



SHRI SHIVAJI EDUCATION SOCIETY, AMRAVATI'S  
**SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI**



NAAC Accredited by Grade A with CGPA 3.13 (3rd Cycle)  
UGC awarded status of College with Potential for Excellence (2nd Phase)  
ISO 9000:2015 Certified College

Identified by DST , Govt. Of India for FIST & Sant Gadge Baba Amravati University as Lead College



**4<sup>TH</sup> Cycle**

**Assessment & Accreditation by NAAC**

**Criterion-II**

**TEACHING-LEARNING AND EVALUATION**

**QIM 2.6.2**

Attainment of programme outcomes and course outcomes are evaluated by the institution

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Accredited by NAAC with 'A' grade with a CGPA of 3.13  
UGC Awarded College with Potential for Excellence ISO 9000:2015 certified College  
Identified by DST for FIST and SGB Amravati University as Lead College

## Shri Shivaji Science College

Shivaji Nagar, Morshi Road, Amravati - 444 603 M.S.

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Ref. No.: SSSC/6471/IQAC/2021

Date: Nov. 22<sup>nd</sup>, 2021

### Declaration

The information, reports, true copies of the supporting documents, numerical data, etc.  
furnished in this file is verified by IQAC and found correct.

Hence this certificate.

H. S. Lunge  
IQAC Coordinator  
Shri Shivaji Science College  
Amravati



G. V. Korpé  
Chairman IQAC and Principal  
Shri Shivaji Science College,  
Amravati

## Evaluation Process to measure Attainment of COs, PSOs and POs

### Evaluation of Attainment of Course Outcomes (COs)

Overall attainment of the COs is evaluated by the respective department. The method of evaluation of the COs is as follows.

1. Overall attainment of COs is measured directly in terms of performance of students in semester end examination conducted by the university.
2. After the declaration of university examination results, every department prepares programme wise and course wise result analysis report.
3. As per the pre defined benchmarks, departments evaluate overall attainment level for all COs for each course. For example;
  - a. if, for a given course, 50% of enrolled students have scored  $\geq 50\%$  marks in final examination then overall attainment level of COs is said to be LEVEL-1 (lowest level rated with weight 1).
  - b. if, for a given course, 60% of enrolled students have scored  $\geq 50\%$  marks in final examination then overall attainment level of COs is said to be LEVEL-2 (with weight 2)
  - c. if, for a given course, 70% of enrolled students have scored  $\geq 50\%$  marks in final examination then overall attainment level of COs is said to be LEVEL-3 (highest level with weight 3).

### Evaluation of Attainment of Programme Specific Outcomes (PSOs)

Overall attainment of PSOs of a given programme is evaluated on the basis of attainment of the respective PSOs at department level. The departments evaluate attainment of PSOs on the basis of "Level of Attainment" of all corresponding COs and the overall performance of students in class tests, seminars, quizzes, home assignments, project assignments, semester end common test and students' feedback on teaching, learning & evaluation.

### Evaluation of Programme Outcomes (POs) Attainment

The POs are the qualities that a graduates must have acquired at the time of completion of their programme. Thus at the end of each program, evaluation of attainment of POs is done from the COs and PSOs attainment of all subjects. Other key parameters considered for evaluation of attainment of POs are percentage of students due for degree, percentage of merits in university merit list, other achievements of the students and students feedback.

### Review on attainment of COs, PSOs and POs

Quantitative reports on overall attainment of COs and PSOs of all programmes are collected by IQAC so as to prepare attainment of corresponding POs.

Result analysis of semester end university examinations is discussed in Council of Heads, Staff Council and College Development Committee meetings. According to suggestions of authorities of the said committees IQAC initiated the action for further improvement.



**2020-21****Department of Biotechnology**

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF Biotechnology

ACADEMIC SESSION 2020-21

**EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)**

1. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
2. Direct assessment includes semester end examination conducted by the university.
3. Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
4. The degree of attainment of COs/PSOs are expressed in terms o level of attainment

- **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

- **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination

**Programme Name - B.Sc.**

**Course Name : B.Sc. SEM I Biotechnology**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER-I								
GROUP	APP.	PASS	%	A	B	C	D	E
BTB	18	18	100	18	-	-	-	-
BTZ	17	17	100	17	-	-	-	-
TOTAL	35	35	100	35	-	-	-	-

$$A+B+C =$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 35 \times 100 / 35 = 100\%$$

**Course Name : B.Sc. SEM II Biotechnology**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -II								
GROUP	APP.	PASS	%	A	B	C	D	E
BTB	18	15	83	14	1	-	-	-
BTZ	18	16	88	14	2	-	-	-
TOTAL	36	31	85.5	28	3	-	-	-

$$A+B+C = 28+3+0 = 31$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 31 \times 100 / 36 = 86\%$$

**Course Name : B.Sc. SEM III Biotechnology**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -III								
GROUP	APP.	PASS	%	A	B	C	D	E
BTB	24	23	95	23	-	-	-	-
BTZ	24	23	95	23	-	-	-	-
TOTAL	48	46	95	46	-	-	-	-

$$A+B+C = 46+0+0 = 46$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 46 \times 100 / 48 = 95.8 \%$$

**Course Name : B.Sc. SEM IV Biotechnology**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -IV								
GROUP	APP.	PASS	%	A	B	C	D	E
BTB	23	23	100	23	-	-	-	-
BTZ	22	22	100	22	-	-	-	-
TOTAL	45	45	100	45	-	-	-	-

$$A+B+C = 45+0+0=45$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 45 \times 100 / 45 = 100\%$$

**Course Name : B.Sc. SEM V Biotechnology**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -V								
GROUP	APP.	PASS	%	A	B	C	D	E
BTB	24	24	100	17	6	1	-	-
BTZ	22	22	100	19	3	-	-	-
TOTAL	46	46	100	36	9	1	-	-

$$A+B+C = 36+9+1 = 46$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is=

$$46 \times 100 / 46 = 100 \%$$



Course Name : B.Sc. SEM VI Biotechnology

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -VI								
GROUP	APP.	PASS	%	A	B	C	D	E
BTB	25	25	100	21	4	--	-	-
BTZ	22	22	100	17	5	-	-	-
TOTAL	47	47	100	38	9	-	-	-

$$A+B+C = 38+9+0=47$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 47 \times 100 / 47 = 100\%$$

**Attainment table for the Academic session 2020-21**

Programme	Course	% of enrolled students those have scored $\geq 50\%$ marks in final examination ( $A+B+C$ ) $\times 100$ /(appeared students)	COs Attainment Level as per benchmark
B.Sc. (U.G.)	B.Sc. SEM I BTC	100	LEVEL-3
	B.Sc. SEM II BTC	86	LEVEL-3
	B.Sc. SEM III BTC	95.8	LEVEL-3
	B.Sc. SEM IV BTC	100	LEVEL-3
	B.Sc. SEM V BTC	100	LEVEL-3
	B.Sc. SEM VI BTC	100	LEVEL-3

*Chubesh*  
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## Department of Botany

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF BOTANY

ACADEMIC SESSION 2020-21

### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

1. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
2. Direct assessment includes semester end examination conducted by the university.
3. Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and student's feedback.
4. The degree of attainment of COs/PSOs are expressed in terms of level of attainment

• **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

• **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination

  
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### Evaluation of attainment of COs for 2020-21

Programme Name - B.Sc.

Course Name : B.Sc. SEM I BOT

#### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER I (W-20)								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	90	89	98.89	98.88	1.12	00	00	2.25
BTB	22	18	81.82	100	00	00	00	00
CEB	15	15	100	93.33	6.67	00	00	00
MBB	20	20	100	95	5	00	00	00
TOTAL	147	142	96.60	97.89	2.11	00	00	1.41

$$A+B+C = 4+16+19 = 39$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is  
 $= 100 \times 100 / 147 = 68\%$

SEMESTER II (S-20)								
GROUP	APP.	PASS	%	A %	B%	C%	D%	E%
BIO+MEB	169	165	97.63	33.94	52.12	10.30	3.64	2.42
TOTAL								

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is=57 %

SEMESTER III (W-20)								
GROUP	APP.	PASS	%	A %	B%	C%	D%	E%
BIO	93	91	97.84	97.84	00	00	00	-
MEB	72	71	98.61	98.71	00	00	1.28	
TOTAL	165		98.22	98.27	00	00	1.28	

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is= 60%

SEMESTER IV (S-20)								
GROUP	APP.	PASS	%	A %	B%	C%	D%	E%
BIO	88	88	98.63	100	00	00	00	-
MEB	58	56	96.55	96.3	00	00	3.33	
TOTAL	146		97.59	98.35	00	00	3.33	

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is= 68%

SEMESTER V (W-20)								
GROUP	APP.	PASS	%	A %	B%	C%	D%	E%
BIO + MEB	171	171	100	100	00	00	00	-
TOTAL								

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is=100%


SEMESTER VI (S-20)								
GROUP	APP.	PASS	%	A %	B%	C%	D%	E%
BIO+MEB	168	168	100	100	00	00	00	-
TOTAL								

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is=100 %



**Attainment table for the Academic session 2020-21**

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination (A+B+C)X100/(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I BOT	68	LEVEL-3
	B.Sc. SEM II BOT	57	LEVEL-2
	B.Sc. SEM III BOT	60	LEVEL-3
	B.Sc. SEM IV BOT	68	LEVEL-3
	B.Sc. SEM V BOT	100	LEVEL-3
	B.Sc. SEM VI BOT	100	LEVEL-3
M.Sc. Botany	M.Sc. Botany Sem I- Cell biology, cytology and genetics	100	LEVEL-3
	M.Sc. Botany Sem I- Resource utilization and conservation	100	LEVEL-3
	M.Sc. Botany Sem I- Biology and diversity of algae and bryophytes	100	LEVEL-3
	M.Sc. Botany Sem I- Plant development and reproduction	100	LEVEL-3
	M.Sc. Botany Sem II- Cytogenetics and molecular biology	100	LEVEL-3
	M.Sc. Botany Sem II- Biology and diversity of microbes and fungi	100	LEVEL-3
	M.Sc. Botany Sem II- Plant Physiology	100	LEVEL-3
	M.Sc. Botany Sem II- Plant Metabolism	100	LEVEL-3
	M.Sc. Botany Sem III- Biology and diversity of Pteridophytes and Gymnosperms	95.8	LEVEL-3
	M.Sc. Botany Sem III- Taxonomy of Angiosperms	95.8	LEVEL-3
	M.Sc. Botany Sem III- Applied mycology - I	95.8	LEVEL-3
	M.Sc. Botany Sem III- Plant Pathology – II	95.8	LEVEL-3
	M.Sc. Botany Sem IV- Plant Ecology	100	LEVEL-3
	M.Sc. Botany Sem IV- Environmental Ecology	100	LEVEL-3
	M.Sc. Botany Sem IV- Plant Biotechnology	100	LEVEL-3
	M.Sc. Botany Sem IV- Genetic Engineering	100	LEVEL-3

  
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### Evaluation of attainment of COs for 2020-21

Programme Name - M.Sc.

Course Name :( Bioinformatics)

#### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -1-4 (2020-21)								
GROUP	APP.	PASS	%	A	B	C	D	E
M.Sc. I- Sem I	28	28	100	28	0	0	0	
M.Sc. I- Sem III	22	22	100	22	0	0		
M.Sc. I- Sem II	28	28	100	28	0	0		
M.Sc. I- Sem IV	22	22	100	22	0	0	0	
Total	100	100		100	0	0	0	

$$A+B+C = 100+00+00 = 100$$


Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 100 \times 100 / 100 = 100\%$$

#### Attainment table for the Academic session 2020-21

Programme	Course	% of enrolled students those have scored $\geq 50\%$ marks in final examination $(A+B+C) \times 100 / (\text{appeared students})$	COs Attainment Level as per benchmark
M.Sc. Bioinformatics	M.Sc. Bioinformatics- Sem I- Mathematics and Biostatistics	100	LEVEL-3
	M.Sc. Bioinformatics- Sem I-Cell and Molecular Biology	100	LEVEL-3
	M.Sc. Bioinformatics- Sem I-Computer for Biologists	100	LEVEL-3
	M.Sc. Bioinformatics- Sem I-Introduction to Bioinformatics	100	LEVEL-3
	M.Sc. Bioinformatics- Sem II-Biochemistry and Biophysics	100	LEVEL-3
	M.Sc. Bioinformatics- Sem II-Genomics	100	LEVEL-3
	M.Sc. Bioinformatics- Sem II-Biological Database Management system	100	LEVEL-3
	M.Sc. Bioinformatics- Sem II-Techniques in Bioinformatics	100	LEVEL-3
	M.Sc. Bioinformatics- Sem III- System Biology	100	LEVEL-3
	M.Sc. Bioinformatics- Sem III-Proteomics	100	LEVEL-3
	M.Sc. Bioinformatics- Sem III-Bio Programming	100	LEVEL-3
	M.Sc. Bioinformatics- Sem III-Parasite Informatics	100	LEVEL-3
	M.Sc. Bioinformatics- Sem IV-Molecular Modeling and drug Design	100	LEVEL-3

	M.Sc. Bioinformatics- <b>Sem IV-Chemo - Informatics</b>	100	LEVEL-3
	M.Sc. Bioinformatics- <b>Sem IV-Bio- Programming- II</b>	100	LEVEL-3
	M.Sc. Bioinformatics- <b>Sem IV-Research Methodology, IPR and Bioethics</b>	100	LEVEL-3

  
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## Department of Chemistry

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF CHEMISTRY

ACADEMIC SESSION 2020-21

### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

1. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
2. Direct assessment includes semester end examination conducted by the university.
3. Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
4. The degree of attainment of COs/PSOs are expressed in terms of level of attainment

• **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50\%$ marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50\%$ marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50\%$ marks in final examination

• **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40\%$ marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40\%$ marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40\%$ marks in final examination

**Programme Name - B.Sc.**

**Course Name : B.Sc. SEM I CHEMISTRY**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER-I									
GROUP	APP.	PASS	%	A	B	C	D	E	% of student s scoring $>50\%$
PCM	53	50	94.33	48	2	2	1	0	98.11
PHG	12	12	100	11	1	0	0	0	100
BIO	90	80	88.88	62	17	2	7	2	90
BTB	18	16	88.88	14	2	0	2	0	88.88
BTZ	18	16	88.88	15	1	0	2	0	88.88
CEB	15	15	100	14	1	0	0	0	100
CEZ	16	13	81.25	11	1	1	2	1	81.25
MBB	23	22	95.65	21	1	1	0	0	100
MBZ	19	18	94.73	18	0	0	0	1	94.73
TOTAL	264	242	91.66	214	26	6	14	4	93.18

**Course Name : B.Sc. SEM II CHEMISTRY**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER-II									
GROUP	APP.	PASS	%	A	B	C	D	E	% of student s scoring $>50\%$
PCM	53	53	100	53	0	0	0	0	100
PHG	13	11	84.61	11	0	0	0	0	84.61
BIO	93	89	95.69	78	7	4	0	4	95.69
BTB	18	15	83.33	15	0	0	0	0	83.33
BTZ	19	17	89.47	16	0	1	0	2	89.47
CEB	15	15	100	15	0	0	0	0	100
CEZ	12	12	100	12	0	0	0	0	100
MBB	23	23	100	22	1	0	0	0	100
MBZ	19	17	89.47	17	0	0	0	0	89.47
TOTAL	265	252	95.09	239	8	5	0	6	95.09

Course Name : B.Sc. SEM III CHEMISTRY

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMISTER-III									
GROUP	APP.	PASS	%	A	B	C	D	E	% of students scoring $> 50\%$
PCM	61	59	96.72	60	1	0	0	0	100
PHG	22	19	86.36	19	0	0	0	3	86.36
BIO	96	91	94.79	88	3	1	0	4	95.83
BTB	25	24	96	24	0	0	0	1	96
BTZ	24	24	100	24	0	0	0	0	100
CEB	23	22	95.65	21	1	1	0	0	100
CEZ	27	27	100	27	0	0	0	0	100
MBB	24	24	100	24	0	0	0	0	100
MBZ	23	23	100	23	0	0	0	0	100
TOTAL	325	313	96.30	310	5	2	0	8	97.53

Course Name : B.Sc. SEM IV CHEMISTRY

**Result Analysis**

**.30 of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMISTER-IV									
Group	Appeared	Pass	%	A	B	C	D	E	% student scoring $> 50\%$
PCM	59	59	100	59	0	0	0	0	100
PHG	17	17	100	17	0	0	0	0	100
BIO	90	90	100	89	1	0	0	0	100
BTB	23	23	100	23	0	0	0	0	100
BTZ	23	23	100	23	0	0	0	0	100
CEB	23	23	100	22	1	0	0	0	100
CEZ	25	25	100	25	0	0	0	0	100
MBB	23	23	100	23	0	0	0	0	100
MBZ	22	22	100	22	0	0	0	0	100
TOTAL	305	305	100	303	2	0	0	0	100



**Course Name : B.Sc. SEM V CHEMISTRY****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMISTER-V									
Group	Appeared	Pass	%	A	B	C	D	E	%students scoring $> 50\%$
PCM	74	74	100	74	0	0	0	0	100
PHG	21	20	95.23	21	0	0	0	0	100
BIO	102	97	95.09	102	0	0	0	0	100
BTB	24	23	95.83	23	1	0	0	0	100
BTZ	22	20	90.90	22	0	0	0	0	100
CEB	20	20	100	20	0	0	0	0	100
CEZ	24	20	83.33	24	0	0	0	0	100
MBB	24	23	95.83	24	0	0	0	0	100
MBZ	24	24	100	24	0	0	0	0	100
Total	335	321	95.82	334	1	0	0	0	100

**Course Name : B.Sc. SEM VI CHEMISTRY****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMISTER-VI									
Group	Appeared	Pass	%	A	B	C	D	E	%student scoring $> 50\%$
PCM	72	71	98.6	72	0	0	1	0	100
PHG	21	21	100	21	0	0	0	0	100
BIO	98	98	100	95	3	0	0	0	100
BTB	24	24	100	24	0	0	0	0	100
BTZ	27	27	100	26	1	0	0	0	100
CEB	24	24	100	23	1	0	0	0	100
CEZ	22	22	100	21	1	0	0	0	100
MBB	20	20	100	18	2	0	0	0	100
MBZ	24	24	100	20	4	0	0	0	100
TOTAL	332	331	98.6	320	9	0	0	0	99.09

