

Academic Year	2020-21
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**B.P.H.E. Society's
Ahmednagar College, Ahmednagar
Internal Quality Assurance Cell
CO, PO, and PSO Attainment Sheet**

Department Name	Botany
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Program Name	B. Sc (UG)
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Program Outcomes(PO)

PO1	Knowledge and understanding of the range of plant diversity in terms of structure, function and environmental relationships. The role of plants in the functioning of the ecosystem. A selection of more specialized, optional topics. Statistics as applied to biological data.
PO2	Intellectual skills – able to think logically and organize tasks into a structured form. Assimilate knowledge and ideas based on wide reading and through the internet.
PO3	Practical skills: Students learn to carry out practical work, in the field and in the laboratory, with minimal risk.
PO4	Scientific Knowledge: Apply the knowledge of basic science, life sciences and fundamental process of plants to study and analyze any plant form.
PO5	Problem analysis: Identify the taxonomic position of plants, formulate the research literature, and analyze non reported plants with substantiated conclusions using first principles and methods of nomenclature and classification in Botany.
PO6	Design/development of solutions: Design solutions from medicinal plants for health problems, disorders and disease of human beings and estimate the phytochemical content of plants which meet the specified needs to appropriate consideration for the public health
PO7	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern instruments and equipments for Biochemical estimation, Molecular Biology, Biotechnology, Plant Tissue culture experiments, cellular and physiological activities of plants with an understanding of the application and limitations.
PO8	Environment and sustainability: Understand the impact of the plant diversity in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO9	Ethics: Apply ethical principles and commit to environmental ethics and responsibilities and norms of the biodiversity conservation.
PO10	
PO11	
PO12	

Program Specific Outcome(PSO)

PSO1	The role of plants in the functioning of the ecosystem
PSO2	Able to think logically and organize tasks into a structured form.

PSO3	Students learn to carry out practical work, in the field and in the laboratory, with minimal risk.
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Class		F.Y.B.Sc.	Course Outcomes	Program Outcomes									PSOs		
Subject Code	11141			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	Plant Life and Utilization -1	CO1	2	3	2	2	2	2	2	2	2	2	2	1	
Semester No	I	CO2	3	1	2	2	2	1	2	2	2	2	2	2	
Teacher Name	Dr. Nisha H. Godse	CO3	2	3	3	2	1	1	2	2	2	2	2	2	
Course Outcomes		CO4	2	2	3	2	2	2	2	2	2	2	2	2	
	CO1	Students will understand the general classification of plants.	CO5	3	3	3	2	2	2	2	2	2	2	2	
	CO2	Ability to understand plant species diversity in world and India	Average	2.40	2.40	2.60	2.00	1.80	1.60	2.00	2.00	2.00	2.00	1.80	
	CO3	Students will able to understand the life cycle of Plant Kingdom.													
	CO4	Ability to understand the core concepts in Plant Kingdom													
	CO5	To understand the utilization of plants in every aspects													

Class		F.Y.B.Sc.	Course Outcomes	Program Outcomes									PSOs		
Subject Code	11142			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	Plant Morphology & Anatomy	CO1	2	3	2	2	3	3	1	2	2	2	2	1	
Semester No	I	CO2	3	3	3	2	1	1	3	2	3	2	3	2	
Teacher Name	Sudhir Bale	CO3	2	1	1	3	3	2	2	3	3	1	1	3	
Course Outcomes		CO4	2	2	3	3	2	3	3	2	2	3	2	2	
	CO1	Ability to understand Basic plant morphology	CO5	3	3	2	2	1	3	2	2	3	2	1	
	CO2	Able to understand basic types of inflorescence	Average	2.40	2.40	2.20	2.40	2.00	2.40	2.20	2.20	2.40	2.20	1.80	
	CO3	Ability to understand structure and deviations in the flower and fruits													

	CO4	Ability to understand internal organization of plant body
	CO5	Ability to understand types of tissues and their functions

