GOVT.DEGREE COLLEGE(MEN), SRIKAKULAM

DEPARTMENT OF BOTANY

CO-PO'S MAPPING ATTAINMENTS

COURSE OUTCOMES ASSESSMENT

2019-22 BATCH

Aspects	Threshold X	Weightage	All student's average performance	Overall Course Direct Assessment
Internal Assessment	60%	25%	A	.25*A + .75*B=AF
Semester Exam	60%	75%	B	

INTERNAL ASSESSMENTS

Aspects	Weightage
MID EXAMS, MID-I & MID-2, ASSIGNMENTS, QUIZ, etc.. (As per the University guidelines)	25

COURSE OUT COMES ATTAINMENT

Assessment Methods	Attainment Levels	
Internal Assessment	Level-1	Less than 60% of students scoring more than 60% marks in MID
	Level-2	60% to 70% of students scoring more than 60% marks in MID
	Level-3	More than 70% of students scoring more than 60% marks in MID
Semester Exam	Level-1	Less than 50% of students passed in End Semester Examination (ESE)
	Level-2	50% to 60% of students passed in End Semester Examination (ESE)
	Level-3	More than 60% of students passed in ESE

ASSESSMENT TABLE
BOTANY SEM-I PAPER-I

PARTICULARS	INTERNAL ASSESSMENT (A)	SEMESTER EXAM (B)
Total Number of Students Appeared	84	84
Number of students Scoring above threshold(X)	76	45
Percentage	90.47%	53.57%
Attainment Level	3	2
Weightage	.25*3=.75	.75*2=1.5
Attainment factor (AF) (0.25*A+ 0.75*B)= (AF)	.75 + 1.5 = 2.25	

BOTANY SEM-I PAPER-I

SEMESTER-I										
B.Sc.	MICROBIAL DIVERSITY, ALGAE & FUNGI		PAPER CODE:							
Hrs/Week: 4 + 3	Hrs: 60		Credits: 5							
code	COURSE OUT COMES	BLOOM'S TAXONOMY	CORRELATING PROGRAM OUTCOMES							
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	Explain origin of life on the earth	U	3	3	2	-	1	3	1	2	1
CO2	Illustrate diversity among the Viruses & Prokaryotic organisms & their classification.	A	3	2	1	1	1	2	1	2	1
CO3	Classify Fungi, Lichens & Algae based on their Structure, Reproduction & Life cycles.	K	3	2	2	1	1	2	1	2	1
CO4	Analize & ascertain the Plant disease symptoms due to Viruses, Bacteria & Fungi.	A	3	2	2	1	1	3	1	2	1
CO5	Evaluate the ecological economic value of Microbes & Thallophytes.	U	3	3	2	1	1	3	1	2	1
CO AVERAGE			3	2.4	1.8	1	1	2.6	1	2	1

Overall Course attainment (Direct) : 2.25 out of 3

CO contribution to Programme Outcomes:

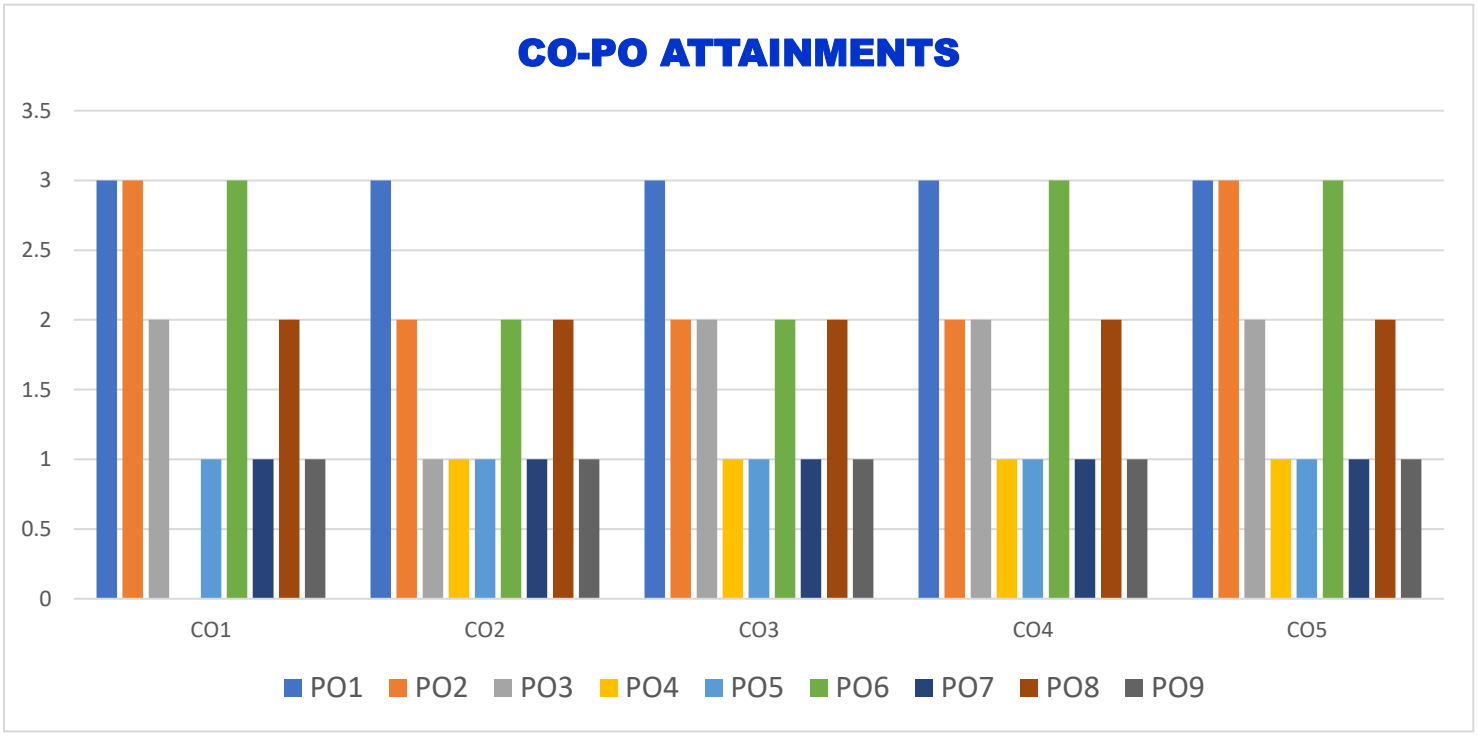
PO Attainment = (weighted average value of PO x AF) /3

