Academic Year	2021-22

B.P.H.E. Society's
Ahmednagar College, Ahmednagar
Internal Quality Assurance Cell
CO, PO, and PSO Attainment Sheet

Department Name	Botany

Program Name	B.Sc.(UG)

Program Outcomes(PO)

PO1	Knowledge and understanding of the range of plant diversity in terms of structure, function and environmental relationships. The role
PO2	Intellectual skills – able to think logically and organize tasks into a structured form. Assimilate knowledge and ideas based on wide
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
PO5	Problem analysis: Identify the taxonomic position of plants, formulate the research literature, and analyze non reported plants with
PO6	Design/development of solutions: Design solutions from medicinal plants for health problems, disorders and disease of human beings
PO7	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern instruments and equipments for
PO8	Environment and sustainability: Understand the impact of the plant diversity in societal and environmental contexts, and demonstrate
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.

Academic Year :	**2021-22**

Class		F.Y.B.Sc.
Subject Code		11141
Subject Name		Plant life and utilization
Semester No		1
Teacher Name		Dr. Nisha H. Godse
Course Outcomes		
	CO1	Students will understand the general classfication of plants
	CO2	Ability to understand plant species diversity in world and India
	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

Course Outcomes	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	2	3	2	2	2	2	2	2	2	2	2	1
CO2	3	1	2	2	2	1	2	2	2	2	2	2
CO3	2	3	3	2	1	1	2	2	2	2	2	2
CO4	2	2	3	2	2	2	2	2	2	2	2	2
CO5	3	3	3	2	2	2	2	2	2	2	2	2
Average	2.40	2.40	2.60	2.00	1.80	1.60	2.00	2.00	2.00	2.00	2.00	1.80

Class		F.Y. B.Sc.
Subject Code		11142
Subject Name		Plant Morphology & Anatomy
Semester No		I
Teacher Name		Sudhir Bale
Course Outcomes		
	CO1	Ability to understand Basic plant morphology
	CO2	Able to understand basic types of inflorescence
	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

Course Outcomes	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	2	3	2	2	3	3	1	2	2	3	2	2
CO2	3	3	3	2	1	1	3	2	3	1	2	3
CO3	2	1	1	3	3	2	2	3	3	3	3	2
CO4	2	2	3	3	2	3	3	2	2	2	2	2
CO5	3	3	2	2	1	3	2	2	2	2	3	
Average	2.40	2.40	2.20	2.40	2.00	2.40	2.20	2.20	2.40	2.20	2.40	2.25

Class		F.Y.B.Sc

Course Outcomes	Program Outcomes	PSOs

Subject Code	11143
Subject Name	Botany Practicals
Semester No	First
Teacher Name	Dr. Nisha H. Godse
Course Outcomes	
CO1	Students will gain the Practical Knowledge of Alage,Fungi, Bryophytes, Pteriodophytes
CO2	Students will learn the Morhology and anatomy of stem, leaves and root
CO3	Ability to understand the inflorescence study
CO4	Ability to understand the study of Fruits
CO5	Ability to undesrtand the difference between Monocot and Dicot plants.

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	2	2	2	2	2	2	2	2	2	2	2	2
CO2	2	2	2	2	2	2	2	2	2	2	2	2
CO3	2	2	2	2	2	2	2	2	2	2	2	2
CO4	2	2	2	2	2	2	2	2	2	2	2	2
CO5	2	2	2	2	2	2	2	2	1	2	2	2
Average	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.80	2.00	2.00	2.00

Class	F.Y.B.Sc
Subject Code	12141
Subject Name	Plant Life and Utilization -II
Semester No	2
Teacher Name	Dr. Nisha H. Godse
Course Outcomes	
CO1	Students will understand the basic concept of Plant diversity
CO2	Ability to understand the concepts of Thallophytes
CO3	Students will able to differentiate between Lower and Higher Cryptogams
CO4	Students will learn the economic importance of Plant Kingdom
CO5	Students will learn the core concepts and classification of Spermatophytes

Course Outcomes	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	2	2	3	2	2	3	2	2	2	2	2	3
CO2	2	2	2	2	2	2	2	2	2	2	2	2
CO3	3	3	2	2	2	2	2	2	2	2	2	2
CO4	3	3	2	2	2	2	2	3	3	2	2	2
CO5	2	2	2	2	2	2	2	2	2	2	2	2
Average	2.40	2.40	2.20	2.00	2.00	2.20	2.00	2.20	2.20	2.00	2.00	2.20

Class	F.Y.B.Sc.
Subject Code	12142
Subject Name	Principles of Plant Sciences
Semester No	II
Teacher Name	Sudhir Bale
Course Outcomes	

Course Outcomes	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	2	3	2	2	3	3	1	2	2	2	2	2
CO2	3	3	3	2	1	1	3	2	3	3	2	3
CO3	2	1	1	3	3	2	2	3	3	1	3	1
CO4	2	2	3	3	2	3	3	2	2	2	2	3

	CO1	Ability to understand basic plant physiological processes like osmosis, diffusion etc.	CO5	3	3	2	2	1	3	2	2	2	1	3	2
	CO2	Ability to understand phenomenon of plant growth and growth hormones	Average	2.40	2.40	2.20	2.40	2.00	2.40	2.20	2.20	2.40	1.80	2.40	2.20
	CO3	Ability to understand Plant cell structure and cell division													
	CO4	Ability to understand basics of molecular biology and central dogma of MB													
	CO5	Ability to understand DNA, RNA structure, DNA replication, chromosome organization													

Class	FYBSc	Course Outcomes	Program Outcomes									PSOs		
Subject Code	12143		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	BO 123: Practical based on BO 121 & BO 122	CO1	3	2	2	3	2	1	3	2	2	3	2	2
Semester No	II	CO2	3	2	2	2	1	3	2	3	3	3	2	3
Teacher Name	Sudhir Bale	CO3	2	1	3	3	2	2	3	2	3	3	3	2
Course Outcomes		CO4	2	3	2	2	3	2	2	2	2	3	3	3
	CO1	Able to Understands life cycle of *Nephrolepis* and *Cycas*	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.													

