedogonium*, *Caulerpa*, *Dictyota* and *Polysiphonia*. Economic importance of algae with reference to industry, agriculture and medicine.

Unit II: Fungi

15 hours

General characteristics and outline classification of fungi (Alexopoulos and Mims, 1979). Detailed study of occurrence, morphology, reproduction and life cycle of the following genera – *Albugo*, *Aspergillus*, *Puccinia* and *Polyporus*. Economic importance of fungi with reference to medicine, agriculture and industry. Lichens – General characters, types and economic importance.

Unit III: Bryophytes

15 hours

General characteristics and classification of bryophytes (Rothmaler, 1951). A detailed study of the structure, anatomy, reproduction and life cycle of the following genera – *Marchantia*, *Porella*, *Anthoceros* and *Polytrichum*. Economic importance of bryophytes.

Unit IV: Pteridophytes

15 hours

General characteristics and classification of pteridophytes (Sporne, 1975). Morphology, anatomy, reproduction and life cycle of the following genera – *Lycopodium*, *Equisetum* and *Adiantum* (Excluding developmental stages). Stellar evolution and economic importance of pteridophytes. Paleobotany: Fossil types, methods of fossilization, Geological time scale, brief study of *Rhynia*, *Lepidodendron* and *Calamities*.

Unit V: Gymnosperms

15 Hrs

General characters and classification of gymnosperms (Sporne, 1967). Morphology, anatomy, reproduction and life cycle of the following genera – *Cycas* and *Pinus*. Economic importance of gymnosperms with reference to wood, essential oils, resins and drugs. A brief study of the fossil gymnosperm – *Williamsonia*.

#.....# **Self-Study portion**

Text Books:

1. Hait G, Bhattacharya K and Ghosh AK, A Text Book of Botany, 5th Edition, New Central Book Agency Pvt Ltd, Kolkata, India, 2011.
2. Sharma OP, A Text Book of Algae, 1st Edition, Tata McGraw Hill Education Pvt Ltd, New Delhi, India, 2011.
3. Vasishta PC, Sinha AK and Kumar A, Botany for Degree Students (Volumes), 2nd Edition, Chand & Company Pvt Ltd, New Delhi, India, 2010.

Books for Reference:

1. Alexopoulos CJ, Mims CW and Blackwell M, Introductory Mycology, 4th Edition, Wiley Publishers, New Delhi, India, 2007.
2. Pandey BP, Botany for Degree Students, 2nd Edition, Chand & Company Pvt Ltd, New Delhi, India, 2010.

Web Reference:

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Paper					Hours	Credits			
I	20UBO1CC1	PLANT DIVERSITY (ALGAE, FUNGI AND ARCHEGONIATE)					5	5			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓	✓	✓	✓		✓	✓				
CO2	✓		✓	✓		✓		✓			
CO3	✓	✓	✓	✓		✓	✓	✓	✓		
CO4	✓	✓	✓	✓		✓	✓		✓	✓	
CO5	✓	✓	✓	✓	✓	✓			✓		
Number of Matches= 34, Relationship : Moderate											

Prepared by:

1. DR. M. KAMARAJ

Checked by:

1.DR. A ASLAM

Semester	Code	Course	Title of the Course	Hours	Credits	Max. marks	Internal marks	External marks
I	20UBO1CC2P	Core – II	LABORATORY COURSE FOR CORE-I	3	2	100	25	75

Course Outcomes:

1. Explain the internal structures of algae and fungi through microscopic observation.
2. Examine the morphology, anatomy and reproductive parts of bryophytes
3. Observe the morphology, anatomy and reproductive parts of pteridophytes and gymnosperms.
4. Categorize fossil plants based on geological time period.
5. Realize the natural plant diversity through field visit.