Course Code	AF	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	2.25	3	2.4	1.8	1	1	2.6	1	2	1
CO contribution to PO		2.25	1.8	1.35	.75	.75	1.95	.75	1.5	.75

CORRECTIVE ACTIONS TO IMPROVE CO ATTAINMENTS

Overall CO attainment is achieved to the expected level. To improve term end examination attainment the following actions are to be carried out.

- Remedial classes/Additional Tutorial classes are conducted
- More problems related to the concepts are solved to make the students understand the application orientation of the subject.



ASSESSMENT TABLE

BOTANY SEM-II PAPER-II

PARTICULARS	INTERNAL ASSESSMENT (A)	SEMESTER EXAM (B)
Total Number of Students Appeared	82	82
Number of students Scoring above threshold(X)	73	47
Percentage	89.02%	57.31%
Attainment Level	3	3
Weightage	.25*3=.75	.75*3=2.25
Attainment factor (AF) (0.25*A+ 0.75*B)=(AF)	.75 + 2.25 = 3	

SEMESTER-II BOTANY PAPER-II										
B.Sc.	DIVERSITY OF ARCHEGONIATES & ANATOMY		PAPER CODE:							
Hrs/Week : 4 + 3	Hrs: 60		Credits: 5							
CODES	COURSE OUT COMES	BLOOM'S TAXONOMY	CORRELATING PROGRAM OUTCOMES							
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	Classify & compare Archegoniates based on their Morphology, Anatomy, Reproduction & Their life cycles.	U	3	3	2	3	2	3	1	2	1
CO2	Explain the process of Fossilization & compare the Characteristics of extinct plants	K	3	2	1	2	1	2	1	2	1
CO3	Justify evolutionary trends in Tracheophytes to adapt for land habit.	A	3	2	2	2	2	2	1	2	1
CO4	Evaluate the ecological, ethnic & economic value of different tracheophytes.	A	3	3	2	2	1	3	1	1	1
CO5	Understand on the organization of tissues & tissue systems in plants.	U	3	3	2	2	1	2	1	1	1
CO AVERAGE			3	2.6	1.8	2.2	1.4	2.4	1	1.6	1

Overall Course attainment (Direct) : 2.25 out of 3

CO contribution to Programme Outcomes:

PO Attainment = (weighted average value of PO x AF) /3

Course Code	AF	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	3	3	2.6	1.8	2.2	1.4	2.4	1	1.6	1
CO contribution to PO		3	2.6	1.8	2.2	1.4	2.4	1	1.6	1

CORRECTIVE ACTIONS TO IMPROVE CO ATTAINMENTS

Overall CO attainment is achieved to the expected level. To improve term end examination attainment the following actions are to be carried out.