Class		F.Y.B.Sc . Practicals	Course Outcomes	Program Outcomes									PSOs		
Subject Code	11143			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	Botany (Paper III) : Practicals		CO1	2	2	2	2	2	2	2	2	2	2	2	
Semester No	I		CO2	2	2	2	2	2	2	2	2	2	2	2	
Teacher Name	Dr. Nisha H. Godse		CO3	2	2	2	2	2	2	2	2	2	2	2	
Course Outcomes			CO4	2	2	2	2	2	2	2	2	2	2	2	
	CO1	Students will gain the Practical Knowledge of Algae, Fungi, Bryophytes, Pteridophytes	CO5	2	2	2	2	2	2	2	2	1	2	2	
	CO2	students will learn the Morphology and anatomy of stem, leaves and root	Average	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.80	2.00	2.00	
	CO3	ability to understand the inflorescence study													
	CO4	Ability to understand the study of Fruits													
	CO5	ability to understand the difference between monocot and dicot plants.													

Class		F.Y.B.Sc.	Course Outcomes	Program Outcomes									PSOs		
Subject Code	12141			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	Plant Life And Utilization -II		CO1	2	2	3	2	2	3	2	2	2	2	2	3
Semester No	II		CO2	2	2	2	2	2	2	2	2	2	2	2	
Teacher Name	Dr. Nisha H. Godse		CO3	3	3	2	2	2	2	2	2	2	2	2	
Course Outcomes			CO4	3	3	2	2	2	2	2	3	3	2	2	
	CO1	Ability to understand immense plant diversity of form, structure and reproduction	CO5	2	2	2	2	2	2	2	2	2	2	2	
	CO2	Ability to differentiate between higher cryptogams and thallophytes	Average	2.40	2.40	2.20	2.00	2.00	2.20	2.00	2.20	2.20	2.00	2.00	
	CO3	Ability to understand the core concept of Spermatophytes													
	CO4	Ability to understand the classification of Pteridophytes													

	CO5	Ability to understand the key concepts of Angiosperms and Gymnosperms
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Class		F.Y.B.Sc.	Course Outcomes	Program Outcomes									PSOs		
Subject Code	12142	Subject Name		Principles of Plant Sciences <th>PO1</th> <th>PO2</th> <th>PO3</th> <th>PO4</th> <th>PO5</th> <th>PO6</th> <th>PO7</th> <th>PO8</th> <th>PO9</th> <th>PSO1</th> <th>PSO2</th> <th>PSO3</th>	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2
Semester No	II	CO1	Ability to understand basic plant physiological processes like osmosis, diffusion etc.	2	3	2	2	3	3	1	3	2	1	2	3
Teacher Name	Sudhir Bale	CO2	Ability to understand phenomenon of plant growth and growth hormones	3	2	3	2	2	2	2	2	1	2	3	2
Course Outcomes			CO3	Ability to understand Plant cell structure and cell division	2	1	2	1	3	2	2	3	3	1	2
	CO4	Ability to understand basics of molecular biology and central dogma of MB	3	2	3	3	2	3	3	3	2	2	2	2	2
	CO5	Ability to understand DNA, RNA structure, DNA replication, chromosome organization	CO5	3	3	2	2	1	3	2	2	2	2	2	2
Average				2.60	2.20	2.40	2.00	2.20	2.60	2.00	2.40	2.00	2.00	2.00	2.20

Class		FYBSc	Course Outcomes	Program Outcomes									PSOs		
Subject Code	12143	Subject Name		BO 123: Practical based on BO 121 & BO 122	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2
Semester No	II	CO1	Able to Understands life cycle of <i>Nephrolepis</i> and <i>Cycas</i>	3	2	2	3	2	1	3	2	2	3	2	2
Teacher Name	Sudhir Bale	CO2		3	2	2	2	1	3	2	3	3	3	2	3
Course Outcomes			CO3	2	1	3	3	2	2	3	2	3	3	3	2
	CO4		CO4	2	3	2	2	3	2	2	2	2	3	3	3
	CO5		CO5	3	2	2	1	3	2	2	3	3	2	3	3

	CO2	Able to Understands Bentham and Hooker classification with example, Comparative account of dicot and monocot with example.	Average	2.60	2.00	2.20	2.20	2.20	2.00	2.40	2.40	2.60	2.80	2.60	2.60
	CO3	Able to Understands and observe the features of Prokaryotic cell and Eukaryotic Cell.													
	CO4	Hands on training on study mitosis and meiosis													
	CO5	Hands on experiance and realtime observation of Plasmolysis., DPD, etc.													