Academic Year :	**2021-22**

Class		S.Y. BSc.	Course Outcomes	**Program Outcomes**									**PSOs**		
Subject Code		23141		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name		Angiosperm Taxonomy & Plant Ecology	CO1	3	3	3	3	3	2	2	2	2	3	3	2
Semester No		III	CO2	3	3	3	3	3	2	2	3	2	3	3	2
Teacher Name		Abhijit A Kulkarni	CO3	3	3	3	3	3	3	1	1	2	3	3	3
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	3	3	3	2
	CO2	Classification systems, Bionomial Nomenclature and taxonomic tools	Average	3.00	3.00	3.00	3.00	3.00	2.40	2.00	2.40	2.20	3.00	3.00	2.40
	CO3	Study of plant families from Polypetalae, Gamopetalae ,Achlamydae and monocots													
	CO4	Students should get knowlwdge about eology 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 antitraspirants, guttation, exudation.													
	CO4	Ability to undersatnd nitrogen metabolism in plants, symbiosis, non symbiotic association, BGA.													
	CO5	Ability to understands how plants flowers, concept of seed dormancy, breaking of seed dormancy, photoperiodism, vernalization.													

Class	SYBSc
Subject Code	23143
Subject Name	Botany Practical
Semester No	III
Teacher Name	Frof. Abhijit Kulkarni

Course Outcomes		
	CO1	Students have gained knowledge about various taxonomy terms and the tools used in taxonomy
	CO2	students have studied various plants belonging to various families
	CO3	hands on practical on vegetation studies using quadrat method
	CO4	performed various biochemical tests and determined physiological phenomenon
	CO5	Have aquired knowledge and estimated various seed germination tests
		Students went for Botanical excursion and aquired knowledge about the biodiversity and various ecological adaptations

Course Outcomes	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	3	3	3	3	3	3	3	3	3	3	3	3
CO2	3	3	3	3	3	3	3	3	3	3	3	3
CO3	3	3	3	3	3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3	3	3	3	3
Average	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Class	S.Y.B.Sc.
Subject Code	24241
Subject Name	Plant Anatomy and Embryology
Semester No	IV
Teacher Name	Dr. A A Kulkarni

Course Outcomes		
	CO1	Students will learn various tissue systems and their role in plant organization
	CO2	Students will get the knowledge of how plants grow in bigger size
	CO3	Students will aquire 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 aquire knowledge about significance of double fertilization and triple fussion and various tyoes of endosperms

Course Outcomes	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	3	3	3	3	3	2	2	2	2	2	2	2
CO2	3	3	3	3	3	2	2	3	2	3	3	3
CO3	3	3	3	3	3	3	1	1	1	1	1	1
CO4	3	3	3	3	3	3	3	3	2	3	3	3
CO5	3	3	3	3	3	2	2	3	1	3	3	3
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

Class		SYBSc
Subject Code		24142
Subject Name		Plant Biotechnolgy
Semester No		IV
Teacher Name		Mr.Sagar Bawake
Course Outcomes		
	CO1	Students will understands Current status of biotechnology in India
	CO2	Ability to understands plant tissue culture, there types, application in field of agriculture, concept of single cell protein and there application in human's life.
	CO3	ability to understands plant genetic engineering, its types and application in field of agriculture.
	CO4	Developed ability to understand genomics, proteiomics and bioinformatics as well as they will able to understands the genome sequencing.
	CO5	Developing ability to understands phytoremidiation processes to remove pollution from soil water etc. by using plants bacteria, as well as to know about biofules types and making process.

Course Outcomes	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	2	2	3	2	3	2	2	3	3	3	2	2
CO2	3	2	2	3	3	3	3	2	2	3	3	3
CO3	3	2	3	2	2	2	3	2	2	3	3	2
CO4	3	3	2	2	3	3	3	3	2	3	2	2
CO5	2	3	2	3	2	2	3	3	3	2	3	3
Average	2.60	2.40	2.40	2.40	2.60	2.40	2.80	2.60	2.40	2.80	2.60	2.40

Class		SYBSc
Subject Code		24143
Subject Name		BO 243: Practical based on BO 241 & BO 242
Semester No		IV
Teacher Name		Mr.Sagar Bawake
Course Outcomes		
	CO1	Hands on experience to observe various epidermal tissues, types of secondary growth, mechanical tissue distribution.
	CO2	Developed Ability to understands and interpretation of tetra sporangiate anther, various types of ovules and Study of dicot and monocot embryo.
	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

Course Outcomes	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	3	1	3	3	1	1	2	1	1	2	2	3
CO2	3	1	3	2	1	1	2	1	2	2	2	3
CO3	3	1	3	3	1	1	3	1	3	3	2	3
CO4	3	1	3	2	1	1	3	1	3	3	2	2
CO5	3	2	3	3	2	1	3	1	3	3	2	3
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

	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.