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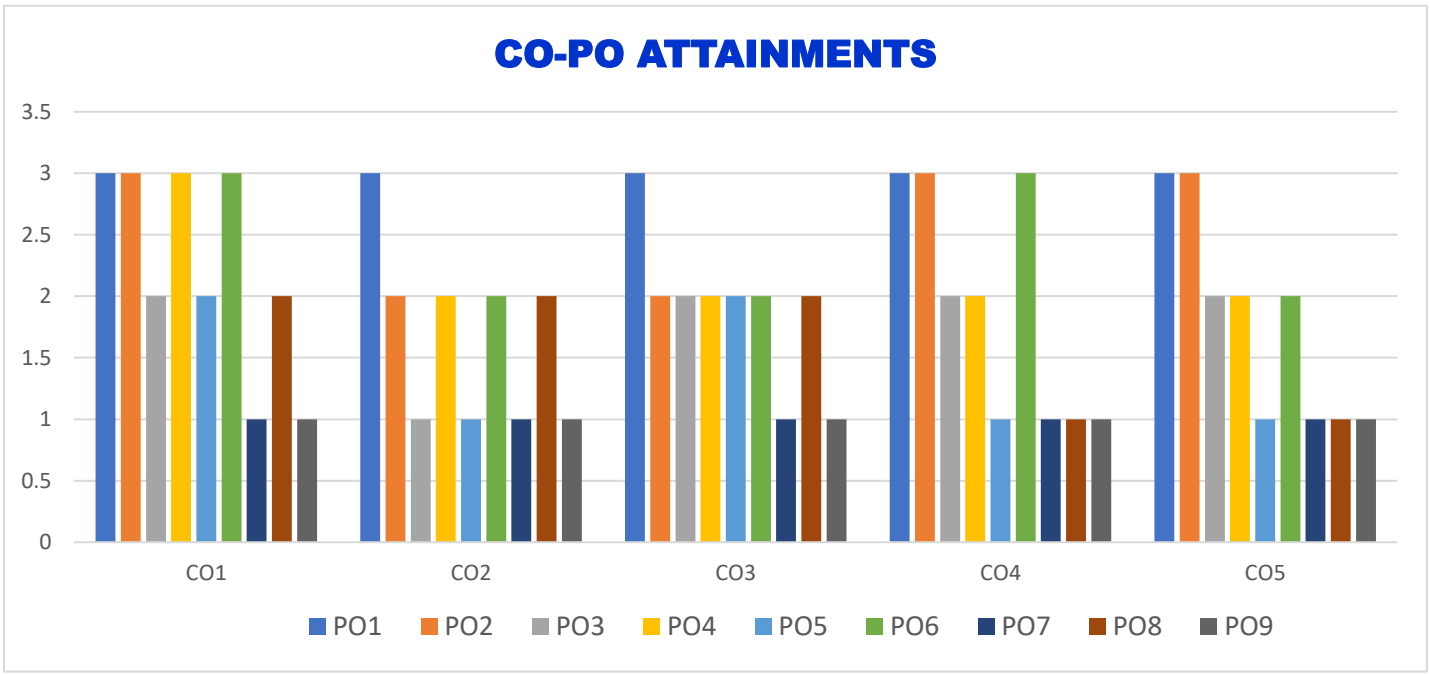


ASSESSMENT TABLE BOTANY SEM-III PAPER-III

PARTICULARS	INTERNAL ASSESSMENT (A)	SEMESTER EXAM (B)
Total Number of Students Appeared	78	78
Number of students Scoring above threshold(X)	70	51
Percentage	89.74%	65.38%
Attainment Level	3	3
Weightage	.25*3=.75	.75*3=2.25
Attainment factor (AF) (0.25*A+ 0.75*B)=(AF)	.75 + 2.25 = 3	

BOTANY Semester-III PAPER-III

SEMESTER-III										
B.Sc.		PLANT TAXONOMY & EMBRYOLOGY		PAPER CODE:						
Hrs/Week: 4 + 3		Hrs : 60		Credits: 5						
CODES	COURSE OUT COMES	BLOOM'S TAXONOMY	CORRELATING PROGRAM OUTCOMES							
			PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9
CO1	Critically understand various taxonomical aids for identification of Angiosperms.	K	3	3	3	2	-	3	1	2	2
CO2	Analize the morphology of the most common Angiosperms of their localities & recognize their families.	A	3	3	2	2	1	2	-	2	1
CO3	Discuss the basic concepts of morphology of given Angio spermic families.	K	3	3	3	1	1	3	-	2	2
CO4	Illustrate & interpret various aspects of embryology.	K	3	3	3	2	1	3	1	2	1
CO5	Understand the various modes of reproductions, developmental stages of embryos.	U	3	3	2	2	-	2	-	2	2
CO contribution to PO			3	3	2.6	1.8	1	2.6	1	2	1.6

ASSESSMENT TABLE
SEMESTER-III

Overall Course attainment (Direct) : 3 out of 3

CO contribution to Programme Outcomes:

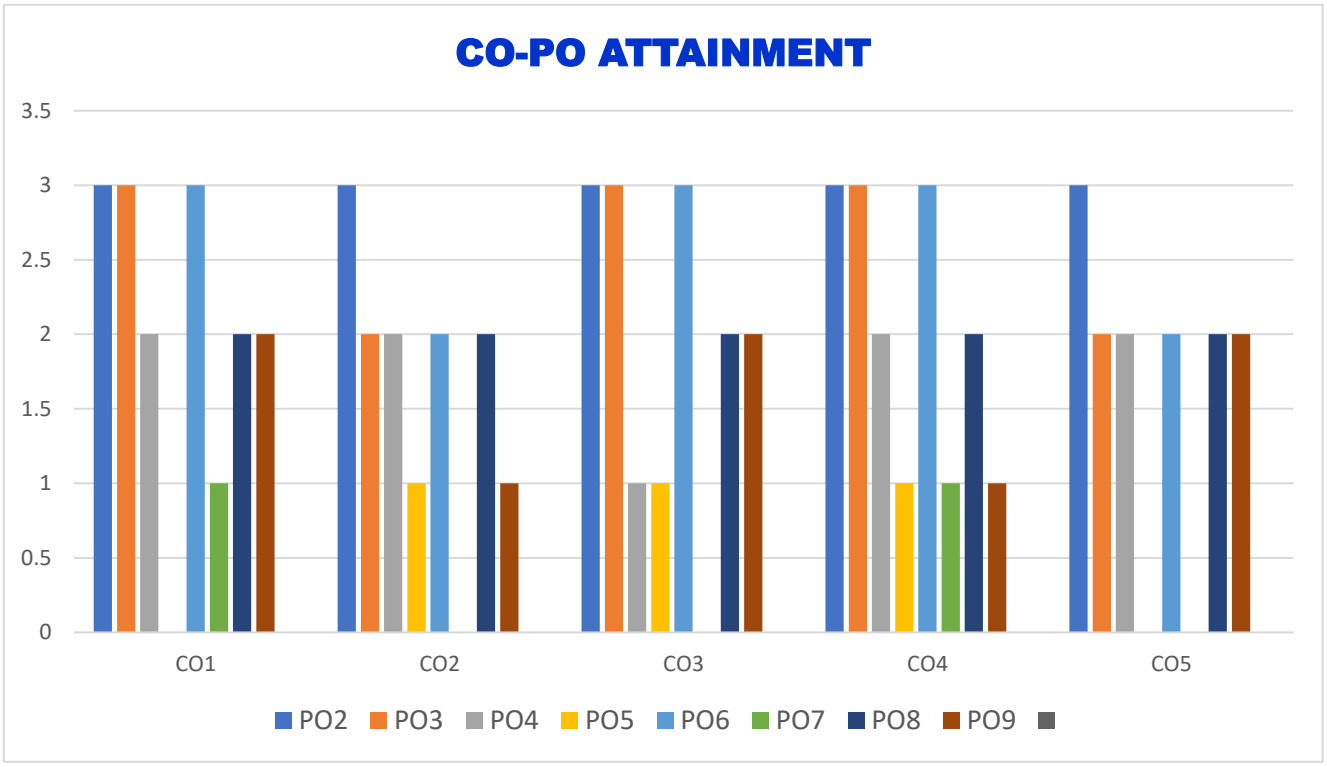
PO Attainment = (weighted average value of PO x AF) /3

Course Code	AF	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	3	3	3	2.6	1.8	1	2.6	1	2	1.6
CO contribution to PO		3	3	2.6	1.8	1	2.6	1	2	1.6

CORRECTIVE ACTIONS TO IMPROVE CO ATTAINMENTS

Overall CO attainment is achieved to the expected level. To improve term end examination attainment the following actions are to be carried out.

- **Remedial classes/Additional Tutorial classes are conducted**
- **More problems related to the concepts are solved to make the students understand the application orientation of the subject.**



ASSESSMENT TABLE
BOTANY SEM-IV PAPER-IV

PARTICULARS	INTERNAL ASSESSMENT (A)	SEMESTER EXAM (B)
Total Number of Students Appeared	78	78
Number of students Scoring above threshold(X)	72	52
Percentage	92.3%	66.66%
Attainment Level	3	3
Weightage	.25*3=.75	.75*3=2.25
Attainment factor (AF) (0.25*A+ 0.75*B)=(AF)	.75 + 2.25 = 3	