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Class		SYBSc	Course Outcomes	Program Outcomes									PSOs		
Subject Code	23141			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	Taxonomy of Angiosperm & Plant Ecology		CO1	3	3	3	3	3	2	2	2	2	2	2	2
Semester No	III		CO2	3	3	3	3	3	2	2	3	2	3	3	3
Teacher Name	Abhijit A Kulkarni		CO3	3	3	3	3	3	3	1	1	1	1	1	1
Course Outcomes			CO4	3	3	3	3	3	3	3	3	2	3	3	3
	CO1	Students should know the concept of taxonomy and systematics	CO5	3	3	3	3	3	2	2	3	1	3	3	3
	CO2	Classification systems, Binomial Nomenclature and taxonomic tools	Average	3.00	3.00	3.00	3.00	3.00	2.40	2.00	2.40	1.60	2.40	2.40	2.40
	CO3	Study of plant families from Polypetalae, Gamopetalae, Achlamydae and monocots													
	CO4	Students should get knowledge about ecology and its significance													
	CO5	Students should know the concept of ecological grouping of plants													

Class		SYBSc	Course Outcomes	Program Outcomes									PSOs		
Subject Code	23142			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	Plant Physiology		CO1	3	2	2	1	2	3	3	2	3	3	2	2
Semester No	III		CO2	2	3	3	3	3	3	2	2	3	2	2	2
Teacher Name	Mr. Sagar Bawake		CO3	3	2	2	2	3	2	2	2	3	2	3	3
Course Outcomes			CO4	2	3	2	3	2	3	2	3	3	2	2	3
	CO1	Ability to understand how vascular plants obtain water from the environment, concept of transpiration for absorption of water.	CO5	2	3	3	2	3	1	3	3	2	3	3	2
	CO2	Ability to understand cohesion-tension theory, Steward's hypothesis related to transpiration.	Average	2.40	2.60	2.40	2.20	2.60	2.40	2.40	2.40	2.80	2.40	2.40	2.40
	CO3	Ability to understand concept of antitranspirants, guttation, exudation.													

CO4	Ability to understand nitrogen metabolism in plants, symbiosis, non symbiotic association, BGA.
CO5	Ability to understand how plants flower, concept of seed dormancy, breaking of seed dormancy, photoperiodism, vernalization.

Class		SYBSc	Course Outcomes	Program Outcomes									PSOs		
Subject Code	23143			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	Practical based on BO 231 & BO 232		CO1	3	3	3	3	3	3	3	3	3	2	2	2
Semester No	III		CO2	3	3	3	3	3	3	3	3	3	3	3	3
Teacher Name	Prof. Abhijit Kulkarni		CO3	3	3	3	3	3	3	3	3	3	1	1	1
Course Outcomes			CO4	3	3	3	3	3	3	3	3	3	3	3	3
	CO1	Students have gained knowledge about various taxonomy terms and the tools used in taxonomy	CO5	3	3	3	3	3	3	3	3	3	3	3	3
	CO2	students have studied various plants belonging to various families	Average	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.40	2.40	2.40
	CO3	hands on practical on vegetation studies using quadrat method													
	CO4	performed various biochemical tests and determined physiological phenomenon													
	CO5	Have acquired knowledge and estimated various seed germination tests													