Academic Year :	**2021-22**

Class		TYBSc
Subject Code		35141
Subject Name		Algae and Fungi
Semester No		V
Teacher Name		Dr. Sudhir Suryawanshi
Course Outcomes		
	CO1	Understand the diversity among Algae and Fungi
	CO2	Know the systematic, morphology and structure, of Algae and fungi
	CO3	Understand the life cycle pattern of Algae and fungi
	CO4	Understand the useful and harmful activities of Algae and fungi
	CO5	Students will recognize the diversity of Algae and Fungi

Course Outcomes	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	2	1	3	1	2	2	3	2	3	2	3	2
CO2	1	2	3	3	2	2	2	2	3	2	3	2
CO3	2	3	2	3	2	1	2	3	2	2	3	3
CO4	3	2	3	2	1	2	3	2	3	3	2	2
CO5	2	3	2	2	3	2	1	2	3	3	2	1
Average	2.00	2.20	2.60	2.20	2.00	1.80	2.20	2.20	2.80	2.40	2.60	2.00

Class		T.Y.B.Sc.
Subject Code		35142
Subject Name		Archegoniate
Semester No		V
Teacher Name		Dr. Nisha H. Godse
Course Outcomes		
	CO1	Students will understand the core concepts of Bryophytes and Pteriodophytes
	CO2	able to diiferentiate between lower Cryptogams and Higher Cryptogams.
	CO3	able to understand the Life Cycle of Bryophytes and Pteridophytes
	CO4	able to understand the various hypothesis of Bryophytes and Pteridophytes
	CO5	will understand the various theories about evolution in Bryophytes and Pteridophytes

Course Outcomes	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	2	3	3	2	3	1	3	3	2	2	3	1
CO2	3	1	3	2	3	3	3	2	3	2	3	2
CO3	2	3	1	2	2	3	2	1	2	1	3	2
CO4	2	1	1	3	2	3	1	2	2	1	1	3
CO5	3	3	3	2	1	3	3	3	1	3	1	1
Average	2.40	2.20	2.20	2.20	2.20	2.60	2.40	2.20	2.00	1.80	2.20	1.80

Class		TYBSc
Subject Code		35143
Subject Name		Spermatophyta and paleobotany
Semester No		V
Teacher Name		Prof. B. M. Gaykar
Course Outcomes		
	CO1	Students get knowledge of higher plant diversity
	CO2	Students can identify the plants scietifically
	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	Will able to leans classification systems.

Course Outcomes	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	2	2	2	3	3	3	2	1	2	2	2	2
CO2	3	2	2	2	2	3	2	2	2	2	2	3
CO3	2	3	3	3	2	3	2	3	3	3	3	2
CO4	2	2	3	2	2	2	2	2	2	3	3	2
CO5	2	2	3	2	2	2	2	2	2	3	3	2
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

Class		TYBSc
Subject Code		35144
Subject Name		Plant Ecology
Semester No		V
Teacher Name		Prasad Y. Lamrood
Course Outcomes		
	CO1	Students will understand the basic concepts, interrelationship of living world and envirnoment
	CO2	Will understand about biogeography, Population, community ecology
	CO3	Various biogeochemical cycles and their importances
	CO4	More applied aspects such as EIA,
	CO5	Environmental Audit, remote sensing and Ecological management

Course Outcomes	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	2	2	2	3	3	3	2	1	2	2	2	2
CO2	3	2	2	2	2	3	2	2	2	2	2	3
CO3	2	3	3	3	2	3	2	3	3	3	3	2
CO4	2	2	3	2	2	2	2	2	2	3	3	2
CO5	2	2	3	2	2	2	2	2	2	3	3	2
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

Class		T.Y. B.Sc.
Subject Code		35145
Subject Name		Cell and Molecular Biology
Semester No		V
Teacher Name		Sudhir Bale
Course Outcomes		
	CO1	Ability to understand concepts in Cell Biology, cell structure and function
	CO2	Ability to understand structure of nucleus & chromosomes
	CO3	Students will be able to understand molecular basis of life

Course Outcomes	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	2	3	2	2	3	3	1	2	2	2	2	3
CO2	3	3	3	2	1	1	3	2	3	3	1	2
CO3	2	1	1	3	3	2	2	3	3	2	3	1
CO4	2	2	3	3	2	3	3	2	2	3	2	3
CO5	3	3	2	2	1	3	2	2	2	2	2	2
Average	2.40	2.40	2.20	2.40	2.00	2.40	2.20	2.20	2.40	2.40	2.00	2.20

	CO4	Ability to understand Structure, replication, ulterations in the DNA
	CO5	Ability to understand Transcription, Translation, Genetic code etc.