Course Name : M.Sc. CHEMISTRY

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

M.Sc. CHEMISTRY									
SEM	Appeared	Pass	%	A	B	C	D	E	%student scoring $> 50\%$
SEM I	28	27	96.43	27	0	0	0	0	96.429
SEM II	28	28	100	28	0	0	0	0	100
SEM III	25	25	100	25	0	0	0	0	100
SEM IV	25	25	100	25	0	0	0	0	100

**Attainment table for the Academic session 2020-21**

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination( $A+B+C$ ) $\times 100 /$ (appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I CHE	93.18	LEVEL-3
	B.Sc. SEM II CHE	95.09	LEVEL-3
	B.Sc. SEM III CHE	97.53	LEVEL-3
	B.Sc. SEM IV CHE	100	LEVEL-3
	B.Sc. SEM V CHE	100	LEVEL-3
	B.Sc. SEM VI CHE	99.09	LEVEL-3
MSc	M.Sc. SEM I CHE	96.429	LEVEL -3
	M.Sc. SEM II CHE	100	LEVEL -3
	M.Sc. SEM III CHE	100	LEVEL -3
	M.Sc. SEM IV CHE	100	LEVEL -3



## Department of Computer Science

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF Computer Science

ACADEMIC SESSION 2020-21

### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

1. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
2. Direct assessment includes semester end examination conducted by the university.
3. Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
4. The degree of attainment of COs/PSOs are expressed in terms o level of attainment

• **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

• **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination

**Programme Name - B.Sc.**

**Course Name : B.Sc. Computer Science**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER 1								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM	49	49	100.00	49	0	0	0	
CMP	13	13	100.00	13	0	0	0	
TOTAL	62	62	100.00	62	0	0	0	

$$A+B+C = 62+0+0+0 = 62$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is  
= 100 %

SEMESTER 2								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM	45	44	97.78	44	0	0	0	
CMP	17	16	94.12	16	0	0	0	
TOTAL	62	60	96.77	60	0	0	0	

$60+0+0=60$  Therefore % of students those have scored  $\geq 50\%$  marks in final examination is=97%

SEMESTER 3								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM	47	47	100.00	47	0	0	0	
CMP	22	22	100.00	22	0	0	0	
TOTAL	69	69	100.00	69	0	0	0	

$69+0+0=69$  Therefore % of students those have scored  $\geq 50\%$  marks in final examination is=100%

SEMESTER 4								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM	47	47	100	47	0	0	0	
CMP	23	23	100	23	0	0	0	
TOTAL	70	70	100	70	0	0	0	

$70+0+0=70$  Therefore % of students those have scored  $\geq 50\%$  marks in final examination is=100%

SEMESTER 5								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM	47	47	100.00	46	1	0	0	
CMP	23	23	100.00	23	0	0	0	
TOTAL	70	70	100.00	69	1	0	0	

69+1+0=70 Therefore % of students those have scored  $\geq 50$  % marks in final examination is=100%

SEMESTER 6								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM	47	47	100	47	0	0	0	
CMP	23	23	100	23	0	0	0	
TOTAL	70	70	100	70	0	0	0	

70+0+0=70 Therefore % of students those have scored  $\geq 50$  % marks in final examination is=100%

**Programme Name - B.Sc.**

**Course Name : B.Sc. Computer Application (Voc.)**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER 1								
GROUP	APP.	PASS	%	A	B	C	D	E
CAM	17	17	100	16	1	0	0	
CAP	9	9	100	8	1	0	0	
CAS	14	14	100	13	1	0	0	
TOTAL	40	40	100	37	3	0	0	

A+B+C = 37+3+0=40 Therefore % of students those have scored  $\geq 50$  % marks in final examination is =100 %

SEMESTER 2								
GROUP	APP.	PASS	%	A	B	C	D	E
CAM	18	16	88.89	16	0	0	0	
CAP	8	8	100.00	8	0	0	0	
CAS	15	15	100.00	15	0	0	0	
TOTAL	41	39	95.12	39	0	0	0	

39+0+0 = 39 Therefore % of students those have scored  $\geq 50$  % marks in final examination is = 95 %

SEMESTER 3								
GROUP	APP.	PASS	%	A	B	C	D	E
CAM	18	18	100.00	18	0	0	0	
CAP	19	19	100.00	19	0	0	0	
CAS	13	13	100.00	13	0	0	0	
TOTAL	50	50	100.00	50	0	0	0	

$A+B+C = 50+0+0 = 50$  Therefore % of students those have scored  $\geq 50$  % marks in final examination is = 100 %

SEMESTER 4								
GROUP	APP.	PASS	%	A	B	C	D	E
CAM	17	17	100	17	0	0	0	
CAP	20	20	100	20	0	0	0	
CAS	13	13	100	13	0	0	0	
TOTAL	50	50	100	50	0	0	0	

$A+B+C = 50+0+0 = 50$  Therefore % of students those have scored  $\geq 50$  % marks in final examination is = 100 %

SEMESTER 5								
GROUP	APP.	PASS	%	A	B	C	D	E
CAM	13	13	100.00	13	0	0	0	
CAP	27	27	100.00	27	0	0	0	
CAS	23	23	100.00	23	0	0	0	
TOTAL	63	63	100.00	63	0	0	0	

$A+B+C = 63+0+0 = 63$  Therefore % of students those have scored  $\geq 50$  % marks in final examination is = 100%

SEMESTER 6								
GROUP	APP.	PASS	%	A	B	C	D	E
CAM	28	28	100	28	0	0	0	
CAP	13	13	100	13	0	0	0	
CAS	22	22	100	22	0	0	0	
TOTAL	63	63	100	63	0	0	0	

$A+B+C = 63$  Therefore % of students those have scored  $\geq 50$  % marks in final examination is = 100 %



**Programme Name - M.Sc.**

**Course Name : M.Sc. Computer Software**

SEMESTER 1								
GROUP	APP.	PASS	%	A	B	C	D	E
Adv.Java	32	32	100.00	32	0	0	0	
SE&ST	32	32	100.00	32	0	0	0	
.Net Tech using ASP	32	32	100.00	32	0	0	0	
Computer Network	31	31	100.00	31	0	0	0	

SEMESTER 2								
GROUP	APP.	PASS	%	A	B	C	D	E
Prog. In C#	32	32	100	32	0	0	0	
DOS	32	32	100	32	0	0	0	
ADBMS	32	32	100	32	0	0	0	
FOSS	32	32	100	32	0	0	0	

SEMESTER 3								
GROUP	APP.	PASS	%	A	B	C	D	E
Data Ware House & Data Mining	26	26	100.00	26	0	0	0	
PHP Prog.	26	26	100.00	26	0	0	0	
Mob.Comp. with Android	25	25	100.00	25	0	0	0	
Compiler Construction	26	26	100.00	24	1	1	0	

SEMESTER 4								
GROUP	APP.	PASS	%	A	B	C	D	E
Cyber Security & D.F.	26	26	100	25	1	0	0	
Soft Computing	26	25	96	24	1	0	0	
Web Content Management System	26	25	96	23	2	0	0	
Cloud Computing	26	24	92	22	2	0	0	



### Attainment table for the Academic session 2020-21

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination( $A+B+C$ ) $\times 100$ /(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I Comp. Sci.	100	LEVEL-3
	B.Sc. SEM II Comp. Sci.	97	LEVEL-3
	B.Sc. SEM III Comp. Sci.	100	LEVEL-3
	B.Sc. SEM IV Comp. Sci.	100	LEVEL-3
	B.Sc. SEM V Comp. Sci.	100	LEVEL-3
	B.Sc. SEM VI Comp. Sci.	100	LEVEL-3
	B.Sc. SEM I C.A. Voc.	100	LEVEL-3
	B.Sc. SEM II C.A. Voc.	95	LEVEL-3
	B.Sc. SEM III C.A. Voc..	100	LEVEL-3
	B.Sc. SEM IV C.A. Voc..	100	LEVEL-3
	B.Sc. SEM V C.A. Voc.	100	LEVEL-3
	B.Sc. SEM VI C.A. Voc.	100	LEVEL-3
B.C.A.	B.C.A. SEM I C.F.	100	LEVEL-3
	B.C.A. SEM I C Lang.	100	LEVEL-3
	B.C.A. SEM I D.T.	100	LEVEL-3
	B.C.A. SEM I N.M.	100	LEVEL-3
	B.C.A. SEM I D.M	100	LEVEL-3
	B.C.A. SEM I CS	99	LEVEL-3
	B.C.A. SEM II OS	100	LEVEL-3
	B.C.A. SEM II C-Prog.	100	LEVEL-3
	B.C.A. SEM II DT-I	100	LEVEL-3
	B.C.A. SEM II NM	100	LEVEL-3
	B.C.A. SEM II DM	97	LEVEL-3
	B.C.A. SEM II CS	100	LEVEL-3
	B.C.A. SEM III DS	100	LEVEL-3
	B.C.A. SEM III OOP	100	LEVEL-3
	B.C.A. SEM III DBMS	100	LEVEL-3
	B.C.A. SEM III AOS	100	LEVEL-3
	B.C.A. SEM III Electronics	100	LEVEL-3
	B.C.A. SEM IV SAD/MIS	100	LEVEL-3
	B.C.A. SEM IV VB	100	LEVEL-3
	B.C.A. SEM IV WAD	100	LEVEL-3
	B.C.A. SEM IV Networking	100	LEVEL-3
	B.C.A. SEM IV Ad. Micro.	100	LEVEL-3
	B.C.A. SEM V Core Java	100	LEVEL-3
	B.C.A. SEM V Network Security	100	LEVEL-3
	B.C.A. SEM V Software Engineering	92.72	LEVEL-3
	B.C.A. SEM V Computer Graphics	90.54	LEVEL-3
	B.C.A. SEM V E commerce	84.93	LEVEL-3
	B.C.A. SEM VI .Net	92	LEVEL-3

	B.C.A. SEM VI CST	95.65	LEVEL-3
	B.C.A. SEM VI ADBMS	100	LEVEL-3
	B.C.A. SEM VI MMT	100	LEVEL-3
	B.C.A. SEM VI Soft. Testing	100	LEVEL-3
<b>Programme</b>	<b>Course</b>	<b>% of enrolled students those have scored <math>\geq 40</math> % marks in final examination (<math>A+B+C+D</math>)X100/(appeared students)</b>	<b>COs Attainment Level as per benchmark</b>
M.Sc. Computer Soft	M.Sc. Computer Soft. Sem I- Adv.Java	100	LEVEL-3
	M.Sc. Computer Soft. Sem I- SE&ST	100	LEVEL-3
	M.Sc. Computer Soft. Sem I.Net Techusing ASP	100	LEVEL-3
	M.Sc. Computer Soft. Sem I- - ComputerNetwork	100	LEVEL-3
	M.Sc. Computer Soft. Sem II- Prog. In C#	100	LEVEL-3
	M.Sc. Computer Soft. Sem II - DOS	100	LEVEL-3
	M.Sc. Computer Soft. Sem II - ADBMS	100	LEVEL-3
	M.Sc. Computer Soft. Sem II - FOSS	100	LEVEL-3
	M.Sc. Computer Soft. Sem III- Data Ware House & Data Mining	100	LEVEL-3
	M.Sc. Computer Soft. Sem III PHP Prog	100	LEVEL-3
	M.Sc. Computer Soft. Sem III - Mob.Comp. with Android	100	LEVEL-3
	M.Sc. Computer Soft. Sem III Compiler Construction	100	LEVEL-3
	M.Sc. Computer Soft. Sem IV Cyber Security & D.F.	100	LEVEL-3
	M.Sc. Computer Soft. Sem IV Soft Computing	100	LEVEL-3
	M.Sc. Computer Soft. Sem IV Web Content Management System	100	LEVEL-3
	M.Sc. Computer Soft. Sem IV - Cloud Computing	100	LEVEL-3

  
 Dept. of Computer Science  
 Shri Shivalaya College  
 Anantnag.

## Department of Environmental Science

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF ENVIRONMENTAL SCIENCE

ACADEMIC SESSION 2020-21

EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

1. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
2. Direct assessment includes semester end examination conducted by the university.
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4. The degree of attainment of COs/PSOs are expressed in terms o level of attainment

- **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

- **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination



**Programme Name - B.Sc.**

**Course Name : B.Sc. SEM I ENVIRONMENTAL SCIENCE**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER I								
GROUP	APP.	PASS	%	A	B	C	D	E
CEB	14	14	100	13	1			
CEZ	17	17	100	16	1			
TOTAL	31	31	100	29	2			

$$A+B+C = 29+2+0 = 31$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 31 \times 100 / 31 = 100\%$$

SEMESTER II								
GROUP	APP.	PASS	%	A	B	C	D	E
CEB	14	14	100	13	1			
CEZ	17	17	100	16	1			
TOTAL	31	31	100	29	2			

$$A+B+C = 29+2+0 = 31$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 31 \times 100 / 31 = 100\%$$

SEMESTER III								
GROUP	APP.	PASS	%	A	B	C	D	E
CEB	23	23	100	23				
CEZ	27	27	100	27				
TOTAL	50	50	100	50				

$$A+B+C = 50+0+0 = 50$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 50 \times 100 / 50 = 100\%$$

SEMESTER IV								
GROUP	APP.	PASS	%	A	B	C	D	E
CEB	23	23	100	22	1			
CEZ	27	27	100	26	1			
TOTAL	50	50	100	48	2			

$$A+B+C = 48+2 = 50$$



Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 50 \times 100 / 50 = 100 \%$$

SEMESTER V								
GROUP	APP.	PASS	%	A	B	C	D	E
CEB	20	20	100	18	2			
CEZ	24	24	100	24				
TOTAL	44	44	100	42	2			

$$A+B+C = 42+2+0 = 44$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 44 \times 100 / 44 = 100 \%$$

SEMESTER VI								
GROUP	APP.	PASS	%	A	B	C	D	E
CEB	20	20	100	13	7			
CEZ	24	24	100	17	7			
TOTAL	44	44	100	30	14			

$$A+B+C = 30+14=44$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 44 \times 100 / 44 = 100 \%$$

#### Attainment table for the Academic session 2020-21

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination( $A+B+C$ ) $\times 100$ /(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I EVS	100	LEVEL-3
	B.Sc. SEM II EVS	100	LEVEL-3
	B.Sc. SEM III EVS	100	LEVEL-3
	B.Sc. SEM IV EVS	100	LEVEL-3
	B.Sc. SEM V EVS	100	LEVEL-3
	B.Sc. SEM VI EVS	100	LEVEL-3
M.Sc. Environmental Sci.	M.Sc. Environmental Sci. Sem I- Environmental Sci.-A Interdisciplinary Approach	96.29	LEVEL-3
	M.Sc. Environmental Sci. Sem I- Concepts Of Ecology & Biodiversity	100	LEVEL-3
	M.Sc. Physics Sem I- Environmental Chemistry	100	LEVEL-3
	M.Sc. Environmental Sci. Sem I- Geodynamics & Energy Resources	100	LEVEL-3

	M.Sc. Environmental Sci. Sem II- Bioinformatics In Environmental Analysis	100	LEVEL-3
	M.Sc. Physics Sem II- Environmental Microbiology	100	LEVEL-3
	M.Sc. Environmental Sci. Sem II- Air & Noise Pollution	100	LEVEL-3
	M.Sc. Environmental Sci. Sem II- Water Pollution	100	LEVEL-3
	M.Sc. Environmental Sci. Sem III- Terrestrial Pollution	95.83	LEVEL-3
	M.Sc. Environmental Sci. Sem III- Remote Sensing, GIS & Computer Application	95.83	LEVEL-3
	M.Sc. Environmental Sci. Sem III- Environmental Impact Assessment & Audit	100	LEVEL-3
	M.Sc. Environmental Sci. Sem III- Pollution Control Technology	100	LEVEL-3
	M.Sc. Environmental Sci. Sem IV- Environmental Toxicology & Hazardous Waste Mngt	95.83	LEVEL-3
	M.Sc. Environmental Sci. Sem IV- Industrial Hygiene & Safety	95.83	LEVEL-3
	M.Sc. Environmental Sci. Sem IV- Nature Conservation & Environmental Mngt.	100	LEVEL-3
	M.Sc. Environmental Sci. Sem IV- Environmental Policies Legislation	100	LEVEL-3

  
**Dr. S.P. Ingole**  
 Head  
 Dept. Of Environmental Science  
 Shri Shivaji Science College,  
 Amravati.

## Department of Geology

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF GEOLOGY

ACADEMIC SESSION 2020 - 21

**EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)**

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LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

• **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination

**Programme Name - B.Sc.**

**Course Name : B.Sc. SEM I GEO**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER I								
GROUP	APP.	PASS	%	A	B	C	D	E
CAP	8	8	100	7	1	-	-	-
PHG	12	12	100	10	2	-	-	-
TOTAL	20	20	100	17	3	-	-	-

$$A+B+C = 17+3+0=20$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is  
 $= 20 \times 100 / 20 = 100\%$

**Course Name : B.Sc. SEM II GEO**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER II								
GROUP	APP.	PASS	%	A	B	C	D	E
CAP	8	8	100	8	-	-	-	0
PHG	12	10	83.33	10	-	-	-	2
TOTAL	20	18	90	18	-	-	-	2

$$A+B+C = 18+0+0=18$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is  
 $= 18 \times 100 / 20 = 90\%$

**Course Name : B.Sc. SEM III GEO**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER III								
GROUP	APP.	PASS	%	A	B	C	D	E
CAP	19	19	100	15	4	-	-	-
PHG	20	20	100	19	1	-	-	-
TOTAL	39	39	100	34	5	-	-	-

$$A+B+C = 34+5+0=39$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is  
 $= 39 \times 100 / 39 = 100\%$



**Course Name : B.Sc. SEM IV GEO**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER IV								
GROUP	APP.	PASS	%	A	B	C	D	E
CAP	19	19	100	18	-	1	-	-
PHG	20	20	100	20	-	-	-	-
TOTAL	39	39	100	38	-	1	-	-

$$A+B+C = 38+0+1=39$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 39 \times 100 / 39 = 100\%$$

**Course Name : B.Sc. SEM V GEO**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER V								
GROUP	APP.	PASS	%	A	B	C	D	E
CAP	18	18	100	18	-	-	-	-
PHG	21	21	100	21	-	-	-	-
TOTAL	39	39	100	39	-	-	-	-

$$A+B+C = 39+0+0=39$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 39 \times 100 / 39 = 100\%$$

**Course Name : B.Sc. SEM VI GEO**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER VI								
GROUP	APP.	PASS	%	A	B	C	D	E
CAP	18	18	100	17	1	-	-	-
PHG	21	21	100	21	0	-	-	-
TOTAL	39	39	100	38	1	-	-	-

$$A+B+C = 38+1+0=39$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 39 \times 100 / 39 = 100\%$$

**Attainment table for the Academic session 2020-21**

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination( $A+B+C$ ) $\times 100$ /(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I GEO	100	LEVEL-3
	B.Sc. SEM II GEO	90	LEVEL-3
	B.Sc. SEM III GEO	100	LEVEL-3
	B.Sc. SEM IV GEO	100	LEVEL-3
	B.Sc. SEM V GEO	100	LEVEL-3
	B.Sc. SEM VI GEO	100	LEVEL-3

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## Department of Mathematics

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF MATHEMATICS

ACADEMIC SESSION 2020-21

### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

1. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
2. Direct assessment includes semester end examination conducted by the university.
3. Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
4. The degree of attainment of COs/PSOs are expressed in terms of level of attainment

- **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

- **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination



## Evaluation of attainment of COs for 2020-21

Programme Name - B.Sc.