Class		SYBSc	Course Outcome	Program Outcomes									PSOs		
Subject Code	24141			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	Plant Anatomy and Embryology		CO1	3	3	3	3	3	3	2	2	2	2	2	2
Semester No	IV		CO2	3	3	3	3	3	2	3	2	3	3	3	3
Teacher Name	Dr. A A Kulkarni		CO3	3	3	3	3	3	3	2	3	2	1	1	1
Course Outcomes			CO4	3	3	3	3	3	2	3	2	2	3	3	3
	CO1	Students will learn various tissue systems and their role in plant organization	CO5	3	3	3	3	3	3	2	2	2	3	3	3
	CO2	Students will get the knowledge of how plants grow in bigger size	Average	3.00	3.00	3.00	3.00	3.00	2.60	2.40	2.20	2.20	2.40	2.40	2.40
	CO3	Students will acquire knowledge about development and function of sex organs in plants													

	CO4	Students will learn about development of male and female gametes in plants
	CO5	Students will acquire knowledge about significance of double fertilization and triple fusion and various types of endosperms

Class		SYBSc	Course Outcomes	Program Outcomes									PSOs		
Subject Code	24142			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	Plant Biotechnology		CO1	2	2	3	2	3	2	2	3	3	2	2	
Semester No	IV		CO2	3	2	2	3	3	3	3	2	2	3	3	
Teacher Name	Mr. Sagar Bawake		CO3	3	2	3	2	2	2	3	2	2	3	2	
Course Outcomes			CO4	3	3	2	2	3	3	3	3	2	3	2	
	CO1	Students will understand Current status of biotechnology in India	CO5	2	3	2	3	2	2	3	3	3	2	3	
	CO2	Ability to understand plant tissue culture, their types, application in field of agriculture, concept of single cell protein and their application in human's life.	Average	2.60	2.40	2.40	2.40	2.60	2.40	2.80	2.60	2.40	2.80	2.60	
	CO3	ability to understand plant genetic engineering, its types and application in field of agriculture.													
	CO4	Developed ability to understand genomics, proteomics and bioinformatics as well as they will be able to understand the genome sequencing.													
	CO5	Developing ability to understand phytoremediation processes to remove pollution from soil water etc. by using plants bacteria, as well as to know about biofuel types and making process.													

Class		SYBSc	Course Outcome	Program Outcomes									PSOs		
Subject Code	24143			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	BO 243: Practical based on BO 241 & BO 242		CO1	3	1	3	3	1	1	2	1	1	2	2	
Semester No	IV		CO2	3	1	3	2	1	1	2	1	2	2	3	
Teacher Name	Mr.Sagar Bawake		CO3	3	1	3	3	1	1	3	1	3	3	2	
Course Outcomes			CO4	3	1	3	2	1	1	3	1	3	3	2	

	CO1	Hands on experience to observe various epidermal tissues, types of secondary growth, mechanical tissue distribution.	CO5	3	2	3	3	2	1	3	1	3	3	2	3
	CO2	Developed Ability to understands and interpretation of tetra sporangiate anther, various types of ovules and Study of dicot and monocot embryo.	Average	3.00	1.20	3.00	2.60	1.20	1.00	2.60	1.00	2.40	2.60	2.00	2.80
	CO3	Hands on training of instruments and learning process of plants tissue culture.													
	CO4	Hands on traing on Preparation & sterilization of MS medium, Surface sterilization and Inoculation of nodal sector, leaf, anther and maize embryo													
	CO5	Hands on traing on Laboratory cultivation of Spirulina, demonstration on transgenic crop, various intruments used in biotechnology and in Botany, and study tour to increase the knowledge.													

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Class		TYBSc	Course Outcomes	Program Outcomes									PSOs		
Subject Code	91413	Subject Name		CO1	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2
Semester No	III	Cryptogamic Botany (Algae and Fungi)	CO2	2	1	2	2	2	3	1	2	3	2	3	1
Teacher Name	Dr. Nisha H. Godse		CO3	2	3	3	3	3	1	3	2	1	3	2	3
Course Outcomes			CO4	3	3	3	3	3	2	3	2	1	3	3	3
	CO1	comprehension of introduction of cryptogams and its types	CO5	3	2	2	3	3	3	3	2	2	2	2	2
	CO2	Able to understand the core concept of thallophyta with examples	Average	2.40	2.20	2.20	2.60	2.80	2.20	2.40	2.00	1.80	2.20	2.40	2.00
	CO3	Able to understand the basic concepts, characteristics, life cycle of Algae													
	CO4	Able to understand the general concepts and thallus organization of fungi													
	CO5	Able to understand the difference between Lower and Higher Cryptogamic Plants													