Class		TYBSc
Subject Code		35146
Subject Name		Genetics
Semester No		V
Teacher Name		Abhijit A Kulkarni
Course Outcomes		
	CO1	Students will understand the concept of Genetics and its significance
	CO2	Students will get informed about different branches of genetics and its importance in organisms
	CO3	Students will understand the concept of Linkage mapping and how it is used in wholw genomw program
	CO4	Students will get the knowledge of different mutations and its effects
	CO5	Students will learn about use of polyploidy in crop improvement program

Course Outcome	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	3	3	3	3	3	3	3	3	3	3	3	3
CO2	3	3	3	3	3	3	3	3	3	3	3	3
CO3	3	3	3	3	3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3	2	3	2	2	2
CO5	3	3	3	3	3	3	2	3	2	3	3	3
Average	3.00	3.00	3.00	3.00	3.00	3.00	2.80	2.80	2.80	2.80	2.80	2.80

Class		TYBSc
Subject Code		351410
Subject Name		MEDICINAL BOTANY
Semester No		V
Teacher Name		Prasad Y. Lamrood (Credit I) Sudhir Bale (Credit II)
Course Outcomes		
	CO1	Students will learn about medicinal systems and medicinal plants
	CO2	Details of traditionsal medicinal ssytems such as Ayurveda, Siddha, Unani
	CO3	Various techniques to conserve endangered and endemic plants
	CO4	Ability to understand different techniques of propagation of medicinal plants
	CO5	Knowledge of Ethnobotany and folk medicines

Course Outcomes	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	2	2	1	2	3	2	2	2	2	2	3	2
CO2	2	3	3	2	3	1	3	2	1	2	1	3
CO3	3	3	3	3	3	2	3	2	1	3	3	3
CO4	2	2	2	2	2	2	2	2	2	2	2	2
CO5	3	2	3	2	2	3	2	2	3	3	2	3
Average	2.40	2.40	2.40	2.20	2.60	2.00	2.40	2.00	1.80	2.40	2.20	2.60

Class	TYBSc	Course	Program Outcomes PSOs

Subject Code	351411	Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	Plant Diversity and Human Health	CO1	2	2	3	2	3	2	2	2	1	2	2	2
Semester No	V	CO2	3	2	2	3	3	3	2	1	3	2	3	2
Teacher Name	Mr. Sagar Bawake	CO3	2	3	2	2	2	2	3	3	2	3	2	3
Course Outcomes		CO4	2	2	3	2	3	3	2	2	2	3	3	2
CO1	Students will learn about Plant diversity and their types	CO5	2	2	2	3	3	2	3	2	3	2	3	3
CO2	Will get introduced to agrobiodiversity, values and used of biodiversity, valuation methodologies	Average	2.20	2.20	2.40	2.40	2.80	2.40	2.40	2.00	2.20	2.40	2.60	2.40
CO3	Loss and management strattgies of Biodiversity, Methodologies for executation													
CO4	Ability to understand the concept of Biodiversity conservation, its methods and importance													
CO5	Ability to understand the role f plants in Human welfare													

Class	TYBSc	Course Outcomes	Program Outcomes									PSOs		
Subject Code	35147		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	Botany Practical on BO351, Bo 352	CO1	3	2	3	2	3	2	2	2	1	2	2	2
Semester No	V	CO2	2	2	2	3	3	3	2	1	3	2	3	2
Teacher Name	Prasad Y. 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 learnt indetailed thallus structure of representative members of Bryophyteand	CO5	2	3	2	2	2	2	3	3	2	3	2	3
CO2	Students learnt indetailed thallus structure of representative members of Pteridophyte	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	Students learnt indetailed thallus structure of representative members of Algar													
CO4	Students learnt indetailed thallus structure of representative members of Fungi													
CO5	Stelar evolution in Pteridophytes													

Class	TYBSc	Course Outcomes	Program Outcomes									PSOs		
Subject Code	35148		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	Practical based on BO 353, BO 354	CO1	3	3	3	3	3	3	3	3	3	3	3	3
Semester No	V	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	2	3	3	2	3
Course Outcomes		CO4	3	3	3	1	3	3	2	3	2	2	3	2
CO1	Students will get practical knowledge about the morpholocal characters and key to indentify plants	CO5	3	3	3	3	3	3	2	3	3	2	3	3
CO2	Students will get practicql knowledge about Gymnosperms and their sporohytic and gametophytic characters	Average	3.00	3.00	3.00	2.60	3.00	3.00	2.60	2.80	2.80	2.60	2.80	2.80
CO3	Students will get hands on tarining on determining the physico chemical characters of water bodies													

	CO4	Students will get the training on how to use GPS/Ultimeter and geographical maps
	CO5	students will practically work on vegetation studies

Class	TYBSc
Subject Code	35149
Subject Name	Botany Practical Paper III based on BO355 and BO356
Semester No	V
Teacher Name	Sudhir Bale
Course Outcomes	
CO1	Ability to perform basic cytological investigations
CO2	Ability of study mitosis and meiosis, C-metaphase, chromosome morphology
CO3	Ability to isolate and quantitate DNA, RNA
CO4	Ability to solve various problems based on Mendelian genetics, multiple allele, quntitative inheritance etc
CO5	Ability to study polytene chromosomes

Course Outcomes	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	3	3	3	3	2	3	2	2	3	2	2	3
CO2	2	3	2	3	3	2	2	3	3	3	3	2
CO3	3	2	3	2	2	3	3	2	3	3	2	3
CO4	2	2	3	2	2	2	2	3	2	2	3	3
CO5	3	3	3	3	3	3	3	3	3	2	2	2
Average	2.60	2.60	2.80	2.60	2.40	2.60	2.40	2.60	2.80	2.40	2.40	2.60