Plant Diversity (Algae, Fungi and Archegoniate)

1. Micropreparation and observation of vegetative and reproductive parts of the following algal specimens – *Oscillatoria*, *Volvox*, *Oedogonium*, *Caulerpa*, *Dictyota* and *Polysiphonia*.
2. Micropreparation and observation of the following fungal specimens – *Albugo*, *Aspergillus*, *Puccinia* and *Polyporus*.
3. Micropreparation and observation of the following bryophyte specimens – *Marchantia*, *Porella*, *Anthoceros* and *Polytrichum*.
4. Micropreparation and observation of the following pteridophyte specimens – *Lycopodium*, *Equisetum* and *Adiantum*.
5. Micropreparation and observation of the following gymnosperm specimens – *Cycas* and *Pinus*.
6. Observation of following permanent fossil slides – *Rhynia*, *Lepidodendron*, *Calamities* and *Williamsonia*.
7. Botanical tour to witness the specimens in their natural habitats (not exceeding three days).

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Paper					Hours	Credits			
I	20UBO1CC2P	LABORATORY COURSE FOR CORE-I					3	2			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1		✓	✓	✓		✓	✓	✓			
CO2		✓	✓	✓		✓	✓	✓			
CO3		✓	✓	✓		✓	✓	✓			
CO4		✓	✓	✓		✓		✓	✓	✓	
CO5		✓	✓	✓		✓		✓	✓	✓	
Number of Matches= 32, Relationship : Moderate											

Prepared by:

1. DR. M. KAMARAJ

Checked by:

1.DR. A. ASLAM

Semester	Code	Course	Title of the Course	Hours	Credits	Max. marks	Internal marks	External marks
II	20UBO2CC3	Core – III	PLANT ANATOMY AND EMBRYOLOGY	6	5	100	25	75

Course Outcomes:

1. Outline the fundamental concepts of plant anatomy and embryology.
2. Distinguish different type of tissue system and their organization.
3. Recognize the anatomical features of plant organs and secondary growth.
4. Evaluate the structural organization of flower and the process of pollination and fertilization.
5. Categorize the plant relationships based on internal anatomy and reproductive system.

Unit I: Meristematic and permanent tissues

18 hours

Meristematic tissues – Definition, classification and types (Based on origin, position, function and plane of division). Apical organization theories of shoot and root – Apical cell, Histogen, Tunica-carpus and Korper-Kappe theory and concept of [#]Quiescent centre[#]. Origin, types, structure and function of simple and complex tissue.

Unit II: Tissue system

18 hours

Origin, structure and function of epidermal tissue system, special epidermal structures and hydathodes. Secretory tissue – glandular, resin ducts and laticiferous tissue. Ground tissue – extrastelar (cortex), intrastelar (pericycle, pith and medullary rays) and mesophyll. [#]Types of vascular bundles[#].

Unit III: Anatomical features of plant organs

18 hours

Primary structures of leaf, stem and root of monocot and dicot. Normal secondary thickening in dicot stem and root. Development of periderm, phellem, phellogen, lenticels and tyloses. Types of wood – sap, heart, ring porous and diffused wood. [#]Brief account on dendrochronology[#]. Anomalous secondary thickening in *Boerhavia*, *Nyctanthes* and *Dracaena*.

Unit IV: Structural organization and fertilization

18 hours

Anther – structure, development of male gametophyte and microsporogenesis. Ovule – structure, types, development of female gametophyte and megasporogenesis. Pollination – Factors favouring pollination, types, advantages and disadvantages. Fertilization – Double fertilization and [#]triple fusion[#].

Unit V: Endosperm, embryo, apomixis and polyembryony

18 hours

Endosperm and its types. Embryo development in dicot and monocot plants. Brief note on apomixis, parthenocarpy, polyembryony and its types. Seed – structure, development, [#]function and dispersal of seeds[#].

[#].....[#] Self-Study portion

Text Books:

1. Bhojwani SS and Bhatnagar SP. 5th Edition, The embryology of Angiosperms. Vikas Publishing House Pvt Ltd, New Delhi, India, 2009.
2. Pandey BP, Plant Anatomy, 2nd Edition, Chand & Company Pvt Ltd, New Delhi, India, 2012.
3. Pandey SN and Chandha A. Plant anatomy and Embryology. 1st Edition, Vikas Publishing House Pvt Ltd, New Delhi, India, 2009.

Books for Reference:

1. Evert RF, Esau's Plant Anatomy, 3rd Edition, Wiley Publishers India, 2005.
2. LerstenNels R. Flowering Plant Embryology. 1st Edition. Iowa State University Press, Iowa, 2004.