Class		TYBSc	Course Outcomes	Program Outcomes									PSOs		
Subject Code	91423	Subject Name		CO1	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2
Semester No	III	Cell and Molecular biology	CO2	2	1	2	2	2	3	1	2	3	2	3	1
Teacher Name	Sudhir Bale		CO3	2	3	3	2	3	1	3	2	1	3	2	3
Course Outcomes			CO4	3	3	3	3	3	2	3	2	1	3	3	3
	CO1	Ability to understand basics of Cell Biology: Structure and functions of cell organelles	CO5	3	2	2	3	3	3	3	2	2	2	2	2
	CO2	Ability to understand structure and function of nucleus and chromosomes	Average	2.25	2.25	2.25	2.25	2.80	2.20	2.40	2.00	1.80	2.20	2.40	2.00
	CO3	Ability to understand molecular basis of life													

	CO4	Ability to understand structure, replication, alterations in the genetic material
	CO5	Ability to understand gene organization, transcription, translation and regulation of gene expression

Class		TYBSc	Course Outcomes	Program Outcomes									PSOs		
Subject Code	91433			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	Genetics and Evolution		CO1	3	3	3	3	3	3	3	3	3	3	3	3
Semester No	III		CO2	3	3	3	3	3	2	3	2	2	3	3	3
Teacher Name	Prof. Abhijit Kulkarni		CO3	3	3	3	3	3	3	3	3	3	3	3	3
Course Outcomes			CO4	3	3	3	3	3	3	3	3	3	2	2	2
	CO1	Students will learn introduction to genetics and get acquainted with various branches of genetics	CO5	3	3	3	2	3	3	3	2	3	3	3	3
	CO2	Problem solving related to Mendel's experiments will help students to learn applications of statistical tools	Average	3.00	3.00	3.00	2.80	3.00	2.80	3.00	2.60	2.80	2.80	2.80	2.80
	CO3	Topics related to Cytogenetics will help students to know about chromosomal mutations and its effects													
	CO4	Students will get the knowledge of how earth originated and the events of evolution													
	CO5	Knowledge of theories of organic evolution and formation of fossils will help them to study phylogenetic relationship													

Class		TYBSc	Course Outcomes	Program Outcomes									PSOs		
Subject Code	91443			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	Spermatophyta and Paleo Botany		CO1	2	2	2	3	3	3	2	1	2	2	2	2
Semester No	III		CO2	3	2	2	2	2	3	2	2	2	2	2	3
Teacher Name	Prof. B. M. Gaykar		CO3	2	3	3	3	2	3	2	3	3	3	3	2
Course Outcomes			CO4	2	2	3	2	2	2	2	2	2	3	3	2
	CO1	Students get knowledge of higher plant diversity	CO5	2	2	3	2	2	2	2	2	2	3	3	2

	CO2	Students can identify the plants scientifically	Average	2.20	2.20	2.60	2.40	2.20	2.60	2.00	2.00	2.20	2.60	2.60	2.20
	CO3	They would classify the plants on the basis of characters													
	CO4	The age of plants and their evolutionary trend can be studied properly													
	CO5	Students will learn various classification systems for plants identification.													