Course Name : B.Sc. SEM I MATHEMATICS

### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER I								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	54	54	100	51	01	00	02	00
CSM	45	45	100	43	02	00	00	00
CMP	17	17	100	16	01	00	00	00
CAM	17	17	100	17	00	00	00	00
CAS	15	17	100	15	00	00	00	00
TOTAL	148	148	100	142	04	00	02	00

$$A+B+C = 145+0+0=145$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 148 \times 100 / 148 = 100\%$$

Course Name : B.Sc. SEM II MATHEMATICS

### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER II								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	53	53	100	53	0	0	0	0
CSM	44	44	100	44	0	0	0	0
CMP	16	16	100	16	0	0	0	0
CAM	16	16	100	16	0	0	0	0
CAS	16	16	100	16	0	0	0	0
TOTAL	145	145	100	145	0	0	0	0

$$A+B+C = 145+0+0=145$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 145 \times 100 / 145 = 100\%$$

Course Name : B.Sc. SEM III MATHEMATICS

### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks



B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER III								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	61	61	100	59	02	0	0	0
CSM	47	47	100	46	01	00	00	00
CMP	23	23	100	23	0	0	0	0
CAM	19	19	100	18	0	1	0	0
CAS	12	12	100	11	1	0	0	0
TTOTAL	162	162	100	157	4	1	00	00

$$A+B+C = 157+4+1 = 162$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 162 \times 100 / 162 = 100\%$$

Course Name : B.Sc. SEM IV MATHEMATICS

#### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER IV								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	61	61	100	61	0	0	0	0
CSM	47	47	100	47	0	0	0	0
CMP	23	23	100	23	0	0	0	0
CAM	18	18	100	18	0	0	0	0
CAS	12	12	100	12	0	0	0	0
TOTAL	161	161	100	161	0	0	0	0

$$A+B+C = 161+0+0=161$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 161 \times 100 / 161 = 100\%$$

Course Name : B.Sc. SEM V MATHEMATICS

#### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER V								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	72	72	100	69	02	01	00	00
CSM	46	46	100	46	00	00	00	00
CMP	24	24	100	21	00	02	01	00
CAM	22	22	100	22	00	00	00	00

CAS	23	23	100	23	00	00	00	00
TOTAL	187	187	100	181	02	03	01	00

$$A+B+C = 181+02+03=186$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 186 \times 100 / 187 = 99.47 \%$$

Course Name : B.Sc. SEM VI MATHEMATICS

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER VI								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	71	71	100	70	01	00	00	00
CSM	47	47	100	47	00	00	00	00
CMP	25	25	100	22	00	01	02	00
CAM	22	22	100	22	00	00	00	00
CAS	23	23	100	23	00	00	00	00
TOTAL	188	188	100	184	01	01	02	00

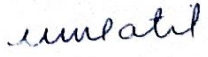
$$A+B+C = 184+1+1=186$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 186 \times 100 / 188 = 98.94 \%$$

**Attainment table for the Academic session 2020-21**

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination (A+B+C)X100/(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I MATHEMATICS	100	LEVEL-3
	B.Sc. SEM II MATHEMATICS	100	LEVEL-3
	B.Sc. SEM III MATHEMATICS	100	LEVEL-3
	B.Sc. SEM IV MATHEMATICS	100	LEVEL-3
	B.Sc. SEM V MATHEMATICS	99.47	LEVEL-3
	B.Sc SEM VI MATHEMATICS	98.94	LEVEL-3

  
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## Department of Microbiology

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF Microbiology

ACADEMIC SESSION 2020-21

### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

1. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
2. Direct assessment includes semester end examination conducted by the university.
3. Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
4. The degree of attainment of COs/PSOs are expressed in terms o level of attainment

- The benchmarks defined for measurement of attainment levels for UG are-

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

- The benchmarks defined for measurement of attainment levels for PG are-

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination



**Programme Name - B.Sc.**

**Course Name : B.Sc. SEM I Microbiology**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER- I								
GROUP	APP.	PASS	%	A	B	C	D	E
MBB	20	20	100	20	-	-	-	-
MBZ	18	18	100	18	-	-	-	-
TOTAL	38	38	100	38	--	-	-	-

$$A+B+C = 38+0+0 = 38$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 38 \times 100 / 38 = 100\%$$

**Course Name : B.Sc. SEM II Microbiology**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -II								
GROUP	APP.	PASS	%	A	B	C	D	E
MBB	22	22	100	20	2	-	-	-
MBZ	19	17	89	17	-	-	-	-
TOTAL	41	39	94.5	37	2	-	-	-

$$A+B+C = 37+2+0 = 39$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 39 \times 100 / 41 = 95.12\%$$

**Course Name : B.Sc. SEM III Microbiology**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks



SEMESTER -III								
GROUP	APP.	PASS	%	A	B	C	D	E
MBB	25	25	100	25	-	-	-	-
MBZ	22	22	100	22	-	-	-	-
TOTAL	47	47	100	47	-	-	-	-

$$A+B+C = 47+0+0 = 47$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 47 \times 100 / 47 = 100 \%$$

**Course Name : B.Sc. SEM IV Microbiology**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -IV								
GROUP	APP.	PASS	%	A	B	C	D	E
MBB	25	25	100	25	-	-	-	-
MBZ	22	22	100	22	-	-	-	-
TOTAL	47	47	100	47	-	-	-	-

$$A+B+C =$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 47 \times 100 / 47 = 100\%$$

**Course Name : B.Sc. SEM V Microbiology**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -V								
GROUP	APP.	PASS	%	A	B	C	D	E
MBB	24	24	100	24	-	-	-	-
MBZ	27	27	100	27	-	-	-	-
TOTAL	51	51	100	51	-	-	-	-

$$A+B+C = 51+0+0 = 51$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is=

$$51 \times 100 / 51 = 100 \%$$

Course Name : B.Sc. SEM VI Microbiology

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -VI								
GROUP	APP.	PASS	%	A	B	C	D	E
MBB	24	24	100	24	-	-	-	-
MBZ	26	26	100	26	-	-	-	-
TOTAL	50	50	100	50	-	-	-	-

$$A+B+C = 50+0+0=50$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 50 \times 100 / 50 = 100\%$$

**Attainment table for the Academic session 2020-21**

Programme	Course	% of enrolled students those have scored $\geq 50\%$ marks in final examination ( $A+B+C$ ) $\times 100$ /(appeared students)	COs Attainment Level as per benchmark
B.Sc. (U.G.)	B.Sc. SEM I MCB	100	LEVEL-3
	B.Sc. SEM II MCB	95.12	LEVEL-3
	B.Sc. SEM III MCB	100	LEVEL-3
	B.Sc. SEM IV MCB	100	LEVEL-3
	B.Sc. SEM V MCB	100	LEVEL-3
	B.Sc. SEM VI MCB	100	LEVEL-3

## Department of Physics

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

### DEPARTMENT OF PHYSICS

ACADEMIC SESSION 2020-21

#### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

1. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
2. Direct assessment includes semester end examination conducted by the university.
3. Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
4. The degree of attainment of COs/PSOs are expressed in terms of level of attainment

• **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

• **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination

**Programme Name - B.Sc.**

**Course Name : B.Sc. SEM I**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER-I								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	55	55	100	55	0	0	0	0
PHG	13	13	100	13	0	0	0	0
CMP	19	19	100	19	0	0	0	0
CAP	07	07	100	07	0	0	0	0
CAM	14	14	100	14	0	0	0	0
<b>TOTAL</b>	<b>108</b>	<b>108</b>		<b>108</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

$$A+B+C = 108 + 00 + 00 = 108$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 108 \times 100 / 108 = 100\%$$

**Course Name : B.Sc. SEM II**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER-II								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	55	55	100	55	0	0	0	0
PHG	11	11	100	11	0	0	0	0
CMP	18	18	100	18	0	0	0	0
CAP	07	07	100	07	0	0	0	0
CAM	12	12	100	12	0	0	0	0
<b>TOTAL</b>	<b>103</b>	<b>103</b>		<b>103</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

$$A+B+C = 103 + 0 + 0 = 103$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 103 \times 100 / 103 = 100\%$$



**Course Name : B.Sc. SEM III****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER-III								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	61	61	100	60	01	0	0	0
PHG	20	20	100	19	01	0	0	0
CMP	23	23	100	23	0	0	0	0
CAP	19	19	100	19	0	0	0	0
CAM	18	18	100	18	0	0	0	0
TOTAL	141	141		139	02	0	0	0

$$A+B+C = 139+02+00 = 141$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 141 \times 100 / 141 = 100\%$$

**Course Name : B.Sc. SEM IV****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER-IV								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	61	61	100	61	0	0	0	0
PHG	20	20	100	20	0	0	0	0
CMP	22	22	100	22	0	0	0	0
CAP	19	19	100	19	0	0	0	0
CAM	18	18	100	18	0	0	0	0
TOTAL	140	140		140	0	0	0	0

$$A+B+C = 140+0+0=140$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 140 \times 100 / 140 = 100\%$$

Course Name : B.Sc. SEM

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER-V								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	71	71	100	71	0	0	0	0
PHG	21	21	100	21	0	0	0	0
CMP	24	24	100	24	0	0	0	0
CAP	17	17	100	17	0	0	0	0
CAM	21	21	100	21	0	0	0	0
TOTAL	154	154		154	0	0	0	0

$$A+B+C = 154+00+00 = 154$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is=  
 $154 \times 100 / 154 = 100\%$

Course Name : B.Sc. SEM VI

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks


SEMESTER-VI								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	71	71	100	71	0	0	0	0
PHG	22	22	100	22	0	0	0	0
CMP	26	26	100	23	03	0	0	0
CAP	17	17	100	17	0	0	0	0
CAM	21	21	100	21	0	0	0	0
TOTAL	157	157	157	154	03	0	0	0

$$A+B+C = 154+03+0=157$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is  
 $= 157 \times 100 / 157 = 100\%$

**Attainment table for the Academic session 2020-21**

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination( $A+B+C$ ) $\times 100$ /(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I PHY	100	LEVEL-1
	B.Sc. SEM II PHY	100	LEVEL-3
	B.Sc. SEM III PHY	100	LEVEL-3
	B.Sc. SEM IV PHY	100	LEVEL-3
	B.Sc. SEM V PHY	100	LEVEL-3
	B.Sc. SEM VI PHY	100	LEVEL-3
M.Sc. Physics	M.Sc. Physics Sem I- Mathematical Physics	100	LEVEL-3
	M.Sc. Physics Sem I- Classical Mechanics	100	LEVEL-3
	M.Sc. Physics Sem I- Quantum Mechanics -I	100	LEVEL-0
	M.Sc. Physics Sem I- Computational Methods & Programming	100	LEVEL-2
	M.Sc. Physics Sem II- Electrodynamics-I	100	LEVEL-3
	M.Sc. Physics Sem II- Quantum Mechanics -II	100	LEVEL-3
	M.Sc. Physics Sem II- Solid State Physics	100	LEVEL-3
	M.Sc. Physics Sem II- Network Theorem & Solid State Devices	100	LEVEL-3
	M.Sc. Physics Sem III- Electrodynamics-II	100	LEVEL-3
	M.Sc. Physics Sem III- Statistical Mechanics	100	LEVEL-3
	M.Sc. Physics Sem III- Atomic & Molecular Physics	100	LEVEL-3
	M.Sc. Physics Sem III- Condensed Matter Physics-I	100	LEVEL-3
	M.Sc. Physics Sem IV- Nuclear & Particle Physics	100	LEVEL-3
	M.Sc. Physics Sem IV- OPAMP & its Applications	100	LEVEL-3
	M.Sc. Physics Sem IV- Condensed Matter Physics-II	100	LEVEL-3
	M.Sc. Physics Sem IV- Nanoscience & Nanotechnology	100	LEVEL-3

  
**HEAD**  
 Department of Physics  
 Shri Shivaji Science College  
 Amravati.

## Department of Statistics

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF Statistics

ACADEMIC SESSION 2020-21

### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

9. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
10. Direct assessment includes semester end examination conducted by the university.
11. Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
12. The degree of attainment of COs/PSOs are expressed in terms of level of attainment

- The benchmarks defined for measurement of attainment levels for UG are-

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

- The benchmarks defined for measurement of attainment levels for PG are-

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination



**Programme Name - B.Sc.**

**Course Name : B.Sc. SEM I Statistics**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER 1								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM+CAS	61	61	100	61	0	0	0	0
TOTAL	61	61	100	61	0	0	0	0

$$A+B+C = 61+0+0=61$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 61 \times 100 / 61 = 100\%$$

SEMESTER 2								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM+CAS	61	61	100	61	0	0	0	0
TOTAL	61	61	100	61	0	0	0	0

$$A+B+C = 61+0+0=61$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 61 \times 100 / 61 = 100\%$$

SEMESTER 3								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM+CAS	60	60	100	60	0	0	0	0
TOTAL	60	60	100	60	0	0	0	0

$$A+B+C = 60+0+0$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 60 \times 100 / 60 = 100\%$$

SEMESTER 4								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM+CAS	60	60	100	60	0	0	0	0
TOTAL	60	60	100	60	0	0	0	0

$$A+B+C = 55+12+0$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 67 \times 100 / 67 = 100\%$$

SEMESTER 5								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM+CAS	71	71	100	71	0	0	0	0
TOTAL	71	71	100	71	0	0	0	0

$$A+B+C = 71+0+0$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 71 \times 100 / 70 = 100\%$$

SEMESTER 6								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM+CAS	71	71	100	71	0	0	0	0
TOTAL	71	71	100	71	0	0	0	0

$$A+B+C = 71+0+0$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 71 \times 100 / 70 = 100\%$$

### Attainment table for the Academic session 2019-20

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination ( $A+B+C$ ) $\times 100$ / (appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I STAT	100%	LEVEL-3
	B.Sc. SEM II STAT	100%	LEVEL-3
	B.Sc. SEM III STAT	100%	LEVEL-3
	B.Sc. SEM IV STAT	100%	LEVEL-3
	B.Sc. SEM V STAT	100%	LEVEL-3
	B.Sc. SEM VI STAT	100%	LEVEL-3

## Department of Zoology

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF Zoology

ACADEMIC SESSION 2020-21

**EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)**

1. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
2. Direct assessment includes semester end examination conducted by the university.
3. Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and student's feedback.
4. The degree of attainment of COs/PSOs are expressed in terms of level of attainment

• **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

• **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination

**Programme Name - B.Sc.**

**Course Name: B.Sc. SEM I Zoo**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER 1								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	87	82	94.25%	80	02	00	00	00
MEB	54	52	96.29%	50	02	00	00	00
TOTAL	141	134	95.03%	130	04	00	00	00

SEMESTER 2								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	93	87	93.54%	84	03	00	00	00
MEB	52	49	94.23%	47	02	00	00	00
TOTAL	145	136	93.79%	131	05	00	00	00

SEMESTER 3								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	93	93	100	91	2	0	0	0
MEB	73	73	100	71	2	0	0	0
TOTAL	166	166	100	162	4	0	0	0

SEMESTER 4								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	93	93	100	92	0	01	0	0
MEB	72	72	100	72	0	0	0	0
TOTAL	165	165	100	164	0	01	0	0

SEMESTER 5								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	99	98	100	98	1	0	0	0
MEB	73	73	100	73	0	0	0	0
TOTAL	172	171	100	171	1	0	0	0

SEMESTER 6								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	98	98	100	97	1	00	00	00
MEB	73	73	100	73	0	00	00	00
TOTAL	171	171	100	170	01	00	00	00



MSc Zoology-2020-2021									
Sem	Paper	APP.	PASS	%	A	B	C	D	E
W-2020 I	I	23	23	100	23	0	0	0	0
I	II	22	22	100	19	04	0	0	01
I	III	23	23	100	0	0	0	0	0
I	IV	23	23	100	09	14	0	0	0
W-2020 III	I	22	22	100	20	02	0	0	0
III	II	22	22	100	03	14	05	0	0
III	III	22	22	100	22	0	0	0	0
III	IV	22	22	100	20	02	0	0	0
S-2021 II	I	23	23	100	23	0	0	0	0
II	II	23	23	100	23	0	0	0	0
II	III	23	23	100	23	0	0	0	0
II	IV	23	23	100	23	0	0	0	0
S-2021 IV	I	22	22	100	0	22	0	0	0
IV	II	22	22	100	22	0	0	0	0
IV	III	22	22	100	10	12	0	0	0
IV	IV	22	22	100	04	18	0	0	0

$$A+B+C = 19+38+27 = 84$$


Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 84 \times 100 / 150 = 56 \%$$

#### Attainment table for the Academic session 2020-2021

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination( $(A+B+C) \times 100 / (\text{appeared students})$ )	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I ZOO	100	LEVEL-3
	B.Sc. SEM II ZOO	100	LEVEL-3
	B.Sc. SEM III ZOO	100	LEVEL-3
	B.Sc. SEM IV ZOO	100	LEVEL-3
	B.Sc. SEM V ZOO	100	LEVEL-3
	B.Sc. SEM VI ZOO	100	LEVEL-3
M.Sc. Zoology	M.Sc. ZOO Sem I-	100	LEVEL-3