Class	T.Y.B.Sc
Subject Code	36141
Subject Name	Physiology
Semester No	VI
Teacher Name	Prof. B.M. Gaykar
Course Outcomes	
CO1	Students get metabolic processes of plants
CO2	Process of food synthesis in plants
CO3	Respiration in plants with exchange of gases
CO4	aquented with enzyme functions at various reactions
CO5	growth of plants and their development is calculated

Course Outcomes	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	2	2	2	3	2	2	2	2	2	3	2	1
CO2	2	2	3	2	2	1	1	1	2	2	1	2
CO3	1	2	2	1	1	2	2	2	1	1	1	3
CO4	1	2	1	1	3	1	2	1	1	2	3	1
CO5	2	1	2	1	2	2	1	3	2	1	2	2
Average	1.60	1.80	2.00	1.60	2.00	1.60	1.60	1.80	1.60	1.80	1.80	1.80

Class	T.Y.B.Sc
Subject Code	36142
Subject Name	Biochemistry

Course Outcomes	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	2	2	2	3	2	2	2	2	2	3	2	1

Semester No		VI	CO2	2	2	3	2	2	1	1	1	2	2	1	2
Teacher Name		Dr. Nisha H. Godse	CO3	1	2	2	1	1	2	2	2	1	1	1	3
Course Outcomes			CO4	1	2	1	1	3	1	2	1	1	2	3	1
	CO1	Students will learn the foundation of Biochemistry with various theories	CO5	2	1	2	1	2	2	1	3	2	1	2	2
	CO2	They will understand the physical properties,structure of water molecule	Average	1.60	1.80	2.00	1.60	2.00	1.60	1.60	1.80	1.60	1.80	1.80	1.80
	CO3	They will learn the core concept of enzymes													
	CO4	They will learn the classification, properties and Functions of lipids.													
	CO5	they will learn the core concept of Vitamins with source and functions and classification.													

Class		TYBSc	Course Outcomes	Program Outcomes									PSOs		
Subject Code		36143		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name		Plant Pathology	CO1	3	2	1	1	3	2	2	2	1	1	2	3
Semester No		VI	CO2	1	3	2	2	2	1	3	2	3	2	3	2
Teacher Name		Prasad Y. Lamrood	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 learnt about fundamentals of Plant pathology, basic terminologies, COntributions of Scients and Indian Institutes	CO5	2	2	2	2	2	2	2	2	3	2	2	1
	CO2	Concept of disease development and various defense stratgies exerted by the plant	Average	2.00	2.00	2.00	2.00	2.00	2.00	2.20	2.00	2.20	2.20	2.20	2.20
	CO3	Various parasitic Plant diseases and method for studying them.													
	CO4	Concept and types of non-parasitic diseases													
	CO5	Vaious method of plant disease control.													

Class		TYBSc	Course Outcomes	Program Outcomes									PSOs		
Subject Code		36145		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name		Advanced Plant Biotechnology	CO1	1	2	2	2	3	3	2	3	1	2	2	3
Semester No		VI	CO2	3	3	3	2	2	1	3	2	3	3	1	2
Teacher Name		Sudhir Bale	CO3	2	1	2	2	3	2	2	3	3	2	3	1
Course Outcomes			CO4	2	2	3	3	2	3	3	2	2	3	2	3
	CO1	Ability to understand Plant tissue culture technique	CO5	3	3	2	2	2	3	2	2	2	2	2	2
	CO2	Ability to understand techniques of Plant genetic engineering	Average	2.20	2.20	2.40	2.20	2.40	2.40	2.40	2.40	2.20	2.40	2.00	2.20

	CO3	Ability to understand the concept of cryopreservation and germplasm coservation
	CO4	Ability to understand Microbial Biotechnology
	CO5	Ability to understand oncept of Nano technology

Class		TYBSc
Subject Code		35146
Subject Name		Plant Breeding and Seed Technology
Semester No		IV
Teacher Name		Prof. Abhijit Kulkarni
Course Outcomes		
	CO1	Students will get the knowledge about objectives, scope and methods of plant improvement
	CO2	Students will get the knowledge about origin and production of polyploids and aneuploids for developing new varieties
	CO3	Students will get aquinted with seed technology, scope and marketing of seeds
	CO4	they will get the knowledge about seed certification, seed testing and seed production
	CO5	Study of seed pathology and occurance of seed pests and diseases will help them to identify and select healthy seed

Course Outcome	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	3	3	3	3	3	3	3	3	3	3	3	3
CO2	3	3	3	3	3	3	3	3	3	3	3	3
CO3	3	3	3	3	3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	2	3	2	2	2	2
CO5	3	3	3	3	3	2	3	3	3	3	3	3
Average	3.00	3.00	3.00	3.00	3.00	2.80	2.80	3.00	2.80	2.80	2.80	2.80

Class		T.Y.B.Sc.
Subject Code		361410
Subject Name		Nursery and Gardening Management
Semester No		VI
Teacher Name		Mr. Sagar Bawake
Course Outcomes		
	CO1	Developed ability to know how to runs nursary, there structure.
	CO2	Ability to understands seed dormancy and its types and how to overcome.
	CO3	Learning the types of Vegetative propogation and gardening prospects.
	CO4	Ability to learns computer applications in landscaping designing.