BOTANY SEMESTER-IV										
PAPER-IV										
B.Sc.	PLANT PHYSIOLOGY & METABOLISM		PAPER CODE:							
Hrs/Week :4 + 3	Hrs : 60		Credits : 5							
CODES	COURSE OUT COMES	BLOOM'S TAXONOMY	CORRELATING PROGRAM OUTCOMES							
			PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9
CO1	Comprehend the importance of water in plant life & mechanism for transport of water, solutes in plants & explain the physiology of plants under stress conditions.	A	3	3	2	1	1	3	1	2	1
CO2	Explain the role of minerals in plant nutrition and their deficiency symptoms.	U	3	3	1	1	1	2	1	2	1
CO3	Interpret the role of enzymes in plant metabolism.	A	3	3	1	1	1	3	1	2	1
CO4	Understand the light reactions & carbon assimilation, Respiration & Nitrogen & Lipid metabolism.	U	3	3	2	1	1	2	1	2	1
CO5	Understand the role of Plant growth regulators on growth & development in plants.	K	3	3	2	1	1	2	1	2	1
CO contribution to PO			3	3	1.6	1	1	2.4	1	2	1

Overall Course attainment (Direct) : 3 out of 3

CO contribution to Programme Outcomes:

PO Attainment = (weighted average value of PO x AF) /3

Course Code	AF	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	3	3	3	1.6	1	1	2.4	.8	2	1
CO contribution to PO		3	3	1.6	1	1	2.4	.8	2	1

CORRECTIVE ACTIONS TO IMPROVE CO ATTAINMENTS

Overall CO attainment is achieved to the expected level. To improve term end examination attainment the following actions are to be carried out.

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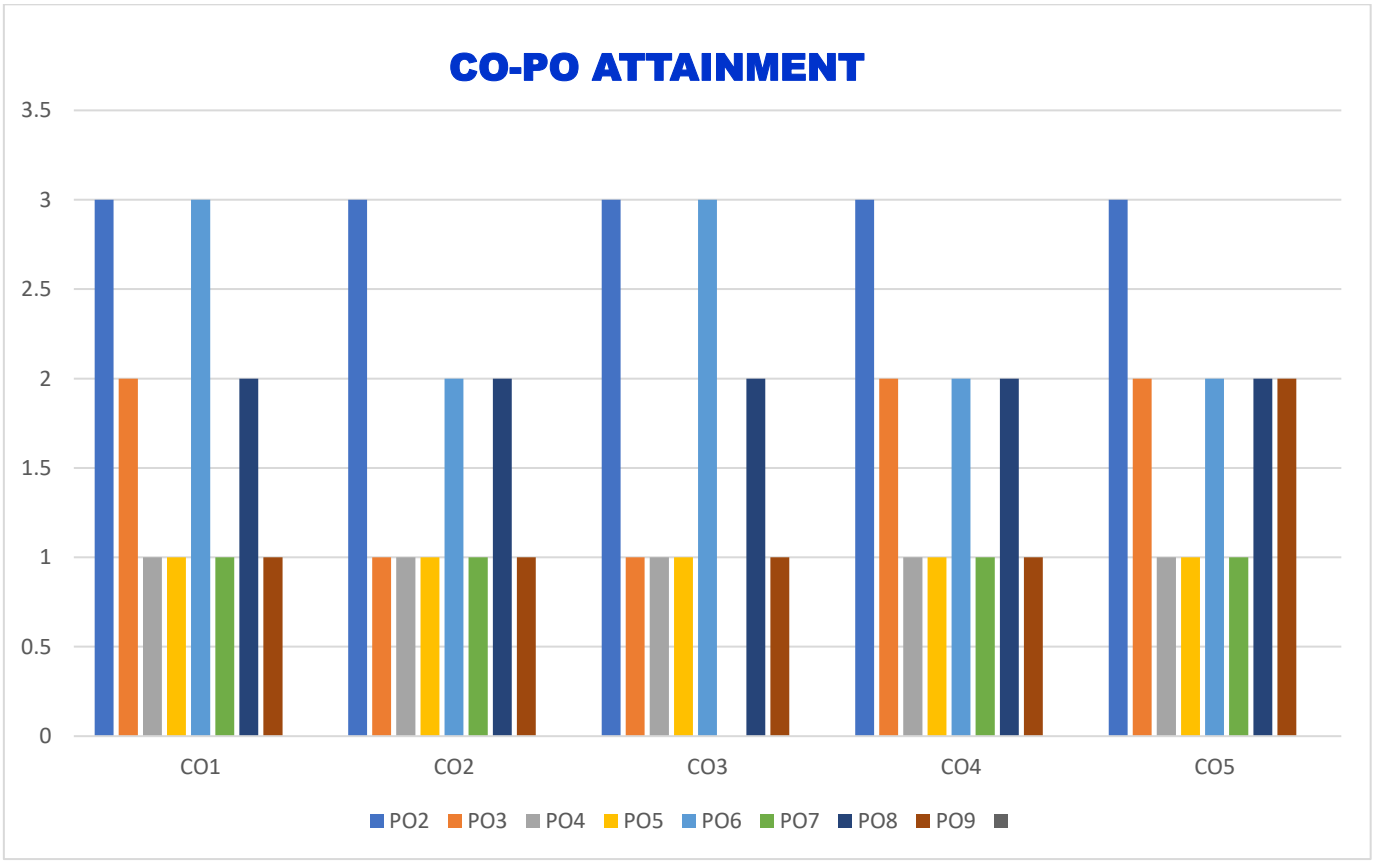
- **More problems related to the concepts are solved to make the students understand the application orientation of the subject.**