Web Reference:

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code		Title of the Paper			Hours	Credits			
II	20UBO2CC3		PLANT ANATOMY AND EMBRYOLOGY			6	5			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓			✓		✓			✓	
CO2	✓		✓	✓		✓			✓	
CO3	✓	✓	✓	✓		✓	✓	✓	✓	
CO4	✓	✓		✓	✓	✓	✓		✓	✓
CO5	✓			✓	✓	✓			✓	✓
Number of Matches= 31, Relationship : Moderate										

Prepared by:

1. DR. R. RAVIKUMAR

Checked by:

1. DR. A. ASLAM

Semester	Code	Course	Title of the Course	Hours	Credits	Max. marks	Internal marks	External marks
II	20UBO2CC4P	Core – IV	LABORATORY COURSE FOR CORE-III	3	2	100	25	75

Course Outcomes:

1. Identify simple, complex tissues and vascular bundle orientation in plants.
2. Distinguish and compare the anatomical features of dicot and monocot plants.
3. Recognize primary, secondary and anomalous thickening of plants.
4. Compare the young and mature stages of reproductive organs of a plant.
5. Justify the identification of anatomical and embryological specimens.

Plant Anatomy and Embryology

1. Anatomical observation of monocot and dicot leaf, stem and root (monocot – Grass/*Canna* and dicot – *Tridax*)
2. Normal secondary thickening in dicot stem (*Azadiractaindica*).
3. Anomalous secondary thickening (*Boerhavia*, *Nyctanthes* and *Dracaena*).
4. T.S of young and mature anther (*Datura metal*)
5. Dissection of dicot embryo and endosperm (*Cucumis* and *Tridax*).
6. Observation of simple and complex tissues (Charts/permanent slides).
7. Observation of vascular bundle orientation (Charts/permanent slides).
8. L.S. of ovule and types of ovule (Charts/permanent slides).

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Paper					Hours	Credits				
II	20UBO2CC4P	LABORATORY COURSE FOR CORE-III					3	2				
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)						
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5		
CO1	✓	✓	✓	✓		✓		✓				
CO2	✓	✓	✓	✓		✓	✓	✓				
CO3	✓	✓	✓	✓		✓	✓	✓	✓			
CO4	✓	✓		✓		✓		✓	✓			
CO5	✓	✓		✓		✓		✓		✓		
Number of Matches= 33, Relationship : Moderate												

Prepared by:

1. Dr. R. RAVIKUMAR

Checked by:

1. DR. A. ASLAM

Semester	Code	Course	Title of the Course	Hours	Credits	Max. marks	Internal marks	External marks
II	20UBOVAC1	VAC-I	BIOINOCULANTS FOR COMMERCIALIZATION	25	-	100	-	-

Course outcomes:

1. Recognize the concept and significance of bio-fertilizers.
2. Practice the skills for mass production of different bio-fertilizers.
3. Explain the concept and significance of bio-pesticides.
4. Demonstrate the skills on mass production of different bio-pesticides.
5. Get exposure on quality maintenance and marketing strategies of bio-fertilizers.

Unit I: Concept and significance of bioinoculants. Types of bioinoculants. General account on asymbiotic, symbiotic nitrogen fixing bacteria, phosphate solubilizing bacteria and mycorrhizae.

Unit II: Mass cultivation and application of cyanobacteria, *Azospirillum*, *Azotobacter*, *Rhizobium*, *Azolla* and *Mycorrhizal* bioinoculants.

Unit III: Concept and significance of biopesticides. Types and their application. Bioherbicides and bioinsecticides. Integrated pest management.

Unit IV: Mass production and application of herbal, bacterial, fungal and viral biopesticides. Methods of making bio-compost, vermicompost and its application.

Unit V: National and International scenario of bioinoculants. Quality control, storage and marketing, small and large-scale strategies of bioinoculants.

Text Books:

1. Dubey RC, A Text book of Biotechnology, 5th Edition, Chand & Company Pvt Ltd, New Delhi, India, 2014.
2. Kumaresan V, Biotechnology, 6th Edition, Saras Publications Pvt Ltd, Nagercoil, Tamil Nadu, India, 2013.
3. SubbaRao NS, Biofertilizers in Agriculture and Forestry, 3rd Edition. CBS Publishers and Distributors Pvt Ltd, New Delhi, India, 2019.