Course Outcomes	Program Outcomes									PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
CO1	3	2	2	3	3	3	2	3	2	2	3	2
CO2	3	2	3	3	2	3	3	2	3	2	3	3
CO3	2	2	1	2	1	3	2	2	3	2	3	2
CO4	3	1	2	1	3	3	3	2	2	2	3	3
CO5	2	1	1	3	2	2	1	3	1	2	2	3
Average	2.60	1.60	1.80	2.40	2.20	2.80	2.20	2.40	2.20	2.00	2.80	2.60

	CO5	Ability to understands how to grow crop plants and how to sold in markets an to understand market stratrgy.

			Course Outcomes	Program Outcomes									PSOs		
Class		T.Y.B.Sc.		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Code		361411	CO1	2	3	3	2	3	3	2	3	3	2	3	3
Subject Name		Biofertilizers	CO2	3	3	2	3	3	2	3	3	2	3	2	2
Semester No		VI	CO3	2	2	1	1	2	3	2	2	2	3	2	2
Teacher Name		Mr. Sagar Bawake	CO4	2	2	1	1	1	2	3	2	2	2	2	1
Course Outcomes			CO5	2	3	3	3	3	3	2	2	3	3	1	2
	CO1	Understanding the Scope and importance of Biofertilizers	Average	2.20	2.60	2.00	2.00	2.40	2.60	2.40	2.40	2.40	2.60	2.00	2.00
	CO2	Understanding isolation,identification and application of Bacterial biofertilizers.													
	CO3	Ability to understands and apply the knowledge of Algal Biofertilizer in filed of agriculture.													
	CO4	Ability to understands and apply the knowledge of Fungal Biofertilizers.													
	CO5	Understanding the importance of compost and manure.													

			Course Outcomes	Program Outcomes									PSOs		
Class		TYBSc		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Code		36147	CO1	3	3	3	3	3	3	3	2	2	3	2	2
Subject Name		Practical based on BO 361 & BO 362	CO2	2	3	2	3	3	2	2	3	3	2	2	3
Semester No		VI	CO3	3	2	2	2	2	3	3	2	3	2	2	2
Teacher Name		Prof. Abhijit Kulkarni	CO4	3	3	3	3	2	3	2	3	2	3	3	2
Course Outcomes			CO5	3	3	3	3	3	3	3	3	3	3	3	3
	CO1	Students will get practical knowledge about the morpholocal characters and key to indentify plants	Average	2.80	2.80	2.60	2.80	2.60	2.80	2.60	2.60	2.60	2.60	2.40	2.40
	CO2	Students will get practicql knowledge about Gymnosperms and their sporohytic and gametophytic characters													
	CO3	Students will get hands on tarining on determining the physico chemical characters of water bodies													
	CO4	Students will get the training on how to use GPS/Ultimeter and geographical maps													
	CO5														

			Course Outcomes	Program Outcomes									PSOs		
Class		TYBSc		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Code		36148	CO1	3	3	3	3	3	3	3	2	2	3	2	2
Subject Name		Botany Practical on BO 363, BO 364	CO2	2	3	2	3	3	2	2	3	3	2	2	3
Semester No		VI	CO3	3	2	2	2	2	3	3	2	3	2	2	2
Teacher Name		Prasad Y. Lamrood													

Course Outcomes			CO4	3	3	3	3	2	3	2	3	2	3	3	2
	CO1	Students will learn to isolate and culture the pathogene	CO5	3	3	3	3	3	3	3	3	3	3	3	3
	CO2	Will learn about various plant diseases by macro and micromorphology.	Average	2.80	2.80	2.60	2.80	2.60	2.80	2.60	2.60	2.60	2.60	2.40	2.40
	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	TYBSc		Program Outcomes									PSOs		
Subject Code	36149		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	Botany Practical on BO365 & 366		2	1	2	3	3	3	3	2	2	2	2	2
Semester No	VI		2	3	2	1	2	2	2	2	2	2	2	3
Teacher Name	Sudhir Bale		3	2	2	2	2	3	3	2	3	2	3	3
Course Outcomes			3	3	3	3	2	2	2	3	2	3	3	2
CO1	Ability to perform basic PTC technique		3	3	3	3	3	3	3	3	3	3	3	3
CO2	Ability to handle different instruments like micropipette, incubator, shaker, electrophoresis, microcentrifuge etc		2.60	2.40	2.40	2.40	2.40	2.60	2.60	2.40	2.40	2.40	2.60	2.60
CO3	Demonstration of fermentation, wine production													
CO4	Problems based on genetic engineering													
CO5	Demonstration of Hybridization techniques, chemical mutagenesis, pollen viability etc.													

Class	T.Y.B.Sc.	Course Outcomes	Program Outcomes									PSOs		
Subject Code	36144		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2	PSO3
Subject Name	Evolution and Population Genetics	CO1	3	3	3	3	3	3	3	3	3	3	2	2
Semester No	VI	CO2	1	1	2	1	3	1	1	3	1	2	2	3
Teacher Name	Abhijit Kulkarni	CO3	2	2	2	2	2	2	2	2	2	2	2	2
Course Outcomes		CO4	3	3	3	3	3	3	3	3	3	3	3	2
CO1	Students will learn the concept of Evolution and origin of Earth	CO5	3	3	3	3	3	3	3	3	3	3	3	3
CO2	Stiudents will get the knowledge of Different theories of Organic Evolution	Average	2.40	2.40	2.60	2.40	2.80	2.40	2.40	2.80	2.40	2.60	2.40	2.40
CO3	Students will get aquinted with geological time scale and Evidences of Evolution													
CO4	Students will learn the concept of Population genetics , gene and Genotype frequencies													
CO5	Students will learn the Hardy=Weinberg Law of Equillibriunm of population and the factors affecting it													