Class		TYBSc	Course Outcomes	Program Outcomes									PSOs		
Subject Code	91453			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	Horticulture and Floriculture		CO1	2	2	2	3	3	3	2	1	2	2	2	2
Semester No	III		CO2	3	2	2	2	2	3	2	2	2	2	2	3
Teacher Name	Prof. Abhijit Kulkarni		CO3	2	3	3	3	2	3	2	3	3	3	3	2
Course Outcomes			CO4	2	2	3	2	2	2	2	2	2	3	3	2
	CO1	Students will get the knowledge about horticultural plants, its marketing	CO5	2	2	3	2	2	2	2	2	2	3	3	2
	CO2	students will get acquainted with methods of propagation of horticultural plants	Average	2.20	2.20	2.60	2.40	2.20	2.60	2.00	2.00	2.20	2.60	2.60	2.20
	CO3	students will get the knowledge about how pruning and training of horticultural crops													
	CO4	production of dry flowers, cut flowers for market													
	CO5	concept of ornamental plants, vegetable and fruit gardening													

Class		TYBSc	Course Outcomes	Program Outcomes									PSOs		
Subject Code	91463			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	Computational Botany		CO1	3	2	3	2	3	2	2	2	1	2	2	2
Semester No	III		CO2	2	2	2	3	3	3	2	1	3	2	3	2
Teacher Name	Dr. Prasad Lamrood		CO3	2	3	2	2	2	2	3	3	2	3	2	3
Course Outcomes			CO4	2	2	2	3	3	3	2	1	3	2	3	2
	CO1	Students will get introduced with Biostatistics, various terms, sample and methods	CO5	2	3	2	2	2	2	3	3	2	3	2	3
	CO2	Students will know about sampling the data and representation of data	Average	2.20	2.40	2.20	2.40	2.60	2.40	2.40	2.00	2.20	2.40	2.40	2.40

	CO3	Central tendency and Various measures , measures of dispersion
	CO4	Concept of probability, types, statistical tests to compare mean, correlation and regression
	CO5	Various seed testing, plant growth indices, vegetation data analysis, satellite data analysis and indices

Course Outcomes			CO4	2	2	3	2	2	2	2	3	2	3	3	3
	CO1	Ability to understand problems on genetics, Polytene chromosomes, translocation studies	CO5	2	2	2	2	2	2	2	2	3	2	2	1
	CO2	Ability to understand anatomy of gymnosperms, fossile specimens	Average	2.00	2.00	2.50	2.00	2.00	2.00	2.00	2.50	2.50	2.50	2.50	2.00
	CO3	Ability to understand BOD, physiochemical properties of water, pH etc													
	CO4	Ability to understand ecological data with the help of GPS and geographical maps													
	CO5	Ability to understand Hybridization techniques, mutation breeding, seed processing etc.													

Class	TYBSc	Course Outcomes	Program Outcomes									PSOs		
Subject Code	91494		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	VI	CO1	3	2	1	1	3	2	2	2	1	1	2	3
Semester No	Prasad Y. Lamrood	CO2	1	3	2	2	2	1	3	2	3	2	3	2
Teacher Name		CO3	2	1	2	3	1	3	2	1	2	3	1	2
Course Outcomes		CO4	2	2	3	2	2	2	2	3	2	3	3	3
	CO1	Students will learn to isolate and culture the pathogene	CO5	2	2	2	2	2	2	2	3	2	2	1
	CO2	Will learn about various plant diseases by macro and micromorphology.	Average	2.00	2.00	2.00	2.00	2.00	2.00	2.20	2.00	2.20	2.20	2.20
	CO3	Will learn to prepare Bordeaux mixture and paste, Jivamrut, Learn about Koch's postulate												
	CO4	Learn about geological time scale and various fossile tupes, Organic evolution												
	CO5	Numerical problems on Population genetics												

Class		Course Outcomes	Program Outcomes									PSOs		
Subject Code			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name		CO1												
Semester No		CO2												
Teacher Name		CO3												
Course Outcomes		CO4												
	CO1	CO5												
	CO2	Average	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	CO3													
	CO4													
	CO5													

Class		Course Outcomes	Program Outcomes									PSOs		
Subject Code			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name		CO1												
Semester No		CO2												
Teacher Name		CO3												
Course Outcomes		CO4												
	CO1	CO5												
	CO2	Average	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	CO3													
	CO4													
	CO5													

Class		Course Outcomes	Program Outcomes									PSOs		
Subject Code			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name		CO1												
Semester No		CO2												
Teacher Name		CO3												
Course Outcomes		CO4												
	CO1	CO5												
	CO2	Average	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