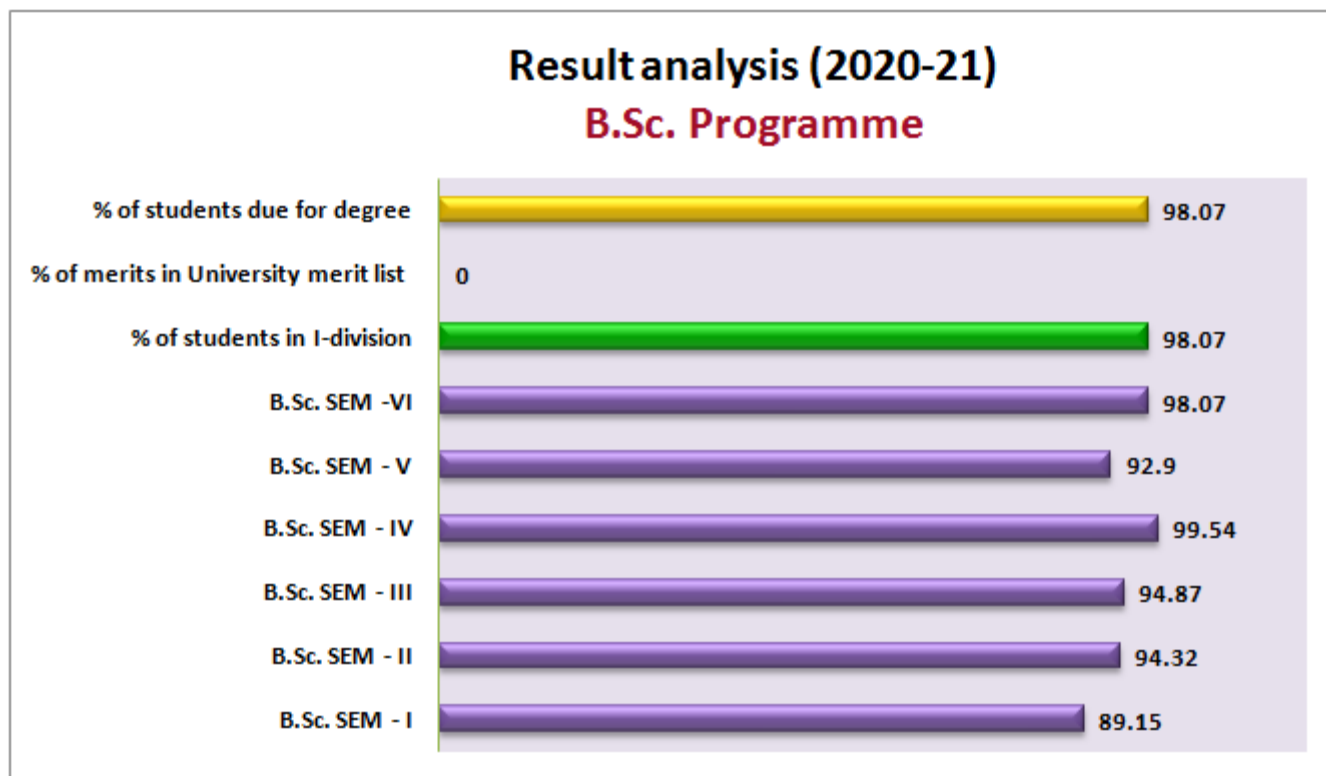
	ANIMAL STRUCTURE AND FUNCTION (NON-CHORDATA)		
	M.Sc. ZOO Sem I- ANIMAL STRUCTURE AND FUNCTION (CHORDATA)	100	LEVEL-3
	M.Sc. ZOO Sem I- GAMETE BIOLOGY	100	LEVEL-3
	M.Sc. ZOO Sem I- GENES AND DIFFERENTIATION	100	LEVEL-3
	M.Sc. ZOO Sem II- MOLECULAR CELL BIOLOGY	100	LEVEL-3
	M.Sc. ZOO Sem II- TOOLS AND TECHNIQUES IN BIOLOGY	100	LEVEL-3
	M.Sc. ZOO Sem II- ENDOCRINOLOGY	100	LEVEL-3
	M.Sc. ZOO Sem II- Ecology and ENVIRONMENT	100	LEVEL-3
	M.Sc. ZOO Sem III- MOLECULAR CYTOGENETICS- I	100	LEVEL-3
	M.Sc. ZOO Sem III- MOLECULAR CYTOGENETICS- II	100	LEVEL-3
	M.Sc. ZOO Sem III- Animal Physiology -I	100	LEVEL-3
	M.Sc. ZOO Sem III- Animal Physiology -II	100	LEVEL-3
	M.Sc. ZOO Sem IV- Biochemistry	100	LEVEL-3
	M.Sc. ZOO Sem IV- ENZYMOLOGY AND BIostatISTICS	100	LEVEL-3
	M.Sc. ZOO Sem IV- Animal Physiology -III	100	LEVEL-3
	M.Sc. ZOO Sem IV- Animal Physiology -IV	100	LEVEL-3

  
**Dr. R. G. Jadhao**  
 Professor & Head  
 Dept. of Zoology  
 Shri Shivaji Science College,  
 Amravati.

## Evaluation of Attainment of POs and PSOs (2020-21)

Programmes	Average attainment level of all courses of B.Sc. Programme	% of students scoring marks $\geq 60\%$ #	% of students due for degree	Level of attainment of PSOs and POs
B.Sc.	LEVEL-3 ( <i>above 70 % of passed students have scored more than 50% marks</i> )	98.07	98.07	LEVEL-3
B.C.A.	LEVEL-3	98.57	98.57	LEVEL-3
M.Sc. Botany	LEVEL-3	95.83	95.83	LEVEL-3
M.Sc. Bioinformatics	LEVEL-3	100	100	LEVEL-3
M.Sc. Chemistry	LEVEL-3	100	100	LEVEL-3
M.Sc. Computer Software	LEVEL-3	92.31	92.31	LEVEL-3
M.Sc. Environmental Science	LEVEL-3	100	100	LEVEL-3
M.Sc. Physics	LEVEL-3	100	100	LEVEL-3
M.Sc. Zoology	LEVEL-3	100	100	LEVEL-3

## Evaluation of Attainment of COs, PSOs and POs Through result Analysis (2020-21)





2019-20

## Department of Biotechnology

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF Biotechnology

ACADEMIC SESSION 2019-20

## EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

- The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
- Direct assessment includes semester end examination conducted by the university.
- Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
- The degree of attainment of COs/PSOs are expressed in terms of level of attainment

- The benchmarks defined for measurement of attainment levels for UG are-

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50\%$ marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50\%$ marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50\%$ marks in final examination

Programme Name - B.Sc.

Course Name : B.Sc. SEM I Biotechnology

## Result Analysis of Semester End Examination

- A - No. of students those who have scored  $\geq 75\%$  marks  
 B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks  
 C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

GROUP	APP.	PASS	SEMESTER- I					E
			%	A	B	C	D	
BTB	25	20	80	2	8	11	4	-
BTZ	22	16	72	3	8	5	3	3
TOTAL	47	36	76	5	16	16	7	3

$$A+B+C = 5+16+16=37$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is  
 $= 37 \times 100 / 47 = 78\%$

Course Name : B.Sc. SEM II Biotechnology

## Result Analysis of Semester End Examination

- A - No. of students those who have scored  $\geq 75\%$  marks  
 B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks  
 C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -II

GROUP	APP.	PASS	%	A	B	C	D	E
BTB	25	25	100	23	2	-	-	-
BTZ	23	23	100	19	2	2	-	-
TOTAL	48	48	100	42	4	2	-	-

$$A+B+C = 42+4+2 = 48$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is  
 $= 48 \times 100 / 48 = 100\%$

**Course Name : B.Sc. SEM III Biotechnology**

**Result Analysis of Semester End Examination**

- A - No. of students those who have scored  $\geq 75\%$  marks  
 B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks  
 C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -III								
GROUP	APP.	PASS	%	A	B	C	D	E
BTB	20	17	85	4	7	7	-	2
BTZ	20	19	95	8	8	3	-	1
TOTAL	40	36	90	12	15	10	-	3

$$A+B+C = 12+15+10 = 37$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is  
 $= 37 \times 100 / 40 = 92\%$

**Course Name : B.Sc. SEM IV Biotechnology**

**Result Analysis of Semester End Examination**

- A - No. of students those who have scored  $\geq 75\%$  marks  
 B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks  
 C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -IV								
GROUP	APP.	PASS	%	A	B	C	D	E
BTB	20	20	100	18	2	-	-	-
BTZ	20	20	100	19	1	-	-	-
TOTAL	40	40	100	37	3	-	-	-

$$A+B+C = 37+3+0=40$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is  
 $= 40 \times 100 / 40 = 100\%$

**Course Name : B.Sc. SEM V Biotechnology**

**Result Analysis of Semester End Examination**

- A - No. of students those who have scored  $\geq 75\%$  marks  
 B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks



C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -V								
GROUP	APP.	PASS	%	A	B	C	D	E
BTB	19	18	94	2	13	2	1	1
BTZ	24	20	83	10	7	1	2	4
TOTAL	43	38	81	12	20	3	3	5

$$A+B+C = 12+20+3 = 35$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is  $= 35 \times 100 / 43 = 81\%$

Course Name : B.Sc. SEM VI Biotechnology

### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -VI								
GROUP	APP.	PASS	%	A	B	C	D	E
BTB	19	19	100	19	-	-	-	-
BTZ	25	25	100	25	-	-	-	-
TOTAL	44	44	100	44	-	-	-	-

$$A+B+C = 44+0+0=44$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is  
 $= 44 \times 100 / 44 = 100\%$

### Attainment table for the Academic session 2019-20

Programme	Course	% of enrolled students those have scored $\geq 50\%$ marks in final examination (A+B+C)X100/(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I BTC	78	LEVEL-3
	B.Sc. SEM II BTC	100	LEVEL-3
	B.Sc. SEM III BTC	92	LEVEL-3
	B.Sc. SEM IV BTC	100	LEVEL-3
	B.Sc. SEM V BTC	81	LEVEL-3
	B.Sc. SEM VI BTC	100	LEVEL-3

*Chakraborty*  
 Department of Microbiology  
 Shivaji Science College  
 Amravati

## Department of Botany

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF BOTANY

ACADEMIC SESSION 2019-20

**EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)**

1. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
2. Direct assessment includes semester end examination conducted by the university.
3. Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and student's feedback.
4. The degree of attainment of COs/PSOs are expressed in terms of level of attainment

- The benchmarks defined for measurement of attainment levels for UG are-

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

- The benchmarks defined for measurement of attainment levels for PG are-

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination



## Evaluation of attainment of COs for 2019-20

Programme Name - B.Sc.

Course Name : B.Sc. SEM I BOT

### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER I (W-19)								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	95	58	61.05	1	8	7	42	41
BTB	25	16	64.00	3	4	3	6	10
CEB	24	12	50.00	0	2	2	8	13
MBB	26	24	92.31	0	2	7	15	2
TOTAL	170	110	64.71	4	16	19	29.0	25.0

$$A+B+C = 4+16+19 = 39$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is  
 $= 39 \times 100 / 170 = 23\%$

SEMESTER II (S-19)								
GROUP	APP.	PASS	%	A %	B%	C%	D%	E%
BIO+MEB	158	132	84	8	31	26	36	23
TOTAL								

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is= 65%

SEMESTER III (W-19)								
GROUP	APP.	PASS	%	A %	B%	C%	D%	E%
BIO	87	65	75	16	41	30	15	-
MEB	64	45	71	20	35	27	14	
TOTAL			73	18	38	28	14	

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is= 84%

SEMESTER IV (S-19)								
GROUP	APP.	PASS	%	A %	B%	C%	D%	E%
BIO+MEB	156	123	83	26	48	20	3	-
TOTAL								

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is= 94%

SEMESTER V (W-19)								
GROUP	APP.	PASS	%	A %	B%	C%	D%	E%
BIO + MEB	147	114	82	17	50	28	5	-
TOTAL								

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is=95%

SEMESTER VI (S-19)								
GROUP	APP.	PASS	%	A %	B%	C%	D%	E%
BIO+MEB	145	116	73	23	38	26	11	-
TOTAL								

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is= 87 %

**Attainment table for the Academic session 2019-20**

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination (A+B+C)X100/(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I BOT	23	LEVEL-0
	B.Sc. SEM II BOT	65	LEVEL-1
	B.Sc. SEM III BOT	84	LEVEL-3
	B.Sc. SEM IV BOT	94	LEVEL-3
	B.Sc. SEM V BOT	95	LEVEL-3
	B.Sc. SEM VI BOT	87	LEVEL-3
M.Sc. Botany	M.Sc. Botany Sem I- Cell biology, cytology and genetics	8	LEVEL-0
	M.Sc. Botany Sem I- Resource utilization and conservation	67	LEVEL-2
	M.Sc. Botany Sem I- Biology and diversity of algae and bryophytes	63	LEVEL-2
	M.Sc. Botany Sem I- Plant development and reproduction	46	LEVEL-0
	M.Sc. Botany Sem II- Cytogenetics and molecular biology	100	LEVEL-3
	M.Sc. Botany Sem II- Biology and diversity of microbes and fungi	100	LEVEL-3
	M.Sc. Botany Sem II- Plant Physiology	100	LEVEL-3
	M.Sc. Botany Sem II- Plant Metabolism	100	LEVEL-3
	M.Sc. Botany Sem III- Biology and diversity of Pteridophytes and Gymnosperms	78	LEVEL-3
	M.Sc. Botany Sem III- Taxonomy of Angiosperms	48	LEVEL-0
	M.Sc. Botany Sem III- Applied mycology - I	96	LEVEL-3
	M.Sc. Botany Sem III- Plant Pathology – II	96	LEVEL-3
	M.Sc. Botany Sem IV- Plant Ecology	100	LEVEL-3
	M.Sc. Botany Sem IV- Environmental Ecology	100	LEVEL-3
	M.Sc. Botany Sem IV- Plant Biotechnology	100	LEVEL-3
	M.Sc. Botany Sem IV- Genetic Engineering	100	LEVEL-3

### Evaluation of attainment of COs for 2019-20

Programme Name - M.Sc.

Course Name :( Bioinformatics)

#### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -1-4 (2019-20)								
GROUP	APP.	PASS	%	A	B	C	D	E
M.Sc. I- Sem I	21	18	85.71	0	16	5	0	0
M.Sc. I- Sem III	21	19	90.47	0	17	4	0	0
M.Sc. I- Sem II	22	17	77.27	2	16	3	0	1
M.Sc. I- Sem IV	20	10	50	1	14	2	3	0
Total	84	64		3	63	14	3	1

Sem I

$$A+B+C = 0+16+5 = 21$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

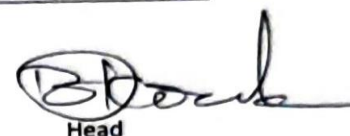
$$= 21 \times 100 / 21 = 100\%$$

#### Attainment table for the Academic session 2019-20

Programme	Course	% of enrolled students those have scored $\geq 50\%$ marks in final examination(A+B+C) X100/(appeared students)	COs Attainment Level as per benchmark
M.Sc. Bioinformatics	M.Sc. Bioinformatics-Sem I- Mathematics and Biostatistics	86	LEVEL-3
	M.Sc. Bioinformatics-Sem I-Cell and Molecular Biology	86	LEVEL-3
	M.Sc. Bioinformatics-Sem I- Computer for Biologists	100	LEVEL-3
	M.Sc. Bioinformatics-Sem I- Introduction to Bioinformatics	100	LEVEL-3
	M.Sc. Bioinformatics-Sem II- Biochemistry and Biophysics	95	LEVEL-3
	M.Sc. Bioinformatics-Sem II- Genomics	91	LEVEL-3
	M.Sc. Bioinformatics-Sem II- Biological Database Management system	86	LEVEL-3
	M.Sc. Bioinformatics-Sem II- Techniques in Bioinformatics	82	LEVEL-3
	M.Sc. Bioinformatics-Sem III- System Biology	100	LEVEL-3
	M.Sc. Bioinformatics-Sem III- Proteomics	90	LEVEL-3
	M.Sc. Bioinformatics-Sem III- Bio Programming	100	LEVEL-3
	M.Sc. Bioinformatics-Sem III- Parasite Informatics	100	LEVEL-3



	<b>M.Sc. Bioinformatics-Sem IV- Molecular Modeling and drug Design</b>	<b>90</b>	<b>LEVEL-3</b>
	<b>M.Sc. Bioinformatics-Sem IV-Chemo -Informatics</b>	<b>90</b>	<b>LEVEL-3</b>
	<b>M.Sc. Bioinformatics-Sem IV-Bio- Programming- II</b>	<b>50</b>	<b>LEVEL-1</b>
	<b>M.Sc. Bioinformatics-Sem IV- Research Methodology, IPR and Bioethics</b>	<b>80</b>	<b>LEVEL-3</b>



Head

Department of Botany  
**Dr. B. K. Dorkar**  
Asso. Prof. & Head  
Deptt. of Botany  
Shri Shivaji Science College,  
Amravati-444603



## Department of Chemistry

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF CHEMISTRY

ACADEMIC SESSION 2019-20

**EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)**

1. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
2. Direct assessment includes semester end examination conducted by the university.
3. Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
4. The degree of attainment of COs/PSOs are expressed in terms o level of attainment

• **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

• **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination

**Programme Name - B.Sc.****Course Name : B.Sc. SEM I ( Chemistry ) W-19****Result Analysis of Semester End Examination**

Semester -I				
GROUP	APP.	PASS	%	% of student who scored more than 50%
PCM	66	49	74.24	74.24
PHG	22	09	40.90	40.90
BIO	99	54	54.54	54.54
BTB	25	20	80	80
BTZ	25	20	80	80
CEB	24	14	58.33	58.33
CEZ	22	09	40.90	40.90
MBB	23	17	60.86	60.86
MBZ	20	15	75	75
TOTAL	326	207	62.75	62.75

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$207 \times 100 / 326 = 62.75\% \text{ Level 3}$$

**Programme Name - B.Sc.****Course Name : B.Sc II. SEM III ( Chemistry ) W-19****Result Analysis of Semester III Examination**

Semester -III				
GROUP	APP.	PASS	%	% of student who scored more than 50%
PCM	65	64	98.46	98.46
PHG	16	16	100	100
BIO	81	60	74.07	74.07
BTB	21	15	71.42	71.42
BTZ	18	16	88.88	88.88
CEB	19	17	89.47	89.47
CEZ	18	16	88.88	88.88
MBB	24	22	91.66	91.66
MBZ	24	21	87.75	87.75
TOTAL	286	247	87.84	87.84

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$247 \times 100 / 286 = 87.84 \% \text{ Level 3}$$

**Programme Name - B.Sc.****Course Name : B.Sc III. SEM V ( Chemistry ) W-19****Result Analysis of Semester III Examination**

Semester -III				
GROUP	APP.	PASS	%	% of student who scored more than 50%
PCM	66	63	95.45	95.45
PHG	20	16	78.94	78.94
BIO	87	67	77.00	77.00
BTB	19	16	84.21	84.21
BTZ	25	20	80	80
CEB	18	13	72.22	72.22
CEZ	14	11	78.54	78.54
MBB	19	18	94.73	94.73
MBZ	20	17	85	85
TOTAL	288	241	82.89	82.89

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$241 \times 100 / 288 = 82.89 \% \text{ Level 3}$$

**Programme Name - B.Sc.****Course Name : B.Sc. SEM II ( Chemistry ) S-20****Result Analysis of Semester End Examination**

Semester -I				
GROUP	APP.	PASS	%	% of student who scored more than 50%
PCM	66	66	100	100
PHG	24	24	100	100
BIO	100	100	100	100
BTB	24	24	100	100
BTZ	24	24	100	100
CEB	24	24	100	100
CEZ	27	27	100	100
MBB	25	25	100	100
MBZ	24	24	100	100
TOTAL	338	338	100	100

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$338 \times 100 / 338 = 100\% \text{ Level 3}$$

**Programme Name - B.Sc.****Course Name : B.Sc. II SEM IV ( Chemistry ) S-20****Result Analysis of Semester End Examination**

Semester -I				
GROUP	APP.	PASS	%	% of student who scored more than 50%
PCM	70	69	98.67	98.67
PHG	19	19	100	100
BIO	89	89	100	100
BTB	21	20	95.23	95.23
BTZ	20	20	100	100
CEB	17	17	100	100
CEZ	22	22	100	100
MBB	24	24	100	100
MBZ	24	24	100	100
TOTAL	306	304	99.32	99.32

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$304 \times 100 / 306 = 99.32\% \text{ Level 3}$$



**Programme Name - B.Sc.****Course Name : B.Sc. III SEM V I( Chemistry ) S-20****Result Analysis of Semester End Examination**

Semester -VI				
GROUP	APP.	PASS	%	% of student who scored more than 50%
PCM	66	66	100	100
PHG	20	20	100	100
BIO	89	89	100	100
BTB	19	19	100	100
BTZ	25	25	100	100
CEB	18	18	100	100
CEZ	14	14	100	100
MBB	20	18	90	90
MBZ	20	20	100	100
TOTAL	290	288	99.31	99.31

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$288 \times 100 / 290 = 99.31\% \text{ Level 3}$$

  
Head of the Department  
CHEMISTRY

## Department of Computer Science

Shri Shivaji Science College, Amravati

Department of Computer Science

ACADEMIC SESSION 2019-20

Programme Name - B.Sc.