CO-PO Mapping

			Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
		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	2.40	2.40	2.20	2.40	2.00	2.40	2.20	2.20	2.40
FY	FY	6	12143	2.60	2.00	2.20	2.20	2.20	2.00	2.40	2.40	2.60
		1	23141	3.00	3.00	3.00	3.00	3.00	2.40	2.00	2.40	2.20
		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	24241	3.00	3.00	3.00	3.00	3.00	2.40	2.00	2.40	1.60
		5	24142	2.60	2.40	2.40	2.40	2.60	2.40	2.80	2.60	2.40
SY	SY	6	24143	3.00	1.20	3.00	2.60	1.20	1.00	2.60	1.00	2.40
		1	35141	2.00	2.20	2.60	2.20	2.00	1.80	2.20	2.20	2.80
		2	35142	2.40	2.20	2.20	2.20	2.20	2.60	2.40	2.20	2.00
		3	35143	2.20	2.20	2.60	2.40	2.20	2.60	2.00	2.00	2.20
		4	35144	2.20	2.20	2.60	2.40	2.20	2.60	2.00	2.00	2.20
		5	35145	2.40	2.40	2.20	2.40	2.00	2.40	2.20	2.20	2.40
		6	35146	3.00	3.00	3.00	3.00	3.00	3.00	2.80	2.80	2.80
		7	351410	2.40	2.40	2.40	2.20	2.60	2.00	2.40	2.00	1.80
		8	351411	2.20	2.20	2.40	2.40	2.80	2.40	2.40	2.00	2.20
		9	35147	2.20	2.40	2.20	2.40	2.60	2.40	2.40	2.00	2.20
		10	35148	3.00	3.00	3.00	2.60	3.00	3.00	2.60	2.80	2.80
		11	35149	2.60	2.60	2.80	2.60	2.40	2.60	2.40	2.60	2.80
		12	36141	1.60	1.80	2.00	1.60	2.00	1.60	1.60	1.80	1.60
		13	36142	1.60	1.80	2.00	1.60	2.00	1.60	1.60	1.80	1.60
		14	36143	2.00	2.00	2.00	2.00	2.00	2.00	2.20	2.00	2.20
		15	36145	2.20	2.20	2.40	2.20	2.40	2.40	2.40	2.40	2.20
		16	35146	3.00	3.00	3.00	3.00	3.00	2.80	2.80	3.00	2.80
		17	361410	2.60	1.60	1.80	2.40	2.20	2.80	2.20	2.40	2.20
		18	361411	2.20	2.60	2.00	2.00	2.40	2.60	2.40	2.40	2.40
		19	36147	2.80	2.80	2.60	2.80	2.60	2.80	2.60	2.60	2.60
		20	36148	2.80	2.80	2.60	2.80	2.60	2.80	2.60	2.60	2.60
		21	36149	2.60	2.40	2.40	2.40	2.40	2.60	2.60	2.40	2.40
TY	TY	22	36144	2.40	2.40	2.60	2.40	2.80	2.40	2.40	2.80	2.40

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
2.016	2.016	1.848	1.68	1.68	1.848	1.68	1.848	1.848
0.736	0.736	0.674667	0.736	0.613333	0.736	0.674667	0.674667	0.736
1.768	1.36	1.496	1.496	1.496	1.36	1.632	1.632	1.768
3	3	3	3	3	2.4	2	2.4	2.2
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
1.56	1.56	1.56	1.56	1.56	1.248	1.04	1.248	0.832
0.797333	0.736	0.736	0.736	0.797333	0.736	0.858667	0.797333	0.736
2.68	1.072	2.68	2.322666667	1.072	0.893333	2.322667	0.893333	2.144
1.36	1.496	1.768	1.496	1.36	1.224	1.496	1.496	1.904
1.632	1.496	1.496	1.496	1.496	1.768	1.632	1.496	1.36
1.496	1.496	1.768	1.632	1.496	1.768	1.36	1.36	1.496
1.848	1.848	2.184	2.016	1.848	2.184	1.68	1.68	1.848
2.4	2.4	2.2	2.4	2	2.4	2.2	2.2	2.4
3	3	3	3	3	3	2.8	2.8	2.8
2.4	2.4	2.4	2.2	2.6	2	2.4	2	1.8
2.2	2.2	2.4	2.4	2.8	2.4	2.4	2	2.2
2.2	2.4	2.2	2.4	2.6	2.4	2.4	2	2.2
2.52	2.52	2.52	2.184	2.52	2.52	2.184	2.352	2.352
2.6	2.6	2.8	2.6	2.4	2.6	2.4	2.6	2.8
0.832	0.936	1.04	0.832	1.04	0.832	0.832	0.936	0.832
0.832	0.936	1.04	0.832	1.04	0.832	0.832	0.936	0.832
1.04	1.04	1.04	1.04	1.04	1.04	1.144	1.04	1.144
0.909333	0.909333	0.992	0.909333333	0.992	0.992	0.992	0.992	0.909333
1.56	1.56	1.56	1.56	1.56	1.456	1.456	1.56	1.456
1.768	1.088	1.224	1.632	1.496	1.904	1.496	1.632	1.496
1.144	1.352	1.04	1.04	1.248	1.352	1.248	1.248	1.248
2.8	2.8	2.6	2.8	2.6	2.8	2.6	2.6	2.6
2.8	2.8	2.6	2.8	2.6	2.8	2.6	2.6	2.6
2.6	2.4	2.4	2.4	2.4	2.6	2.6	2.4	2.4
2.4	2.4	2.6	2.4	2.8	2.4	2.4	2.8	2.4