ASSESSMENT TABLE

SEMESTER-V BOTANY PAPER - V

PARTICULARS	INTERNAL ASSESSMENT (A)	SEMESTER EXAM (B)
Total Number of Students Appeared	76	76
Number of students Scoring above threshold(X)	70	52
Percentage	92.1%	68.42%
Attainment Level	3	3
Weightage	.25*3=.75	.75*3=2.25
Attainment factor (AF) (0.25*A+ 0.75*B)= (AF)	.75 + 2.25 = 3	

BOTANY SEMESTER-V

PAPER-V

B.Sc.	CELL BIOLOGY, GENETICS& PLANT BREEDING	PAPER CODE:
Hrs/Week : 4 + 3	Hrs : 60	Credits : 5

CODES	COURSE OUT COMES	BLOOM'S TAXONOMY	CORRELATING PROGRAM OUTCOMES								
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	Distinguish prokaryotic & Eukaryotic cells & design the model of a cell & its components.	U	3	3	2	1	2	3	1	2	2
CO2	Explain the organization of a eukaryotic chromosomes & the structure of genetic material.	K	3	2	2		2	2	1	1	3
CO3	Discuss the basics of Mendelian genetics & role extra chromosomal genetic material.	A	3	2	1	1	2	3	1	2	2
CO4	Evaluate structure ,function & regulation of genes.	A	3	3	1	1	2	2	1	1	2
CO5	Understand the application of principles in Plant breeding & Process of Selection & Hybridization for crop improvement	U	3	3	2		2	2	1	2	3
CO contribution to PO			3	2.6	1.6	1	2	2.4	1	1.6	2.4

Overall Course attainment (Direct): 3 out of 3

CO contribution to Programme Outcomes:

PO Attainment = (weighted average value of PO x AF) /3

Course Code	AF	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	3	3	2.6	1.6	1	2	2.4	1	1.6	2.4
CO contribution to PO		3	2.6	1.6	1	2	2.4	1	1.6	2.4

CORRECTIVE ACTIONS TO IMPROVE CO ATTAINMENTS

Overall CO attainment is achieved to the expected level. To improve term end examination attainment the following actions are to be carried out.