Book for Reference:

1. Bhattacharya DP and Purohit P, Organic Farming: Biocontrol and Biopesticide Technology, 1st Edition, Agrobios, Jodhpur, Rajasthan, India, 2012.
2. Sadasivam K, Kumar K and Govindarajan K, Biofertilizers Technology, 1st Edition, Scientific Publishers Pvt Ltd, Chennai, India, 2004.

Web Reference:

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Paper					Hours	Credits				
I	20UBOVAC1	BIOINOCULANTS FOR COMMERCIALIZATION					3	2				
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)						
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5		
CO1	✓	✓	✓	✓		✓		✓				
CO2	✓	✓	✓	✓		✓	✓	✓				
CO3	✓	✓	✓	✓		✓	✓	✓	✓			
CO4	✓	✓		✓		✓		✓	✓			
CO5	✓	✓		✓		✓		✓		✓		
Number of Matches= 33, Relationship : Moderate												

Prepared by:

1. DR. K. MOHAMED RAFI

Checked by:

1. DR. A. ASLAM

Semester	Code	Course	Title of the Course	Hours	Credits	Max. marks	Internal marks	External marks
II	20UBOVAC2	VAC-II	FORENSIC BOTANY	25	-	100	-	-

Course outcomes:

1. Relate the concept and applications of forensic botany.
2. Determine the value of plants from forensic point of view.
3. Recognize forensic importance of botanical specimens.
4. Categorize various botanical specimens for forensic evidences.
5. Justify cases based on classic and modern botanical evidences.

Unit I: Introduction to forensic botany and its importance. General plant classification based on morphology, anatomy, systematics and palynology.

Unit II: Various types of planktons and diatoms and their forensic importance. Isolation and identification of pollen grains. Identification and matching of various types of wood, timber varieties, seeds and leaves.

Unit III: Various types of poisonous plants and their toxins – *Abrus precatorius*, *Aconitum* spp., *Cinchona* spp., *Atropa belladonna*, *Gloriosa superba*, *Jatropha curcas*, *Nerium indicum*, *Nicotiana glauca*, *Ricinus communis* and *Thevetia peruviana*. Abused drug yielding plants – *Opium*, *Cannabis*, *Cocaine*, *Tobacco*, *Datura* and *Psilocybin* mushroom.

Unit IV: Collection and preservation of botanical evidences: Botanical samples, outdoor crime scene consideration. Analysis of samples, DNA analysis, typing and barcoding.

Unit V: Classic forensic botany cases: Case histories by using plant anatomy and systematics, palynology, plant ecology, limnology, plant molecular biology and Drug enforcement. Introduction to quarantine and narcotic bureau.

Text Books:

1. Coyle HM, Forensic Botany: Principles and applications to criminal casework, 1st Edition, CRC Press Pvt Ltd, Taylor and Francis Group, United Kingdom, 2004.
2. Hall DW and Byrd J, Forensic Botany: a practical guide. 1st Edition, Wiley-Blackwell publishers Pvt Ltd, United States, 2012.
3. James SH, Nordby JJ, Bell S, Forensic Science: An Introduction to Scientific and Investigative Techniques, 4th Edition, CRC Press Pvt Ltd, Taylor and Francis Group, United Kingdom, 2015.

Books for Reference:

1. Ganesslen RE, Essentials of Forensic Science: Blood, Bugs and Plants, 1st Edition, Facts on File Publishers Pvt Ltd, New York, United States, 2008.
2. Wessels T, Forensics – A Field Guide to Reading the Forested Landscape, 1st Edition, Norton and Company Pvt Ltd, New York, United states, 2013.

Web Reference:

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Paper					Hours	Credits			
II	20UBOVAC2	FORENSIC BOTANY					25	-			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓	✓			✓	✓		✓		✓	
CO2	✓	✓			✓	✓		✓		✓	
CO3	✓	✓			✓	✓		✓		✓	
CO4	✓	✓			✓	✓		✓		✓	
CO5	✓	✓	✓		✓	✓		✓		✓	
Number of Matches= 33, Relationship : Moderate											

Prepared by:

1. DR. A. ASLAM

Checked by:

1. DR. A. ASLAM