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
84	84	84	84	84	84	84	84	84
30.66667	30.66667	30.66667	30.66667	30.66667	30.66667	30.66667	30.66667	30.66667
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
52	52	52	52	52	52	52	52	52
30.66667	30.66667	30.66667	30.66667	30.66667	30.66667	30.66667	30.66667	30.66667
89.33333	89.33333	89.33333	89.33333	89.33333	89.33333	89.33333	89.33333	89.33333
68	68	68	68	68	68	68	68	68
68	68	68	68	68	68	68	68	68
68	68	68	68	68	68	68	68	68
84	84	84	84	84	84	84	84	84
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
84	84	84	84	84	84	84	84	84
100	100	100	100	100	100	100	100	100
52	52	52	52	52	52	52	52	52
52	52	52	52	52	52	52	52	52
52	52	52	52	52	52	52	52	52
41.33333	41.33333	41.33333	41.33333	41.33333	41.33333	41.33333	41.33333	41.33333
52	52	52	52	52	52	52	52	52
68	68	68	68	68	68	68	68	68
52	52	52	52	52	52	52	52	52
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

		Course	PSO1	PSO2	PSO3
FY	1	11141	2.00	2.00	1.80
	2	11142	2.20	2.40	2.25
	3	11143	2.00	2.00	2.00
	4	12141	2.00	2.00	2.20
	5	12142	1.80	2.40	2.20
	6	12143	2.80	2.60	2.60
SY	1	23141	3.00	3.00	2.40
	2	23142	2.40	2.40	2.40
	3	23143	3.00	3.00	3.00
	4	24241	2.40	2.40	2.40
	5	24142	2.80	2.60	2.40
	6	24143	2.60	2.00	2.80
TY	1	35141	2.40	2.60	2.00
	2	35142	1.80	2.20	1.80
	3	35143	2.60	2.60	2.20
	4	35144	2.60	2.60	2.20
	5	35145	2.40	2.00	2.20
	6	35146	2.80	2.80	2.80
	7	351410	2.40	2.20	2.60
	8	351411	2.40	2.60	2.40
	9	35147	2.40	2.40	2.40
	10	35148	2.60	2.80	2.80
	11	35149	2.40	2.40	2.60
	12	36141	1.80	1.80	1.80
	13	36142	1.80	1.80	1.80
	14	36143	2.20	2.20	2.20
	15	36145	2.40	2.00	2.20
	16	35146	2.80	2.80	2.80
	17	361410	2.00	2.80	2.60
	18	361411	2.60	2.00	2.00
	19	36147	2.60	2.40	2.40
	20	36148	2.60	2.40	2.40
	21	36149	2.40	2.60	2.60
	22	36144	2.60	2.40	2.40

CO-PSO ATTAINMENT

Course	PSO1	PSO2	PSO3
11141	2	2	1.8
11142	2.2	2.4	2.25
11143	1.786667	1.786667	1.786667
12141	1.68	1.68	1.848
12142	0.552	0.736	0.674667
12143	1.904	1.768	1.768
23141	3	3	2.4
23142	2.4	2.4	2.4
23143	3	3	3
24241	1.248	1.248	1.248
24142	0.858667	0.797333	0.736
24143	2.322667	1.786667	2.501333
35141	1.632	1.768	1.36
35142	1.224	1.496	1.224
35143	1.768	1.768	1.496
35144	2.184	2.184	1.848
35145	2.4	2	2.2
35146	2.8	2.8	2.8
351410	2.4	2.2	2.6
351411	2.4	2.6	2.4
35147	2.4	2.4	2.4
35148	2.184	2.352	2.352
35149	2.4	2.4	2.6
36141	0.936	0.936	0.936
36142	0.936	0.936	0.936
36143	1.144	1.144	1.144
36145	0.992	0.826667	0.909333
35146	1.456	1.456	1.456
361410	1.36	1.904	1.768
361411	1.352	1.04	1.04
36147	2.6	2.4	2.4
36148	2.6	2.4	2.4
36149	2.4	2.6	2.6
36144	2.6	2.4	2.4

Percentage CO-PSO ATTAINMENT

Course	PSO1	PSO2	PSO3
11141	100	100	100
11142	100	100	100
11143	89.33333	89.33333	89.33333
12141	84	84	84
12142	30.66667	30.66667	30.66667
12143	68	68	68
23141	100	100	100
23142	100	100	100
23143	100	100	100
24241	52	52	52
24142	30.66667	30.66667	30.66667
24143	89.33333	89.33333	89.33333
35141	68	68	68
35142	68	68	68
35143	68	68	68
35144	84	84	84
35145	100	100	100
35146	100	100	100
351410	100	100	100
351411	100	100	100
35147	100	100	100
35148	84	84	84
35149	100	100	100
36141	52	52	52
36142	52	52	52
36143	52	52	52
36145	41.33333	41.33333	41.33333
35146	52	52	52
361410	68	68	68
361411	52	52	52
36147	100	100	100
36148	100	100	100
36149	100	100	100
36144	100	100	100