Course Name : B.Sc. Computer Science

### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER 1								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM	48	40	83.33	07	9	16	8	
CMP	25	24	96	02	16	5	6	
TOTAL	73	64	87.67	09	25	21	14	

$$A+B+C = 9+25+21 = 55$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is  
 $= 55 \times 100 / 73 = 75\%$

SEMESTER 2								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM	49	49	100	31	16	1	1	
CMP	25	25	100	23	2	0	0	
TOTAL	74	74	100	54	18	1	1	

$54+18+1=73$  Therefore % of students those have scored  $\geq 50\%$  marks in final examination is  $= 98.64\%$

SEMESTER 3								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM	46	45	97.83	7	31	8	1	
CMP	22	19	86.36	10	7	2	2	
TOTAL	68	64	94	17	38	10	3	

$17+38+10=65$  Therefore % of students those have scored  $\geq 50\%$  marks in final examination is  $= 95.58\%$

SEMESTER 4								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM	46	46	100	46	0	0	0	
CMP	22	22	100	18	4	0	0	
TOTAL	68	68	100	64	4	0	0	

$4+4+0=68$  Therefore % of students those have scored  $\geq 50\%$  marks in final examination is  $= 100\%$



SEMESTER 5								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM	44	43	97.73	3	29	11	1	
CMP	26	25	96.15	0	19	6	1	
TOTAL	70	68	97	3	48	17	2	

3+48+17=68 Therefore % of students those have scored  $\geq 50$  % marks in final examination is=97.17%

SEMESTER 6								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM	44	44	100	42	2			
CMP	26	26	100	24	2			
TOTAL	70	70	100	66	4	0	0	

66+4+0=70 Therefore % of students those have scored  $\geq 50$  % marks in final examination is=100%

**Course Name : B.Sc. Computer Application (Voc.)**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER 1								
GROUP	APP.	PASS	%	A	B	C	D	E
CAM	19	11	63.15	0	5	6	8	
CAP	19	9	47.37	0	4	8	7	
CAS	15	9	60	0	1	8	6	
TOTAL	53	29	54.71	0	10	22	21	

A+B+C = 0+10+22 =32 Therefore % of students those have scored  $\geq 50$  % marks in final examination is =60.37 %

SEMESTER 2								
GROUP	APP.	PASS	%	A	B	C	D	E
CAM	19	19	100.00	6	13	0	0	
CAP	19	19	100.00	8	11	0	0	
CAS	14	14	100.00	9	5	0	0	
TOTAL	52	52	100	23	29	0	0	

A+B+C = 23+29+0 =52 Therefore % of students those have scored  $\geq 50$  % marks in final examination is = 100 %

SEMESTER 3								
GROUP	APP.	PASS	%	A	B	C	D	E
CAM	21	14	66.67	1	3	9		
CAP	14	8	57.14	0	3	5		
CAS	22	7	31.82	0	3	4		
TOTAL	57	29	50.87	1	9	18		

$A+B+C = 1+9+18 = 28$  Therefore % of students those have scored  $\geq 50$  % marks in final examination is = 49.12 %

SEMESTER 4								
GROUP	APP.	PASS	%	A	B	C	D	E
CAM	22	22	100	15	4	0		
CAP	15	15	100	9	5	0		
CAS	20	20	100	9	13	0		
TOTAL	57	57	100	33	22	0		

$A+B+C = 33+22+00 = 55$  Therefore % of students those have scored  $\geq 50$  % marks in final examination is = 96.49 %

SEMESTER 5								
GROUP	APP.	PASS	%	A	B	C	D	E
CAM	23	19	82.61	0	16	7	1	
CAP	21	15	71.43	0	14	4	3	
CAS	22	19	86.36	2	16	3	1	
TOTAL	66	53	80	2	46	14	5	

$A+B+C = 2+46+14 = 62$  Therefore % of students those have scored  $\geq 50$  % marks in final examination is = 93.93 %

SEMESTER 6								
GROUP	APP.	PASS	%	A	B	C	D	E
CAM	46	23	100	23	0	0	0	
CAP	20	20	100	20	0	0	0	
CAS	23	26	100	26	0	0	0	
TOTAL	69	69	100	69	0	0	0	

$A+B+C = 69$  Therefore % of students those have scored  $\geq 50$  % marks in final examination is = 100 %



**Programme Name - M.Sc.****Course Name : M.Sc. Computer Software****SEMESTER 1**

GROUP	APP.	PASS	%	A	B	C	D	E
Adv.Java	25	19	76	0	3	2	14	
SE&ST	25	19	76	0	0	10	9	
.Net Tech using ASP	25	18	72	0	0	4	14	
Computer Network	25	20	80	0	1	5	14	

**SEMESTER 2**

GROUP	APP.	PASS	%	A	B	C	D	E
Prog. In C#	25	25	100	19	5	0	1	
DOS	25	25	100	21	3	0	1	
ADBMS	25	25	100	23	1	0	1	
FOSS	25	25	100	17	7	0	1	

**SEMESTER 3**

GROUP	APP.	PASS	%	A	B	C	D	E
Data Ware House & Data Mining	29	16	55.17	1	4	7	4	
PHP Prog.	29	29	100	5	13	5	6	
Mob.Comp. with Android	29	19	65.52	0	1	4	14	
Compiler Construction	29	28	96.55	1	12	9	6	

**SEMESTER 4**

GROUP	APP.	PASS	%	A	B	C	D	E
Cyber Security & D.F.	29	29	100	29	0	0	0	
Soft Computing	29	29	100	29	0	0	0	
Web Content Management System	29	29	100	29	0	0	0	
Cloud Computing	29	29	100	29	0	0	0	




**Attainment table for the Academic session 2019-20**

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination (A+B+C)X100/(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I Comp. Sci.	75	LEVEL-3
	B.Sc. SEM II Comp. Sci.	98.64	LEVEL-3
	B.Sc. SEM III Comp. Sci.	95.58	LEVEL-3
	B.Sc. SEM IV Comp. Sci.	100	LEVEL-3
	B.Sc. SEM V Comp. Sci.	97.17	LEVEL-3
	B.Sc. SEM VI Comp. Sci.	100	LEVEL-3
	B.Sc. SEM I C.A. Voc.	60.37	LEVEL-2
	B.Sc. SEM II C.A. Voc.	100	LEVEL-3
	B.Sc. SEM III C.A. Voc..	49.12	LEVEL-0
	B.Sc. SEM IV C.A. Voc..	96.49	LEVEL-3
	B.Sc. SEM V C.A. Voc.	93.93	LEVEL-3
	B.Sc. SEM VI C.A. Voc.	100	LEVEL-3
B.C.A.	B.C.A. SEM I C.F.	60.30	LEVEL-2
	B.C.A. SEM I C Lang.	63.84	LEVEL-2
	B.C.A. SEM I D.T.	36.15	LEVEL-0
	B.C.A. SEM I N.M.	56.58	LEVEL-1
	B.C.A. SEM I D.M	50.38	LEVEL-1
	B.C.A. SEM I CS	48.48	LEVEL-0
	B.C.A. SEM II OS	82.96	LEVEL-3
	B.C.A. SEM II C-Prog.	82.96	LEVEL-3
	B.C.A. SEM II DT-I	82.96	LEVEL-3
	B.C.A. SEM II NM	82.96	LEVEL-3
	B.C.A. SEM II DM	82.96	LEVEL-3
	B.C.A. SEM II CS	82.96	LEVEL-3
	B.C.A. SEM III DS	58	LEVEL-1
	B.C.A. SEM III OOP	39	LEVEL-0
	B.C.A. SEM III DBMS	58	LEVEL-1
	B.C.A. SEM III AOS	64	LEVEL-2
	B.C.A. SEM III Electronics	32	LEVEL-0
	B.C.A. SEM IV SAD/MIS	84.55	LEVEL-3
	B.C.A. SEM IV VB	84.55	LEVEL-3
	B.C.A. SEM IV WAD	84.55	LEVEL-3
	B.C.A. SEM IV Networking	84.55	LEVEL-3
	B.C.A. SEM IV Ad. Micro.	84.55	LEVEL-3
	B.C.A. SEM V Core Java	72.60	LEVEL-3
	B.C.A. SEM V Network Security	83.78	LEVEL-3
	B.C.A. SEM V Software Engineering	89.19	LEVEL-3
	B.C.A. SEM V Computer Graphics	90.54	LEVEL-3
	B.C.A. SEM V E commerce	84.93	LEVEL-3
	B.C.A. SEM VI .Net	100	LEVEL-3
	B.C.A. SEM VI CST	100	LEVEL-3
	B.C.A. SEM VI ADBMS	100	LEVEL-3
	B.C.A. SEM VI MMT	100	LEVEL-3



Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination (A+B+C)X100/(appeared students)	COs Attainment Level as per benchmark
	B.C.A. SEM VI Soft. Testing	100	LEVEL-3
M.Sc. Computer Soft	M.Sc. Computer Soft. Sem I- Adv.Java	76	LEVEL-3
	M.Sc. Computer Soft. Sem I- SE&ST	76	LEVEL-3
	M.Sc. Computer Soft. Sem I .Net Tech using ASP	72	LEVEL-3
	M.Sc. Computer Soft. Sem I- Computer Network	80	LEVEL-3
	M.Sc. Computer Soft. Sem II- Prog. In C#	100	LEVEL-3
	M.Sc. Computer Soft. Sem II - DOS	100	LEVEL-3
	M.Sc. Computer Soft. Sem II - ADBMS	100	LEVEL-3
	M.Sc. Computer Soft. Sem II - FOSS	100	LEVEL-3
	M.Sc. Computer Soft. Sem III- Data Ware House & Data Mining	55.17	LEVEL-1
	M.Sc. Computer Soft. Sem III PHP Prog	100	LEVEL-3
	M.Sc. Computer Soft. Sem III - Mob.Comp. with Android	65.52	LEVEL-2
	M.Sc. Computer Soft. Sem III Compiler Construction	96.55	LEVEL-3
	M.Sc. Computer Soft. Sem IV Cyber Security & D.F.	100	LEVEL-3
	M.Sc. Computer Soft. Sem IV Soft Computing	100	LEVEL-3
	M.Sc. Computer Soft. Sem IV Web Content Management System	100	LEVEL-3
	M.Sc. Computer Soft. Sem IV - Cloud Computing	100	LEVEL-3

  
 Head  
 Dept. of Computer Science  
 Shri Shivaji Science College  
 Amravati.



## Department of Environmental Science

### DEPARTMENT OF ENVIRONMENTAL SCIENCE

ACADEMIC SESSION 2019-20

Programme Name - B.Sc.

#### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER I								
GROUP	APP.	PASS	%	A	B	C	D	E
CEB	24	19	79.16	2	13	4		
CEZ	26	22	84.61	5	12	5		
TOTAL	50	41	82	7	25	9		

$$A+B+C = 7+25+9 = 41$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 41 \times 100 / 50 = 82\%$$

SEMESTER II								
GROUP	APP.	PASS	%	A	B	C	D	E
CEB	24	23	95.83	17	5	1		
CEZ	26	26	100	24	2			
TOTAL	50	49	98	41	7	1		

$$A+B+C = 41+7+1 = 49$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 49 \times 100 / 50 = 98\%$$

SEMESTER III								
GROUP	APP.	PASS	%	A	B	C	D	E
CEB	16	11	68.75	2	8	1		
CEZ	21	19	90.47	10	8	1		
TOTAL	37	30	81.08	12	16	2		

$$A+B+C = 12+16+2 = 30$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 30 \times 100 / 37 = 81.08\%$$

SEMESTER IV								
GROUP	APP.	PASS	%	A	B	C	D	E
CEB	16	16	100	14	2			
CEZ	22	21	95.2	20	1			
TOTAL	38	37	97.37	34	3			



$$A+B+C = 34+3 = 37$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is  
 $= 37 \times 100 / 38 = 97.37 \%$

SEMESTER V								
GROUP	APP.	PASS	%	A	B	C	D	E
CEB	19	18	94.73	7	8	3		
CEZ	14	13	92.85	7	6			
TOTAL	33	31	93.94	14	14	3		

$$A+B+C = 14+14+3 = 31$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is  
 $= 31 \times 100 / 33 = 93.94 \%$

SEMESTER VI								
GROUP	APP.	PASS	%	A	B	C	D	E
CEB	19	19	100	19				
CEZ	14	14	100	14				
TOTAL	33	33	100	33				


$$A+B+C = 33$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is  
 $= 33 \times 100 / 33 = 100 \%$

#### Attainment table for the Academic session 2019-20

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination (A+B+C)X100/(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I EVS	82	LEVEL-3
	B.Sc. SEM II EVS	98	LEVEL-3
	B.Sc. SEM III EVS	81.08	LEVEL-3
	B.Sc. SEM IV EVS	97.37	LEVEL-3
	B.Sc. SEM V EVS	93.94	LEVEL-3
	B.Sc. SEM VI EVS	100	LEVEL-3
M.Sc. Environmental Sci.	M.Sc. Environmental Sci. Sem I- Environmental Sci.-A Interdisciplinary Approach	66.66	LEVEL-2
	M.Sc. Environmental Sci. Sem I- Concepts Of Ecology & Biodiversity	95.83	LEVEL-3
	M.Sc. Physics Sem I- Environmental Chemistry	66.66	LEVEL-2
	M.Sc. Environmental Sci. Sem I- Geodynamics & Energy Resources	66.66	LEVEL-2
	M.Sc. Environmental Sci. Sem II-	100	LEVEL-3

	Bioinformatics In Environmental Analysis		
	M.Sc. Physics Sem II- Environmental Microbiology	100	LEVEL-3
	M.Sc. Environmental Sci. Sem II- Air & Noise Pollution	100	LEVEL-3
	M.Sc. Environmental Sci. Sem II- Water Pollution	100	LEVEL-3
	M.Sc. Environmental Sci. Sem III- Terrestrial Pollution	91.66	LEVEL-3
	M.Sc. Environmental Sci. Sem III- Remote Sensing, GIS & Computer Application	91.66	LEVEL-3
	M.Sc. Environmental Sci. Sem III- Environmental Impact Assessment & Audit	100	LEVEL-3
	M.Sc. Environmental Sci. Sem III- Pollution Control Technology	91.66	LEVEL-3
	M.Sc. Environmental Sci. Sem IV- Environmental Toxicology & Hazardous Waste Mngt	100	LEVEL-3
	M.Sc. Environmental Sci. Sem IV- Industrial Hygiene & Safety	100	LEVEL-3
	M.Sc. Environmental Sci. Sem IV- Nature Conservation & Environmental Mngt.	100	LEVEL-3
	M.Sc. Environmental Sci. Sem IV- Environmental Policies Legislation	100	LEVEL-3

  
**Dr. S.P. Ingole**  
 Head  
 Dept. Of Environmental Science  
 Shri Shivaji Science College,  
 Amravati.



## Department of Geology

### SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

#### DEPARTMENT OF GEOLOGY

#### ACADEMIC SESSION 2019-20

#### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

Programme Name - B.Sc.