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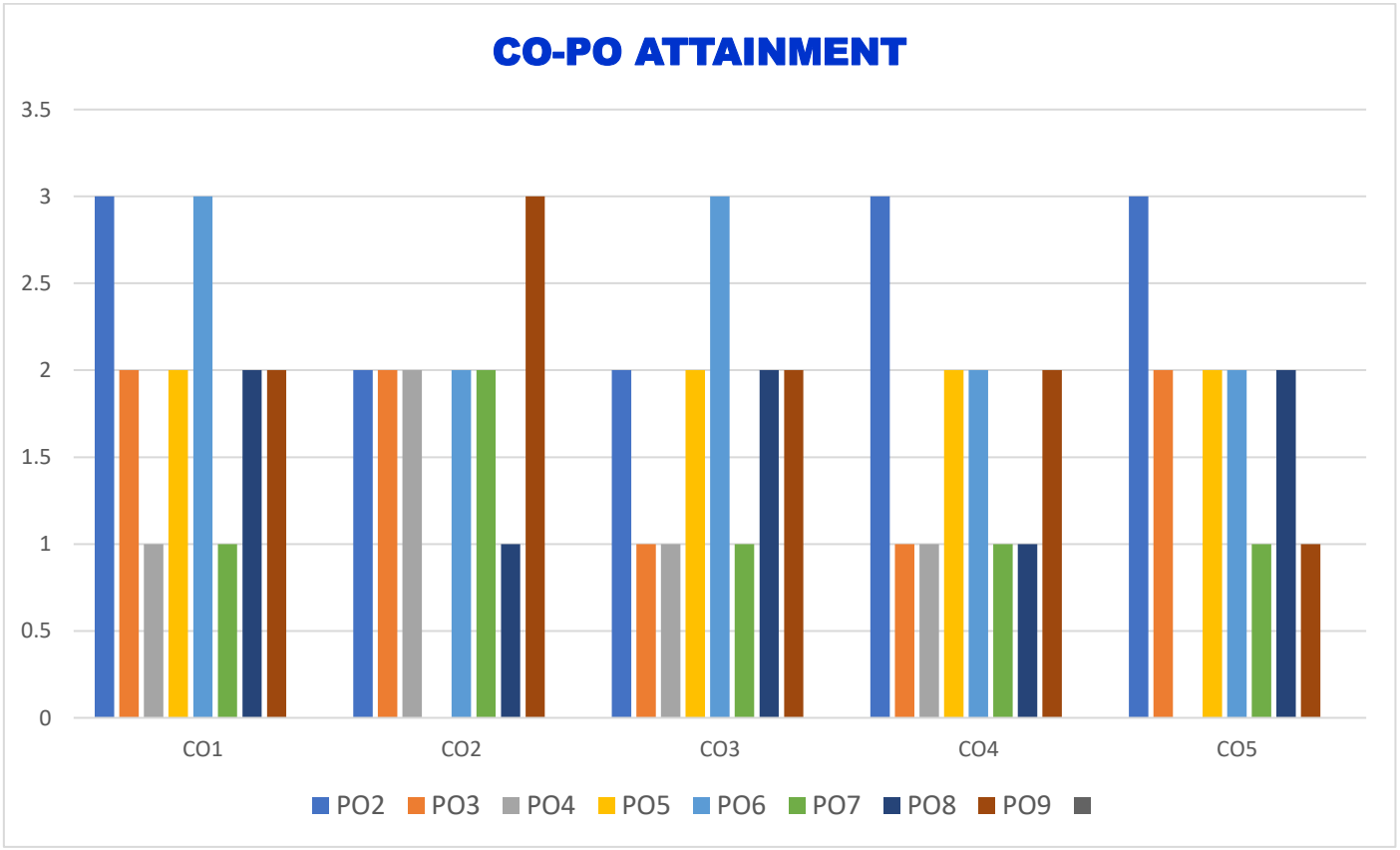

ASSESSMENT TABLE

BOTANY SEMESTER-V PAPER-VI

PARTICULARS	INTERNAL ASSESSMENT (A)	SEMESTER EXAM (B)
Total Number of Students Appeared	76	76
Number of students Scoring above threshold(X)	71	55
Percentage	93.42%	72.36%
Attainment Level	3	3
Weightage	.25*3=.75	.75*3=2.25
Attainment factor (AF) (0.25*A+ 0.75*B)= (AF)	.75 + 2.25 = 3	

SEMESTER-V

BOTANY PAPER-VI

B.Sc.	PLANT ECOLOGY & PHYTOGEOGRAPHY	PAPER CODE:
Hrs/Week: 4 + 3	Hrs: 60	Credits: 5

CODES	COURSE OUT COMES	BLOOM'S TAXONOMY	CORRELATING PROGRAM OUTCOMES								
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	Discuss the basic concepts of Plant ecology.	K	3	3	2	2	1	3	1	1	2
CO2	Evaluate the effects of environmental & Biotic factors on plant communities.	U	3	2	2	2	1	2	1	2	3
CO3	Appraise various Qualitative & Quantitative parameters to study the population & community ecology.	A	3	3	2	2	1	3	1	1	3
CO4	Locate different Phytogeographical regions of the world & India & can Analise their floristic wealth.	U	3	2	2	2	1	2	1	2	2
CO contribution to PO			3	2.5	2	2	1	2.5	1	1.5	2.5

Overall Course attainment (Direct): 3 out of 3

CO contribution to Programme Outcomes:

PO Attainment = (weighted average value of PO x AF) /3

Course Code	AF	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	3	3	2.5	2	2	1	2.5	1	1.5	2.5
CO contribution to PO		3	2.5	2	2	1	2.5	1	1.5	2.5