	CO3	
	CO4	
	CO5	

Class		Course Outcomes	Program Outcomes									PSOs		
Subject Code			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name		CO1												
Semester No		CO2												
Teacher Name		CO3												
Course Outcomes		CO4												
	CO1	CO5												
	CO2	Average	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	CO3													
	CO4													
	CO5													

Class		Course Outcomes	Program Outcomes									PSOs		
Subject Code			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name		CO1												
Semester No		CO2												
Teacher Name		CO3												
Course Outcomes		CO4												
	CO1	CO5												
	CO2	Average	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	CO3													
	CO4													
	CO5													

Class		Course Outcomes	Program Outcomes									PSOs		
Subject Code			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name		CO1												
Semester No		CO2												
Teacher Name		CO3												
Course Outcomes		CO4												
	CO1	CO5												
	CO2	Average	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

	CO3	
	CO4	
	CO5	

Class		Course Outcomes	Program Outcomes									PSOs		
Subject Code			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name		CO1												
Semester No		CO2												
Teacher Name		CO3												
Course Outcomes		CO4												
	CO1	CO5												
	CO2	Average	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	CO3													
	CO4													
	CO5													

CO-PO Mapping

		Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	
FY	FY	1	11141	2.40	2.40	2.60	2.00	1.80	1.60	2.00	2.00	2.00
		2	11142	2.40	2.40	2.20	2.40	2.00	2.40	2.20	2.20	2.40
		3	11143	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.80
		4	12141	2.40	2.40	2.20	2.00	2.00	2.20	2.00	2.20	2.20
		5	12142	2.60	2.20	2.40	2.00	2.20	2.60	2.00	2.40	2.00
		6	12143	2.60	2.00	2.20	2.20	2.20	2.00	2.40	2.40	2.60
SY	SY	1	23141	3.00	3.00	3.00	3.00	3.00	2.40	2.00	2.40	1.60
		2	23142	2.40	2.60	2.40	2.20	2.60	2.40	2.40	2.40	2.80
		3	23143	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		4	24141	3.00	3.00	3.00	3.00	3.00	2.60	2.40	2.20	2.20
		5	24142	2.60	2.40	2.40	2.40	2.60	2.40	2.80	2.60	2.40
		6	24143	3.00	1.20	3.00	2.60	1.20	1.00	2.60	1.00	2.40
TY	TY	1	91413	2.40	2.20	2.20	2.60	2.80	2.20	2.40	2.00	1.80
		2	91423	2.25	2.25	2.25	2.25	2.80	2.20	2.40	2.00	1.80
		3	91433	3.00	3.00	3.00	2.80	3.00	2.80	3.00	2.60	2.80
		4	91443	2.20	2.20	2.60	2.40	2.20	2.60	2.00	2.00	2.20
		5	91453	2.20	2.20	2.60	2.40	2.20	2.60	2.00	2.00	2.20
		6	91463	2.20	2.40	2.20	2.40	2.60	2.40	2.40	2.00	2.20
		14	91463	2.00	2.00	2.50	2.00	2.00	2.00	2.00	2.50	2.50
		15	91494	2.00	2.00	2.00	2.00	2.00	2.00	2.20	2.00	2.20