Course Name : B.Sc. SEM I GEO

##### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER I								
GROUP	APP.	PASS	%	A	B	C	D	E
CAP	19	13	68.42%	-	5	7	4	3
PHG	21	14	66.66%	1	10	3	5	2
TOTAL	40	27	67.50%	1	15	10	9	5

$$A+B+C = 1+15+10 = 26$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 26 \times 100 / 40 = 65\%$$

Course Name : B.Sc. SEM II GEO

##### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER II								
GROUP	APP.	PASS	%	A	B	C	D	E
CAP	19	19	100%	6	13	0	0	0
PHG	24	24	100%	13	7	2	1	1
TOTAL	43	43	100%	19	20	2	1	1

$$A+B+C = 19+20+2 = 41$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 41 \times 100 / 43 = 95\%$$

**Course Name : B.Sc. SEM III GEO****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER III								
GROUP	APP.	PASS	%	A	B	C	D	E
CAP	14	10	71.42%	-	4	6	1	3
PHG	16	15	93.75	5	4	6	1	-
TOTAL	30	25	83.33%	5	8	12	2	3

$$A+B+C = 5+8+12 = 25$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 25 \times 100 / 30 = 83\%$$

**Course Name : B.Sc. SEM IV GEO****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER IV								
GROUP	APP.	PASS	%	A	B	C	D	E
CAP	14	14	100%	6	8	-	-	-
PHG	19	19	100%	11	5	3	-	-
TOTAL	33	33	100%	17	13	3	-	-

$$A+B+C = 17+13+3 = 33$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 33 \times 100 / 33 = 100\%$$

**Course Name : B.Sc. SEM V GEO****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER V								
GROUP	APP.	PASS	%	A	B	C	D	E
CAP	21	17	80.95%	7	9	2	1	2
PHG	17	13	76.47	4	7	3	2	1
TOTAL	38	30	78.94	11	16	5	3	3

$$A+B+C = 11+16+5 = 32$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 32 \times 100 / 38 = 84\%$$

Course Name : B.Sc. SEM VI GEO

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER VI								
GROUP	APP.	PASS	%	A	B	C	D	E
CAP	21	21	100%	21	-	-	-	-
PHG	20	20	100%	20	-	-	-	-
TOTAL	41	41	100%	41	-	-	-	-

$$A+B+C = 41+0+0 = 41$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

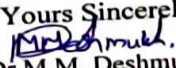
$$= 41 \times 100 / 41 = 100\%$$

**Attainment table for the Academic session 2019-20**

Programme	Course	% of enrolled students those have scored $\geq 50\%$ marks in final examination (A+B+C)X100/(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I GEO	65%	LEVEL-2
	B.Sc. SEM II GEO	95 %	LEVEL-3
	B.Sc. SEM III GEO	83 %	LEVEL-3
	B.Sc. SEM IV GEO	100 %	LEVEL-3
	B.Sc. SEM V GEO	84 %	LEVEL-3
	B.Sc. SEM VI GEO	100 %	LEVEL-3

Date:5/1/2021

Place: Amravati

Yours Sincerely  
  
 Dr.M.M. Deshmukh  
 Head & Assistant Professor  
 Shri. Shivaji Science College,  
 Asst. Professor & Head  
 Dept. of Geology  
 Shri Shivaji Science College



## Department of Mathematics

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF MATHEMATICS

ACADEMIC SESSION 2019-20

### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

- The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
- Direct assessment includes semester end examination conducted by the university.
- Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
- The degree of attainment of COs/PSOs are expressed in terms of level of attainment

- The benchmarks defined for measurement of attainment levels for UG are-

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50\%$ marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50\%$ marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50\%$ marks in final examination

- The benchmarks defined for measurement of attainment levels for PG are-

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40\%$ marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40\%$ marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40\%$ marks in final examination

Programme Name - B.Sc.

Course Name : B.Sc. SEM I MATHEMATICS

#### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER 1								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	65	56	86.15	7	13	12	24	9
CSM	48	40	83.33	7	9	10	14	8
CMP	24	23	95.83	4	5	5	9	1
CAM	18	11	61.11	0	1	1	9	7
CAS	15	11	73.33	1	1	2	7	4
TOTAL	170	141	82.94	19	29	30	63	29

$$A+B+C = 19+29+30=78$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is  
 $= 78 \times 100 / 170 = 45.88 \%$

**Course Name : B.Sc. SEM II MATHEMATICS**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER II								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	67	67	100	58	7	2	0	0
CSM	49	49	100	40	8	1	0	0
CMP	25	25	100	23	2	0	0	0
CAM	19	19	100	07	12	0	0	0
CAS	15	15	100	10	5	0	0	0
<b>TOTAL</b>	<b>175</b>	<b>175</b>	<b>100</b>	<b>138</b>	<b>34</b>	<b>3</b>	<b>0</b>	<b>0</b>

$$A+B+C = 138+34+3= 175$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is  
 $= 175 \times 100 / 175 = 100 \%$

**Course Name : B.Sc. SEM III MATHEMATICS**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER III								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	67	61	91.04	17	22	9	13	6
CSM	43	41	95.35	3	18	14	6	2
3CMP	22	21	95.45	9	7	1	4	1
CAM	21	16	76.19	1	4	5	6	5
CAS	18	11	61.11	0	2	2	7	7
<b>TTOTAL</b>	<b>171</b>	<b>150</b>	<b>87.72</b>	<b>30</b>	<b>53</b>	<b>31</b>	<b>36</b>	<b>21</b>

$$A+B+C = 30+53+31=114$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is  
 $114 \times 100 / 171 = 66.67 \%$



**Course Name : B.Sc. SEM I V MATHEMATICS****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER IV								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	68	68	100	65	5	3	0	0
CSM	46	46	100	46	0	0	0	0
CMP	22	22	100	20	2	0	0	0
CAM	21	21	100	17	4	0	0	0
CAS	22	22	100	13	9	0	0	0
TOTAL	179	179	100	156	20	3	0	0

$$A+B+C = 156+20+3=179$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 179 \times 100 / 179 = 100\%$$

**Course Name : B.Sc. SEM V MATHEMATICS****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER V								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	66	60	88.24	8	26	15	11	6
CSM	44	44	100	12	23	6	2	0
CMP	26	24	92.31	3	9	6	6	2
CAM	24	21	87.50	4	3	5	9	3
CAS	24	19	79.17	1	5	10	3	5
TOTAL	184	168	91.30	28	67	42	31	16

$$A+B+C = 28+67+42=137$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$137 \times 100 / 184 = 74.46\%$$



**Course Name : B.Sc. SEM VI MATHEMATICS**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER VI								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	66	66	100	66	0	0	0	0
CSM	44	44	100	44	0	0	0	0
CMP	26	26	100	26	0	0	0	0
CAM	24	24	100	24	0	0	0	0
CAS	24	24	100	24	0	0	0	0
TOTAL	184	184	100	184	0	0	0	0

$$A+B+C = 184+0+0=184$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 184 \times 100 / 184 = 100\%$$

**Attainment table for the Academic session 2019-20**

Programme	Course	% of enrolled students those have scored $\geq 50\%$ marks in final examination( $A+B+C$ ) $\times 100$ /(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I MATHEMATICS	45.88	LEVEL-0
	B.Sc. SEM II MATHEMATICS	100	LEVEL-3
	B.Sc. SEM III MATHEMATICS	66.67	LEVEL-2
	B.Sc. SEM IV MATHEMATICS	100	LEVEL-3
	B.Sc. SEM VMATHEMATICS	74.46	LEVEL-3
	B.Sc SEM VI MATHEMATICS	100	LEVEL-3

*umesh m. patil*

**UMESH M. PATIL**  
HEAD

Department of Mathematics  
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## Department of Microbiology

### SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

#### DEPARTMENT OF Microbiology

#### ACADEMIC SESSION 2019-20

#### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

- The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
- Direct assessment includes semester end examination conducted by the university.
- Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
- The degree of attainment of COs/PSOs are expressed in terms of level of attainment

- The benchmarks defined for measurement of attainment levels for UG are-

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

- The benchmarks defined for measurement of attainment levels for PG are-

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination

Programme Name - B.Sc.

Course Name : B.Sc. SEM I Microbiology

#### Result Analysis of Semester End Examination

No. of students those who have scored  $\geq 75\%$  marks

No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER- I								
GROUP	APP.	PASS	%	A	B	C	D	E
MBB	25	22	88	1	12	-	-	3
MBZ	25	22	100	2	11	7	2	-
TOTAL	47	44	93	3	33	7	2	3

$$B+C = 3+33=36$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$36 \times 100 / 47 = 76.6\%$$



**Course Name : B.Sc. SEM II Microbiology****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -II								
GROUP	APP.	PASS	%	A	B	C	D	E
MBB	25	25	100	21	4	-	-	-
MBZ	24	24	100	21	3	-	-	-
TOTAL	49	49	100	42	7	-	-	-

$$A+B+C = 42+7+0 = 49$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 49 \times 100 / 49 = 100\%$$

**Course Name : B.Sc. SEM III Microbiology****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -III								
GROUP	APP.	PASS	%	A	B	C	D	E
MBB	25	24	96	9	10	5	-	1
MBZ	24	20	83	9	7	4	-	4
TOTAL	49	44	89	18	17	9	-	5

$$A+B+C = 18+17+9=44$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 44 \times 100 / 49 = 89\%$$

**Course Name : B.Sc. SEM IV Microbiology****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -IV								
GROUP	APP.	PASS	%	A	B	C	D	E
MBB	25	25	100	25	-	-	-	-
MBZ	24	24	100	24	-	-	-	-
TOTAL	49	49	100	49	-	-	-	-

$$A+B+C = 49+0+0=49$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$49 \times 100 / 49 = 100\%$$



**Course Name : B.Sc. SEM V Microbiology**

**Result Analysis of Semester End Examination**

- A - No. of students those who have scored  $\geq 75\%$  marks  
 B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks  
 C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -V								
GROUP	APP.	PASS	%	A	B	C	D	E
MBB	20	20	100	14	6	-	-	-
MBZ	20	19	95	9	9	-	1	1
TOTAL	40	39	97	23	15	-	1	1

$$A+B+C = 23+15+0=38$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is  $= 38 \times 100 / 39 = 97\%$

**Course Name : B.Sc. SEM VI Microbiology**

**Result Analysis of Semester End Examination**

- A - No. of students those who have scored  $\geq 75\%$  marks  
 B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks  
 C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -VI								
GROUP	APP.	PASS	%	A	B	C	D	E
MBB	20	20	100	20	-	-	-	-
MBZ	20	20	100	20	-	-	-	-
TOTAL	40	40	100	40	-	-	-	-

$$A+B+C = 40+0+0=40$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 40 \times 100 / 40 = 100\%$$

**Attainment table for the Academic session 2019-20**

Programme	Course	% of enrolled students those have scored $\geq 50\%$ marks in final examination ( $A+B+C$ ) $\times 100 /$ (appeared students)	COs Attainment Level as per benchmark
Sc.	B.Sc. SEM I MCB	91	LEVEL-3
	B.Sc. SEM II MCB	100	LEVEL-3
	B.Sc. SEM III MCB	89	LEVEL-3
	B.Sc. SEM IV MCB	100	LEVEL-3
	B.Sc. SEM V MCB	97	LEVEL-3
	B.Sc. SEM VI MCB	100	LEVEL-3

*Chetesh*  
 Department of Microbiology  
 Shri Shivaji Science College  
 Ambur

## Department of Physics

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF PHYSICS

ACADEMIC SESSION 2019-20

### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

- The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
- Direct assessment includes semester end examination conducted by the university.
- Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
- The degree of attainment of COs/PSOs are expressed in terms of level of attainment

- **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50\%$ marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50\%$ marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50\%$ marks in final examination

- **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40\%$ marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40\%$ marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40\%$ marks in final examination



**Programme Name - B.Sc.**

**Course Name : B.Sc. SEM I PHY**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER I								
GROUP	APP.	PASS	%	A	B	C	D	E
CMP	24	23	96	4	10	8	1	1
CAP	19	5	26	0	0	2	3	14
CAM	19	7	37	0	2	2	3	12
PCM	65	55	85	15	22	12	6	10
PHG	23	11	48	0	4	3	4	12
TOTAL	150	101	67	19	38	27	17	49

$$A+B+C = 19+38+27 = 84$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 84 \times 100 / 150 = 56\%$$

**Course Name : B.Sc. SEM II PHY**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER II								
GROUP	APP.	PASS	%	A	B	C	D	E
CMP	25	25	100	23	2	0	0	0
CAP	19	19	100	9	10	0	0	0
CAM	19	19	100	7	12	0	0	0
PCM	63	63	100	50	11	2	0	0
PHG	24	24	100	13	9	2	0	0
TOTAL	150	150	100	102	44	4	0	0

$$A+B+C = 102+44+4 = 150$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 150 \times 100 / 150 = 100\%$$



**Course Name : B.Sc. SEM III PHY****Result Analysis of Semester End Examination**

- No. of students those who have scored  $\geq 75\%$  marks
- No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks
- No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER III								
GROUP	APP.	PASS	%	A	B	C	D	E
CMP	22	20	91	10	7	2	1	2
CAP	15	13	87	1	6	6	0	2
CAM	21	18	86	1	10	7	0	3
PCM	67	60	90	28	25	7	0	7
PHG	17	15	88	4	6	5	0	2
TOTAL	142	126	89	44	54	27	0	17

$$A+B+C = 44+54+27=125$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$125 \times 100 / 142 = 88.02\%$$

**Course Name : B.Sc. SEM IV PHY****Result Analysis of Semester End Examination**

- No. of students those who have scored  $\geq 75\%$  marks
- No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks
- No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER IV								
GROUP	APP.	PASS	%	A	B	C	D	E
CMP	22	22	100	19	3	0	0	0
CAP	15	15	100	10	5	0	0	0
CAM	21	21	100	16	5	0	0	0
PCM	69	69	100	62	3	3	1	0
PHG	18	18	100	15	0	3	0	0
TOTAL	145	145	100	122	16	6	1	0

$$A+B+C = 122+16+06=144$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$144 \times 100 / 145 = 99.31\%$$

**Course Name : B.Sc. SEM V PHY****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER V								
GROUP	APP.	PASS	%	A	B	C	D	E
CMP	26	23	88	3	11	9	0	3
CAP	22	11	50	2	6	3	0	11
CAM	24	14	58	1	10	3	0	10
PCM	66	60	91	28	23	9	0	6
PHG	18	11	61	1	5	5	0	7
TOTAL	156	119	76	35	55	29	0	37

$$A+B+C = 35+55+29=119$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 119 \times 100 / 156 = 76.28\%$$

**Course Name : B.Sc. SEM VI PHY****Result Analysis of Semester End Examination**- No. of students those who have scored  $\geq 75\%$  marks- No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks- No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER VI								
GROUP	APP.	PASS	%	A	B	C	D	E
CMP	26	26	100	26	0	0	0	0
CAP	22	22	100	22	0	0	0	0
CAM	24	24	100	24	0	0	0	0
PCM	65	65	100	65	0	0	0	0
PHG	18	18	100	18	0	0	0	0
TOTAL	155	155	100	155	0	0	0	0

$$B+C = 155$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$155 \times 100 / 155 = 100\%$$



**Programme Name - M.Sc.****Course Name : M.Sc. SEM I PHY****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

Paper	App	Pass	%	A	B	C	D	E	A+B+C+D	$\geq 40\%$
IPhy1	16	13	81.25	1	3	4	5	3	13	81.25
IPhy2	16	12	75	1	2	3	6	4	12	75
IPhy3	16	5	31.25	1	1	0	3	11	5	31.25
IPhy4	16	11	68.75	0	1	2	6	7	9	56.25

**Course Name : M.Sc. SEM II PHY****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

Paper	App	Pass	%	A	B	C	D	E	A+B+C+D	$\geq 40\%$
2Phy1	16	16	100	16	0	0	0	0	16	100
2Phy2	16	16	100	15	0	0	0	1	15	93.75
2Phy3	16	16	100	14	0	0	0	2	14	87.5
2Phy4	16	16	100	13	0	0	0	3	13	81.25

**Course Name : M.Sc. SEM III PHY****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

Paper	App	Pass	%	A	B	C	D	E	A+B+C+D	$\geq 40\%$
IPhy1	19	17	89.474	0	3	9	5	2	17	89.47
IPhy2	19	15	78.947	0	1	8	6	4	15	78.95
IPhy3	19	15	78.947	0	1	4	10	4	15	78.95
IPhy4	19	13	68.421	1	3	2	7	6	13	68.42



## Course Name : M.Sc. SEM IV PHY

### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

Paper	App	Pass	%	A	B	C	D	E	A+B+C+D	$\geq 40\%$
2Phy1	18	18	100	18	0	0	0	0	18	100
2Phy2	18	18	100	18	0	0	0	0	18	100
2Phy3	18	18	100	18	0	0	0	0	18	100
2Phy4	18	18	100	18	0	0	0	0	18	100

### Attainment table for the Academic session 2019-20

Programme	Course	% of enrolled students those have scored $\geq 50\%$ marks in final examination( $A+B+C$ ) $\times 100/(\text{appeared students})$	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I PHY	56	LEVEL-1
	B.Sc. SEM II PHY	100	LEVEL-3
	B.Sc. SEM III PHY	88.02	LEVEL-3
	B.Sc. SEM IV PHY	100	LEVEL-3
	B.Sc. SEM V PHY	76	LEVEL-3
	B.Sc. SEM VI PHY	100	LEVEL-3
Programme	Course	% of enrolled students those have scored $\geq 40\%$ marks in final examination( $A+B+C+D$ ) $\times 100/(\text{appeared students})$	COs Attainment Level as per benchmark
M.Sc. Physics	M.Sc. Physics Sem I- Mathematical Physics	81.25	LEVEL-3
	M.Sc. Physics Sem I- Classical Mechanics	75	LEVEL-3
	M.Sc. Physics Sem I- Quantum Mechanics -I	31.25	LEVEL-0
	M.Sc. Physics Sem I- Computational Methods & Programming	56.25	LEVEL-1
	M.Sc. Physics Sem II- Electrodynamics-I	100	LEVEL-3
	M.Sc. Physics Sem II- Quantum Mechanics -II	93.75	LEVEL-3
	M.Sc. Physics Sem II- Solid State Physics	87.5	LEVEL-3
	M.Sc. Physics Sem II- Network Theorem & Solid State Devices	81.25	LEVEL-3
	M.Sc. Physics Sem III- Electrodynamics-II	89.47	LEVEL-3
	M.Sc. Physics Sem III- Statistical Mechanics	78.95	LEVEL-3
	M.Sc. Physics Sem III- Atomic & Molecular Physics	78.95	LEVEL-3
	M.Sc. Physics Sem III- Condensed Matter Physics-I	68.42	LEVEL-2

	M.Sc. Physics Sem IV- Nuclear & Particle Physics	100	LEVEL-3
	M.Sc. Physics Sem IV- OPAMP & its Applications	100	LEVEL-3
	M.Sc. Physics Sem IV- Condensed Matter Physics-II	100	LEVEL-3
	M.Sc. Physics Sem IV- Nanoscience& Nanotechnology	100	LEVEL-3



**HEAD,**  
**Department of Physics,**  
**Shri Shivaji Science College,**  
**Amravati.**



## Department of Statistics

### SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

#### DEPARTMENT OF STATISTICS

#### ACADEMIC SESSION 2019-20

#### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

5. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
6. Direct assessment includes semester end examination conducted by the university.
7. Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
8. The degree of attainment of COs/PSOs are expressed in terms of level of attainment