CORRECTIVE ACTIONS TO IMPROVE CO ATTAINMENTS

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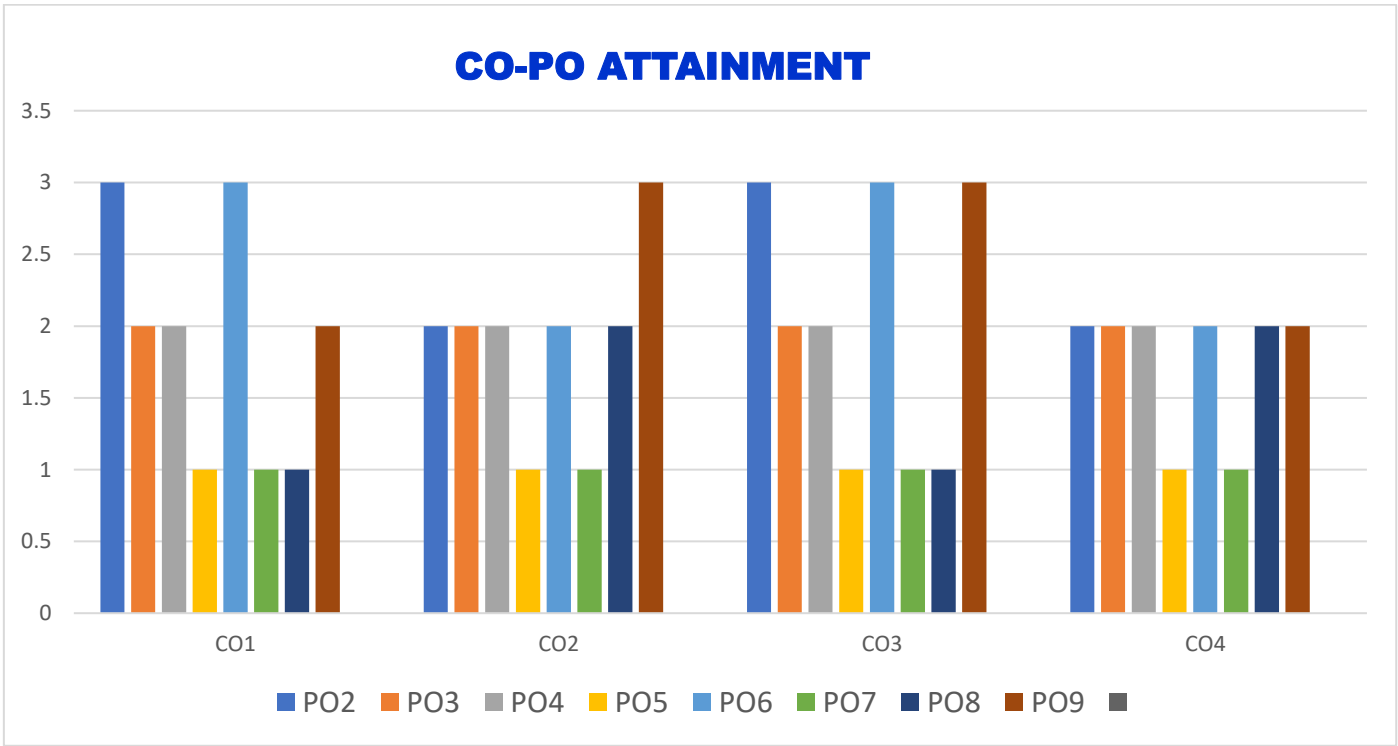

ASSESSMENT TABLE

BOTANY SEMESTER-VI PAPER-VII

PARTICULARS	INTERNAL ASSESSMENT (A)	SEMESTER EXAM (B)
Total Number of Students Appeared	76	76
Number of students Scoring above threshold(X)	72	50
Percentage	94.73%	65.78%
Attainment Level	3	3
Weightage	.25*3=.75	.75*3=2.25
Attainment factor (AF) (0.25*A+ 0.75*B)= (AF)	.75 + 2.25 = 3	

BOTANY SEMESTER-VI PAPER-VII										
PLANT TISSUE CULTURE & IT'S BIOTECHNOLOGICAL APPLICATIONS										
B.Sc.		PAPER-VII	PAPER CODE:							
Hrs/Week: 3 + 3		Hrs: 60	Credits: 5							
CODES	COURSE OUT COMES	BLOOM'S TAXONOMY	CORRELATING PROGRAM OUTCOMES							
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	Comprehend the basic knowledge & applications of plant tissue culture	K	3	2	3	1	2	2	2	1	1
CO2	Identify the various facilities required to set up a plant tissue culture lab	U	3	2	2	1	1	2	1	1	1
CO3	Acquire a critical knowledge on sterilization techniques related to plant tissue culture.	K	3	2	2	2	1	2	1	1	1
CO4	Demonstrate skills of callus culture through hands on experience	U	3	3	3	2	2	1	1	1	1
CO5	Acquire the knowledge about process of r-DNA technology.	K	3	3	3	1	1	1	2	1	1
CO6	Know about the applications of biotechnology &	A	3	3	3	1	1	2	1	1	1
CO contribution to PO			3	2.5	2.67	1.33	1.33	1.67	1.33	1	1

Overall Course attainment (Direct): 3 out of 3

CO contribution to Programme Outcomes:

PO Attainment = (weighted average value of PO x AF) /3

Course Code	AF	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	3	3	2.5	2.67	1.33	1.33	1.67	1.33	1	1
CO contribution to PO		3	2.5	2.67	1.33	1.33	1.67	1.33	1	1

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Overall CO attainment is achieved to the expected level. To improve term end examination attainment the following actions are to be carried out.

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