CO-PO ATTAINMENT

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
2.4	2.4	2.6	2	1.8	1.6	2	2	2
2.4	2.4	2.2	2.4	2	2.4	2.2	2.2	2.4
1.786667	1.786667	1.786667	1.786666667	1.786667	1.786667	1.786667	1.786667	1.608
2.144	2.144	1.965333	1.786666667	1.786667	1.965333	1.786667	1.965333	1.965333
2.322667	1.965333	2.144	1.786666667	1.965333	2.322667	1.786667	2.144	1.786667
2.322667	1.786667	1.965333	1.965333333	1.965333	1.786667	2.144	2.144	2.322667
3	3	3	3	3	2.4	2	2.4	1.6
2.4	2.6	2.4	2.2	2.6	2.4	2.4	2.4	2.8
3	3	3	3	3	3	3	3	3
3	3	3	3	3	2.6	2.4	2.2	2.2
2.6	2.4	2.4	2.4	2.6	2.4	2.8	2.6	2.4
3	1.2	3	2.6	1.2	1	2.6	1	2.4
1.632	1.496	1.496	1.768	1.904	1.496	1.632	1.36	1.224
1.53	1.53	1.53	1.53	1.904	1.496	1.632	1.36	1.224
3	3	3	2.8	3	2.8	3	2.6	2.8
2.2	2.2	2.6	2.4	2.2	2.6	2	2	2.2
2.2	2.2	2.6	2.4	2.2	2.6	2	2	2.2
2.2	2.4	2.2	2.4	2.6	2.4	2.4	2	2.2
2	2	2.5	2	2	2	2	2.5	2.5
2	2	2	2	2	2	2.2	2	2.2

Percentage CO-PO ATTAINMENT

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100
89.33333	89.33333	89.33333	89.33333	89.33333	89.33333	89.33333	89.33333	89.33333
89.33333	89.33333	89.33333	89.33333	89.33333	89.33333	89.33333	89.33333	89.33333
89.33333	89.33333	89.33333	89.33333	89.33333	89.33333	89.33333	89.33333	89.33333
89.33333	89.33333	89.33333	89.33333	89.33333	89.33333	89.33333	89.33333	89.33333
100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100
68	68	68	68	68	68	68	68	68
68	68	68	68	68	68	68	68	68
100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100

CO-PSO MAPPING

CO-PSO ATTAINMENT

Percentage CO-PSO ATTAINMENT

FY
SY
TY

	Course	PSO1	PSO2	PSO3
1	11141	2.00	2.00	1.80
2	11142	2.20	2.00	1.80
3	11143	2.00	2.00	2.00
4	12141	2.00	2.00	2.20
5	12142	2.00	2.00	2.20
6	12143	2.80	2.60	2.60
1	23141	2.40	2.40	2.40
2	23142	2.40	2.40	2.40
3	23143	2.40	2.40	2.40
4	24141	2.40	2.40	2.40
5	24142	2.80	2.60	2.40
6	24143	2.60	2.00	2.80
1	91413	2.20	2.40	2.00
2	91423	2.20	2.40	2.00
3	91433	2.80	2.80	2.80
4	91443	2.60	2.60	2.20
5	91453	2.60	2.60	2.20
6	91463	2.40	2.40	2.40
14	91463	2.50	2.50	2.00
15	91494	2.20	2.20	2.20

	Course	PSO1	PSO2	PSO3
	11141	2	2	1.8
	11142	2.2	2	1.8
	11143	1.786667	1.786667	1.786667
	12141	1.786667	1.786667	1.965333
	12142	1.786667	1.786667	1.965333
	12143	2.501333	2.322667	2.322667
	23141	2.4	2.4	2.4
	23142	2.4	2.4	2.4
	23143	2.4	2.4	2.4
	24141	2.4	2.4	2.4
	24142	2.8	2.6	2.4
	24143	2.6	2	2.8
	91413	1.496	1.632	1.36
	91423	1.496	1.632	1.36
	91433	2.8	2.8	2.8
	91443	2.6	2.6	2.2
	91453	2.6	2.6	2.2
	91463	2.4	2.4	2.4
	91463	2.5	2.5	2
	91494	2.2	2.2	2.2

	Course	PSO1	PSO2	PSO3
	11141	100	100	100
	11142	100	100	100
	11143	89.33333	89.33333	89.33333
	12141	89.33333	89.33333	89.33333
	12142	89.33333	89.33333	89.33333
	12143	89.33333	89.33333	89.33333
	23141	100	100	100
	23142	100	100	100
	23143	100	100	100
	24141	100	100	100
	24142	100	100	100
	24143	100	100	100
	91413	68	68	68
	91423	68	68	68
	91433	100	100	100
	91443	100	100	100
	91453	100	100	100
	91463	100	100	100
	91463	100	100	100
	91494	100	100	100