• **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

• **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination



**Programme Name - B.Sc.**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER 1								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM+CAS	61	51	83.60	12	27	12	0	0
TOTAL	61	51	83.60	12	27	12	0	0

$$A+B+C = 12+27+12=51$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 51 \times 100 / 61 = 83.60\%$$

SEMESTER 2								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM+CAS	63	63	100	46	15	02	0	0
TOTAL	63	63	100	46	15	02	0	0

$$A+B+C = 46+15+2=63$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 46 \times 100 / 63 = 73.01\%$$

SEMESTER 3								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM+CAS	64	55	85.93	23	31	01	0	0
TOTAL	64	55	85.93	23	31	01	0	0

$$A+B+C = 23+31+01$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 55 \times 100 / 64 = 85.93\%$$

SEMESTER 4								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM+CAS	67	67	100	55	12	0	0	0
TOTAL	67	67	100	55	12	0	0	0

$$A+B+C = 55+12+0$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 67 \times 100 / 67 = 100\%$$

SEMESTER 5								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM+CAS	60	56	93.33	16	40	0	0	0
TOTAL	60	56	93.33	16	40	0	0	0

$$A+B+C = 16+40+0$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 56 \times 100 / 60 = 93.33\%$$

SEMESTER 6								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM+CAS	68	68	100	68	0	0	0	0
TOTAL	68	68	100	68	0	0	0	0

$$A+B+C = 68+0+0$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 68 \times 100 / 68 = 100\%$$

### Attainment table for the Academic session 2019-20

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination ( $A+B+C$ ) $\times 100$ /(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I STAT	83.60	LEVEL-3
	B.Sc. SEM II STAT	73.01	LEVEL-3
	B.Sc. SEM III STAT	85.93	LEVEL-3
	B.Sc. SEM IV STAT	100	LEVEL-3
	B.Sc. SEM V STAT	93.33	LEVEL-3
	B.Sc. SEM VI STAT	100	LEVEL-3

For Head  
Dept. of Statistics,  
Shri Shivaji Science College,  
AMRAVATI - 444603

## Department of Zoology

### SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

#### DEPARTMENT OF Zoology

#### ACADEMIC SESSION 2019-20

#### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

- The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
- Direct assessment includes semester end examination conducted by the university.
- Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
- The degree of attainment of COs/PSOs are expressed in terms of level of attainment

- **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

- **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination



**Programme Name - B.Sc.**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER 1								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	93	60	65	05	28	26	01	33
MEB	73	61	84	08	23	27	03	12
TOTAL	166	121	73	13	51	53	04	45

SEMESTER 2								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	100	100	100	100	00	00	00	00
MEB	75	75	100	75	00	00	00	00
TOTAL	175	175	100	175	00	00	00	00

SEMESTER 3								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	93	74	80	29	19	25	5	15
MEB	67	51	76	22	29	0	0	16
TOTAL	160	125	78	51	50	25	5	31

SEMESTER 4								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	90	90	100	80	10	0	0	0
MEB	66	66	100	64	2	0	0	0
TOTAL	156	156	100	154	14	0	0	0

SEMESTER 5								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	87	73	84	28	41	4	0	14
MEB	59	51	86	23	24	4	0	8
TOTAL	146	124	85	51	65	8	0	22

SEMESTER 6								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	89	89	100	89	00	00	00	00
MEB	59	59	100	59	00	00	00	00
TOTAL	148	148	100	148	00	00	00	00



MSc Zoology-2019-2020									
Sem	Paper	APP.	PASS	%	A	B	C	D	E
W-2019	I	17	10	58.82	00	01	06	03	07
I	II	17	16	94.11	00	05	05	05	01
I	III	21	20	95.23	01	06	02	10	01
I	IV	21	20	95.23	00	03	09	07	01
S-2019	I	18	14	77.77	00	01	06	07	04
II	II	18	14	77.77	00	03	03	08	04
II	III	18	15	83.33	00	00	08	07	03
II	IV	18	17	94.44	00	02	02	13	01
W-2019	I	14	13	92.85	01	04	03	05	01
III	II	14	13	92.85	00	03	06	04	01
III	III	14	13	92.85	00	02	08	03	01
III	IV	14	14	100	01	06	03	04	00
S-2019	I	19	18	94.73	01	06	06	04	01
IV	II	19	15	78.94	00	00	02	13	04
IV	III	19	14	73.68	00	03	05	06	05
IV	IV	19	14	73.68	00	03	04	07	05
S-2020	I	20	20	100	11	09	00	00	00
II	II	20	20	100	09	11	00	00	00
II	III	20	20	100	15	05	00	00	00
II	IV	20	20	100	12	08	00	00	00
S-2020	I	14	14	100	14	00	00	00	00
IV	II	14	14	100	14	00	00	00	00
IV	III	14	14	100	14	00	00	00	00
IV	IV	14	14	100	14	00	00	00	00

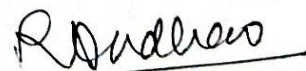
$$A+B+C = 19+38+27 = 84$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 84 \times 100 / 150 = 56 \%$$

**Attainment table for the Academic session 2019-20**

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination (A+B+C)X100/(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I ZOO	70.48	LEVEL-3
	B.Sc. SEM II ZOO	100	LEVEL-3
	B.Sc. SEM III ZOO	78.75	LEVEL-3
	B.Sc. SEM IV ZOO	100	LEVEL-3
	B.Sc. SEM V ZOO	85	LEVEL-3
	B.Sc. SEM VI ZOO	100	LEVEL-1
M.Sc. Zoology	M.Sc. ZOO Sem I- ANIMAL STRUCTURE AND FUNCTION (NON-CHORDATA)	41	LEVEL-1
	M.Sc. ZOO Sem I- ANIMAL STRUCTURE AND FUNCTION (CHORDATA)	41	LEVEL-1
	M.Sc. ZOO Sem I- GAMETE BIOLOGY	43	LEVEL-1
	M.Sc. ZOO Sem I- GENES AND DIFFERENTIATION	58	LEVEL-3
	M.Sc. ZOO Sem II- MOLECULAR CELL BIOLOGY	100	LEVEL-3
	M.Sc. ZOO Sem II- TOOLS AND TECHNIQUES IN BIOLOGY	100	LEVEL-3
	M.Sc. ZOO Sem II- ENDOCRINOLOGY	100	LEVEL-3
	M.Sc. ZOO Sem II- Ecology and ENVIRONMENT	100	LEVEL-1
	M.Sc. ZOO Sem III- MOLECULAR CYTOGENETICS- I	57	LEVEL-2
	M.Sc. ZOO Sem III- MOLECULAR CYTOGENETICS- II	64	LEVEL-3
	M.Sc. ZOO Sem III- Animal Physiology -I	71	LEVEL-3
	M.Sc. ZOO Sem III- Animal Physiology -II	71	LEVEL-3
	M.Sc. ZOO Sem IV- Biochemistry	100	LEVEL-3
	M.Sc. ZOO Sem IV- ENZYMOLOGY AND BIOSTATISTICS	100	LEVEL-3
	M.Sc. ZOO Sem IV- Animal Physiology -III	100	LEVEL-3
	M.Sc. ZOO Sem IV- Animal Physiology -IV	100	LEVEL-3



**Dr. R.G. Jadhao**  
Professor & Head  
Dept. Of Zoology  
Shri Shivaji Science College,  
Amravati.

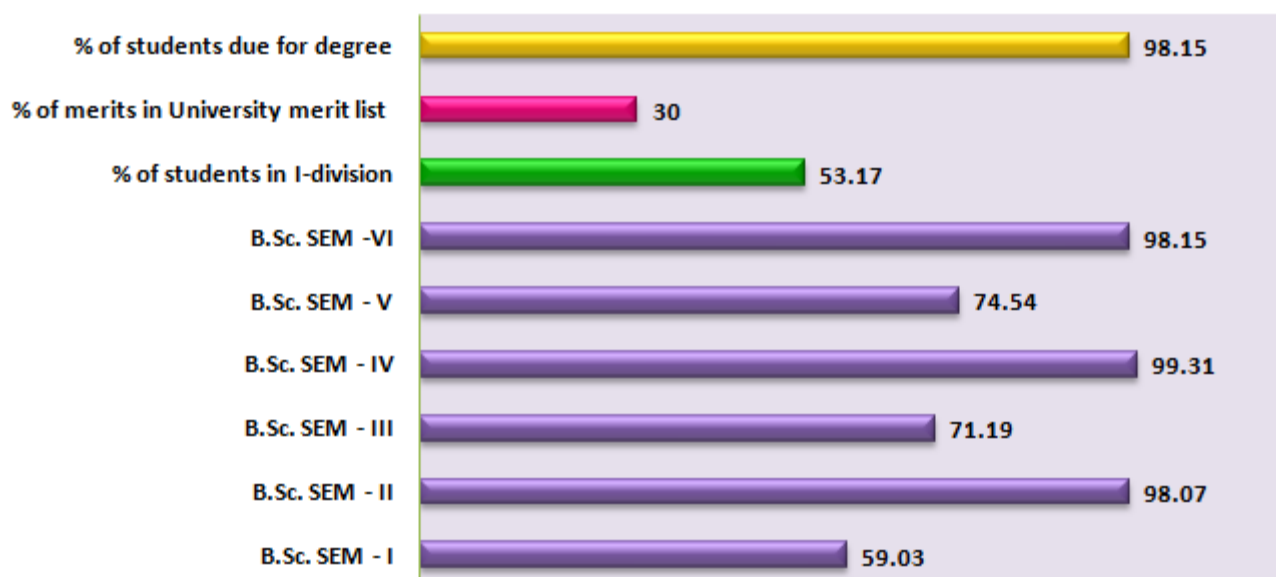


## Evaluation of Attainment of POs and PSOs (2019-20)

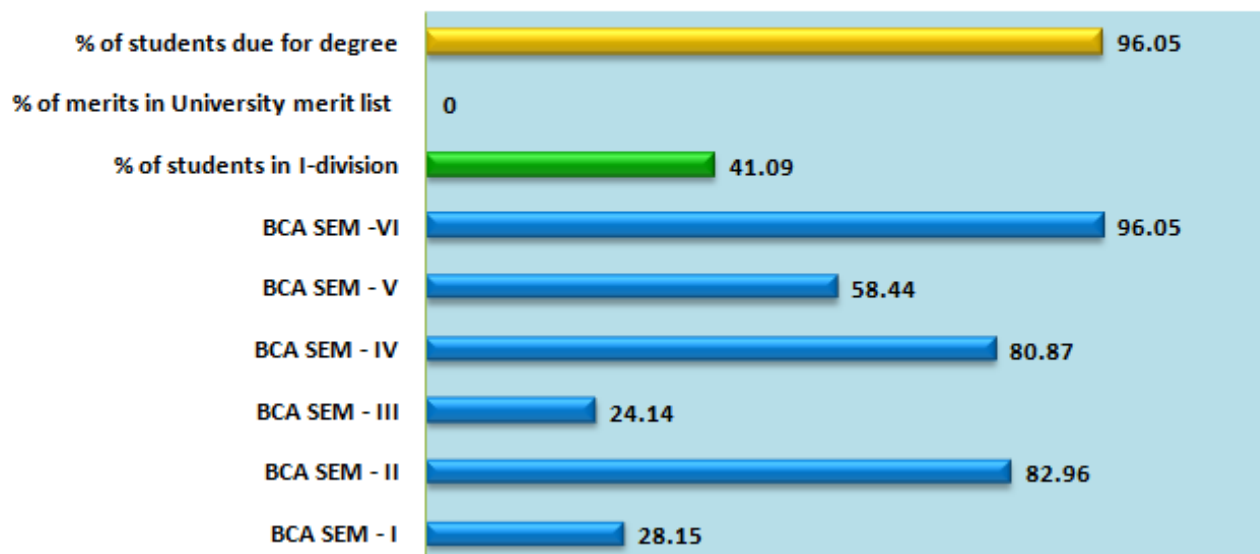
Programmes	Average attainment level of all courses of B.Sc. Programme	% of students scoring marks $\geq 60\%$ #	% of students due for degree	% of merit students in the merit list of the university	Level of attainment of PSOs and POs
B.Sc.	LEVEL-3 <i>(above 70 % of passed students have scored more than 50% marks)</i>	52.19	98	30	
B.C.A.	LEVEL-3	39.5	96	0	LEVEL-2
M.Sc. Botany	LEVEL-3	34.78	96	0	LEVEL-2
M.Sc. Bioinformatics	LEVEL-3	61.9	95	100	LEVEL-3
M.Sc. Chemistry	LEVEL-3	66.66	100	0	LEVEL-3
M.Sc. Computer Software	LEVEL-3	34.5	100	100	LEVEL-3
M.Sc. Environmental Science	LEVEL-3	16.6	100	100	LEVEL-2
M.Sc. Physics	LEVEL-3	50	100	0	LEVEL-3
M.Sc. Zoology	LEVEL-3	35.71	86	0	LEVEL-3

## Evaluation of Attainment of COs, PSOs and POs Through result Analysis (2019-20)

### Result analysis (2019-20) B.Sc. Programme

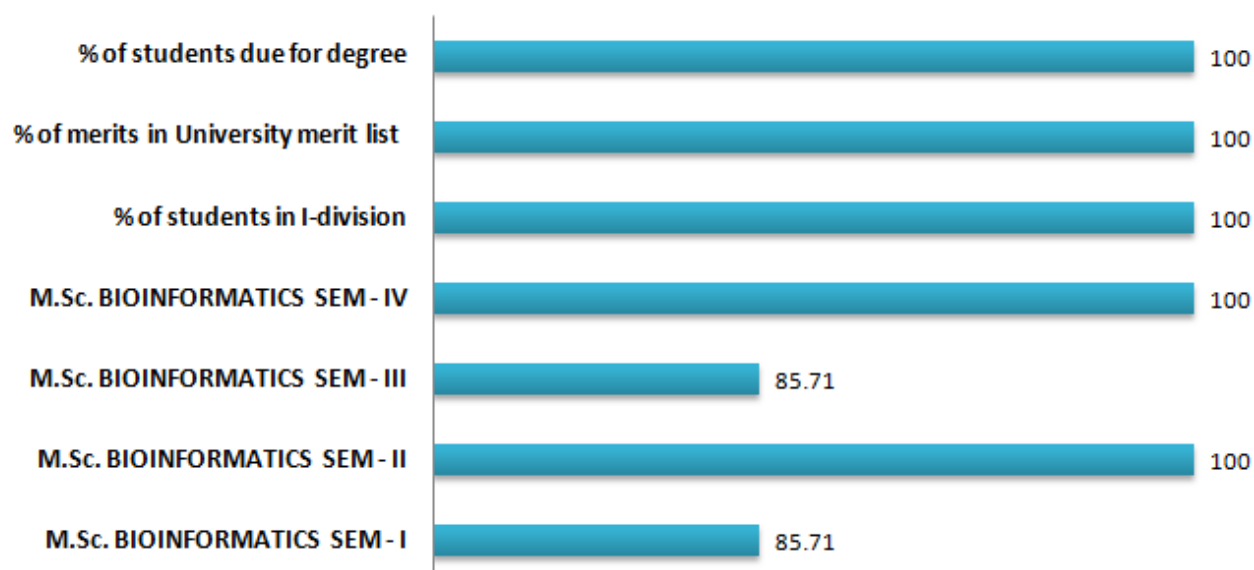


### Result analysis (2019-20) B.C.A. Programme



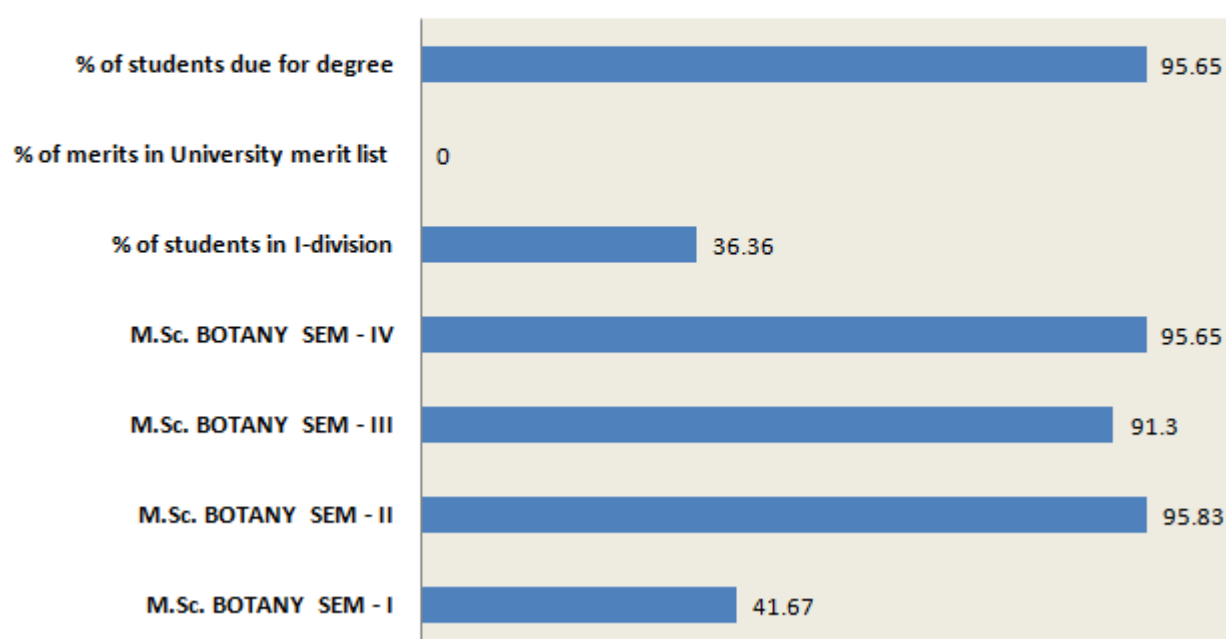
## Results analysis (2019-20)

### M.Sc Bioinformatics



## Results analysis (2019-20)

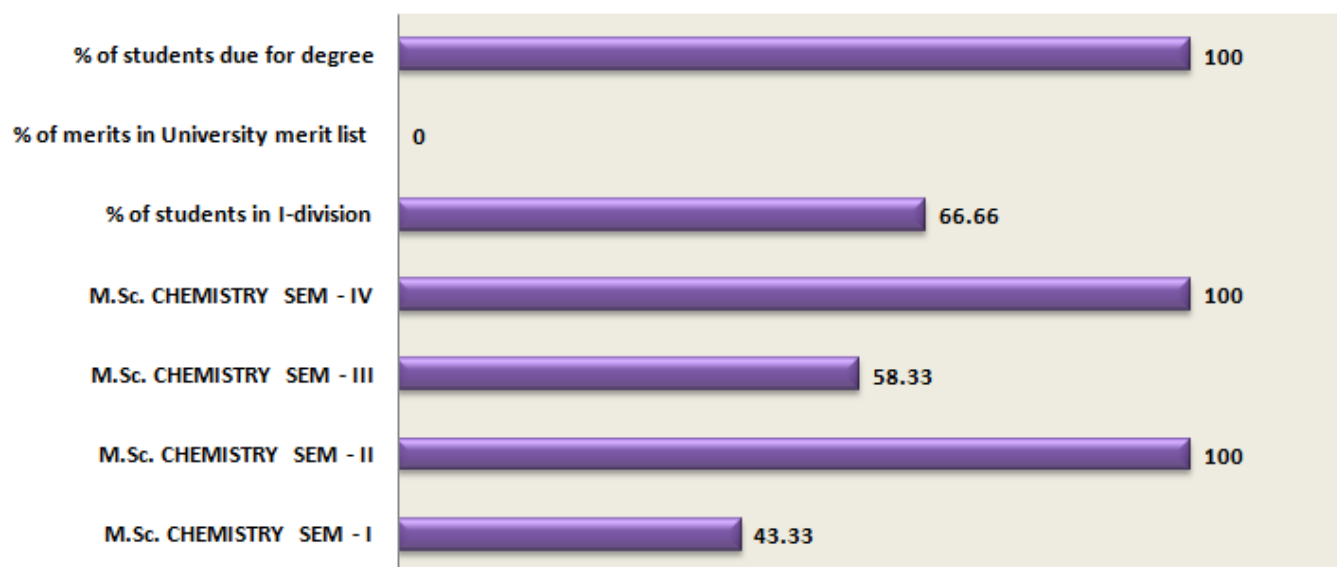
### M.Sc. Botany





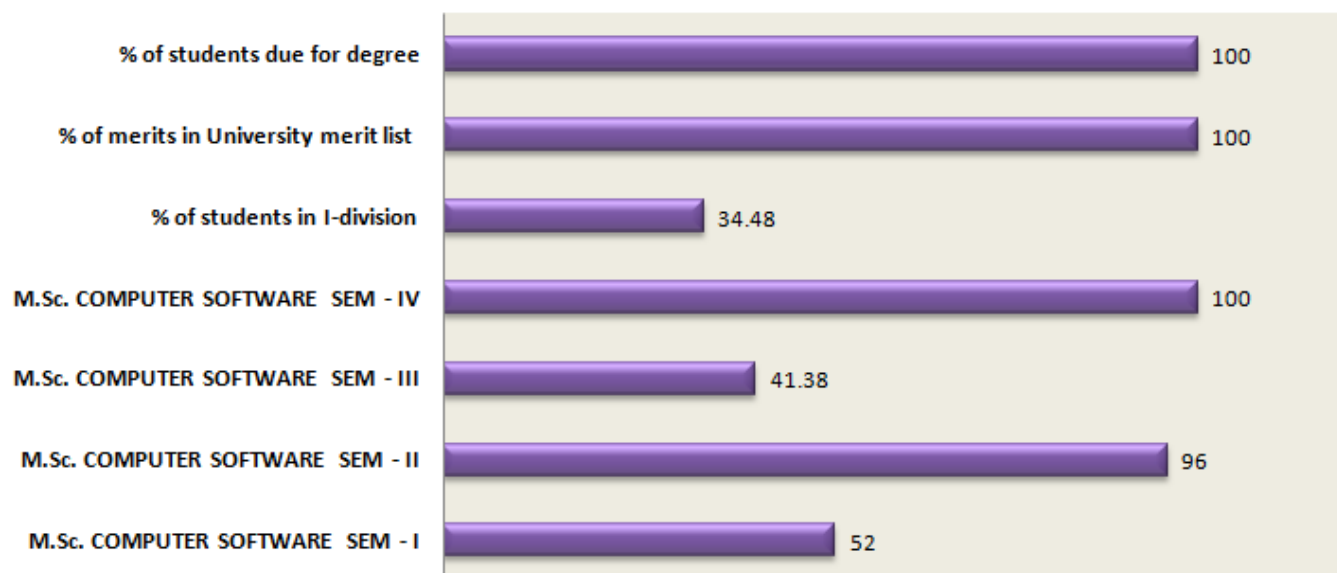
## Results analysis (2019-20)

### M.Sc. Chemistry



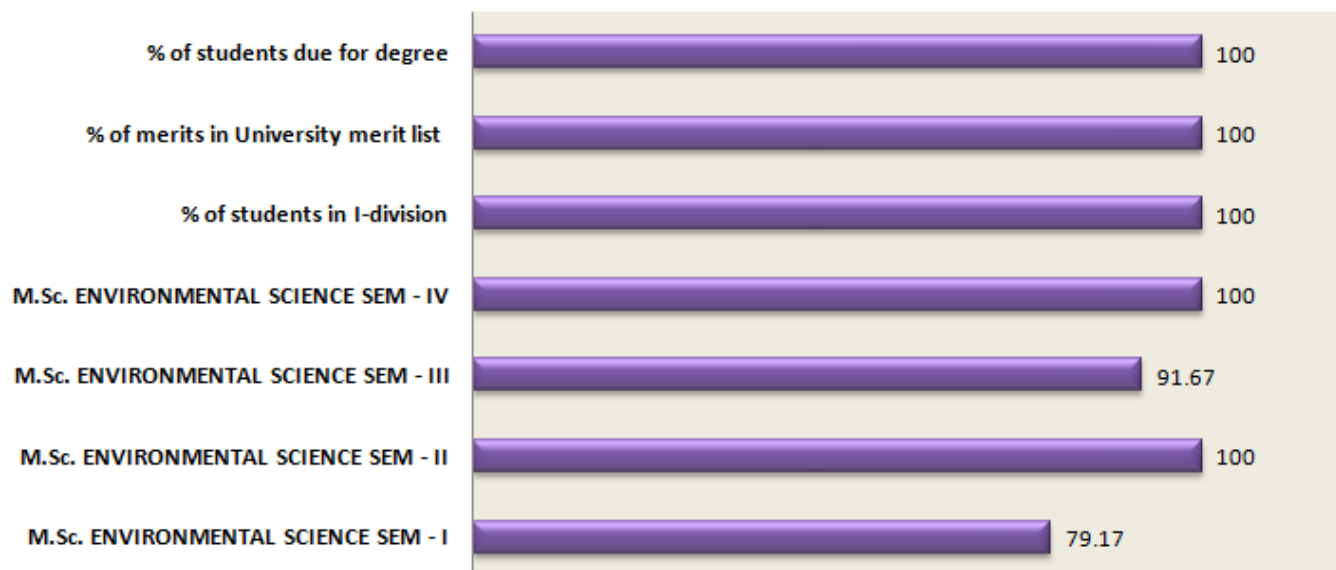
## Results analysis (2019-20)

### M.Sc. Computer Software



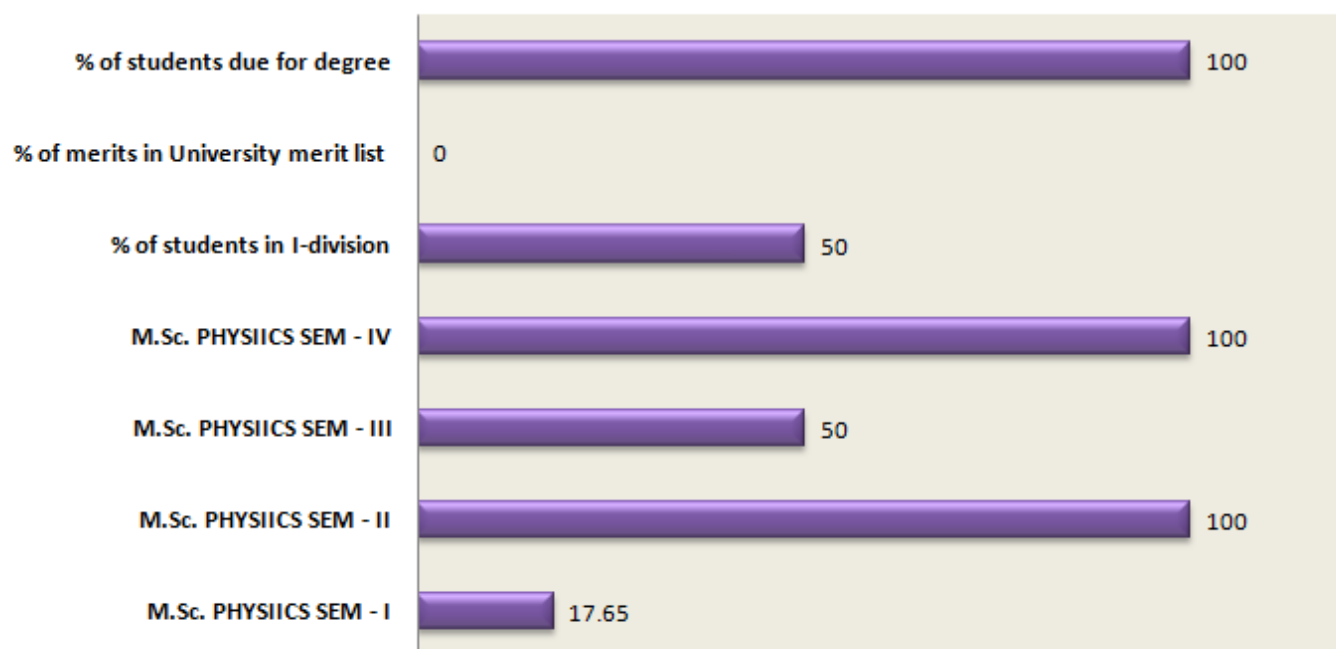
### Results analysis (2019-20)

#### M.Sc. Environmental Science



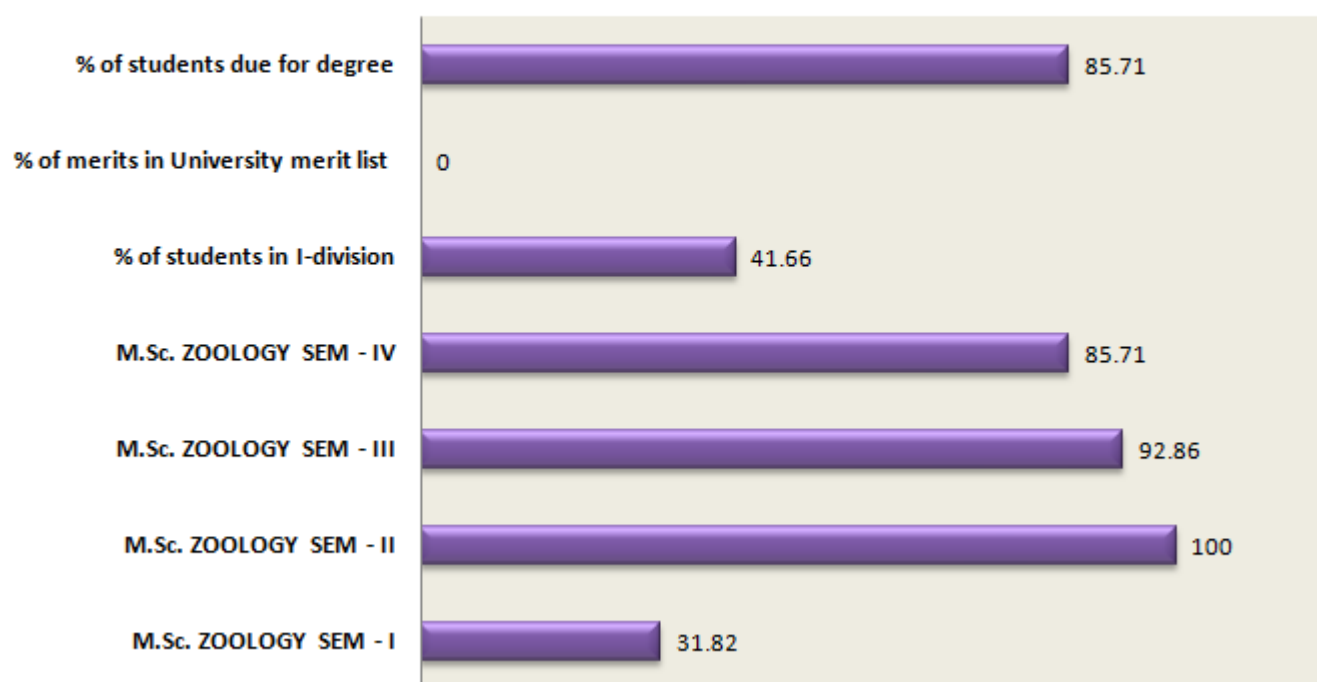
### Results analysis (2019-20)

#### M.Sc. Physics



## Results analysis (2019-20)

### M.Sc. Zoology





2018-19

## Department of Biotechnology

## SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

## DEPARTMENT OF BIOTECHNOLOGY

## ACADEMIC SESSION 2018-19

## EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.

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The degree of attainment of COs/PSOs are expressed in terms of level of attainment

**The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

**The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination

**Programme Name - B.Sc.**

**Course Name : B.Sc. SEM I Biotechnology**

**Analysis of Semester End Examination**

No. of students those who have scored  $\geq 75\%$  marks

No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER-I								
GROUP	APP.	PASS	%	A	B	C	D	E
BTB	25	22	88	9	4	6	1	2
BTZ	23	21	91	3	7	11	1	-
TOTAL	48	43	89	12	11	17	2	2

$$A+C = 12+11+17=40$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$40 \times 100 / 48 = 83\%$$

**Course Name : B.Sc. SEM II Biotechnology**

**Result Analysis of Semester End Examination**

No. of students those who have scored  $\geq 75\%$  marks

No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER-II								
GROUP	APP.	PASS	%	A	B	C	D	E
BTB	22	17	77	2	7	7	1	4
BTZ	22	18	81	-	6	12	-	4
TOTAL	44	35	79	2	13	19	1	8

$$A+B+C = 2+13+19= 34$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$34 \times 100 / 44 = 82\%$$

**Course Name : B.Sc. SEM III Biotechnology**

**Result Analysis of Semester End Examination**

- No. of students those who have scored  $\geq 75\%$  marks

- No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

- No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks



SEMESTER -III								
GROUP	APP.	PASS	%	A	B	C	D	E
BTB	20	20	100	4	12	4	-	-
BTZ	26	23	88	11	10	3	-	2
TOTAL	46	43	93	15	22	7	-	2

$$A+B+C = 15+22+7=44$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 44 \times 100 / 46 = 95\%$$

### Course Name : B.Sc. SEM IV Biotechnology

#### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -IV								
GROUP	APP.	PASS	%	A	B	C	D	E
BTB	21	17	76	1	10	6	-	4
BTZ	25	21	84	11	8	2	-	4
TOTAL	46	38	82	12	18	8	-	8

$$A+B+C = 12+18+8=38$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 38 \times 100 / 46 = 82\%$$

### Course Name : B.Sc. SEM V Biotechnology

#### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -V								
GROUP	APP.	PASS	%	A	B	C	D	E
BTB	21	20	95	4	11	4	2	1
BTZ	23	23	100	3	6	14	-	-
TOTAL	44	43	97	7	17	18	2	1

$$A+B+C = 7+17+18 = 42$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is=  $42 \times 100 / 44 = 95\%$



### Course Name : B.Sc. SEM VI Biotechnology

#### Result Analysis of Semester End Examination

- No. of students those who have scored  $\geq 75\%$  marks
- No. of students those who have scored  $\geq 60\%$  but  $< 75$  marks
- No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -VI								
GROUP	APP.	PASS	%	A	B	C	D	E
BTB	20	19	95	10	8	1	-	1
BTZ	23	23	100	11	12	-	-	-
TOTAL	43	42	97	21	20	1	-	1

$$A+B+C = 21+20+1 = 42$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 42 \times 100 / 43 = 97\%$$

### Attainment table for the Academic session 2018-19

Programme	Course	% of enrolled students those have scored $\geq 50\%$ marks in final examination ( $A+B+C$ ) $\times 100$ /(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I BTC	83	LEVEL-3
	B.Sc. SEM II BTC	82	LEVEL-3
	B.Sc. SEM III BTC	95	LEVEL-3
	B.Sc. SEM IV BTC	82	LEVEL-3
	B.Sc. SEM V BTC	95	LEVEL-3
	B.Sc. SEM VI BTC	97	LEVEL-3

*Chakresh*  
 Head of Microbiology  
 Shri Shivaji Science College  
 Amravati

## Department of Botany

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF BOTANY

ACADEMIC SESSION 2018-19

**EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)**

1. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
2. Direct assessment includes semester end examination conducted by the university.
3. Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and student's feedback.
4. The degree of attainment of COs/PSOs are expressed in terms of level of attainment

• **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

• **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination

### Evaluation of attainment of COs for 2018-2019

**Programme Name - B.Sc.**

**Course Name : B.Sc. SEM I BOT**

#### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER I (W-18)								
GROUP	APP.	PASS	%	A %	B%	C%	D%	E%
BIO+MEB	167	153	92	18	37	31	14	9
TOTAL								

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

= 86 %

SEMESTER II (S-18)								
GROUP	APP.	PASS	%	A %	B%	C%	D%	E%
BIO+MEB	152	144	95	31	35	18		
TOTAL								

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

= 84 %

SEMESTER III (W-18)								
GROUP	APP.	PASS	%	A %	B%	C%	D%	E%
BIO+MEB	168	117	70	20	35	28	22	-
TOTAL								

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

= 83%

SEMESTER IV (S-18)								
GROUP	APP.	PASS	%	A %	B%	C%	D%	E%
BIO+MEB	158	131	83	26	48	20	3	-
TOTAL								

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

= 94%

SEMESTER V (W-18)								
GROUP	APP.	PASS	%	A %	B%	C%	D%	E%
BIO+MEB	146	122	89	17	65	16	2	-
TOTAL								

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

= 98%



SEMESTER VI (S-18)								
GROUP	APP.	PASS	%	A %	B%	C%	D%	E%
BIO+MEB	155	122	79	23	38	26	11	-
TOTAL								

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

= 87%

#### Attainment table for the Academic session 2018-19

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination ( $A+B+C$ ) $\times 100$ /(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I BOT	86	LEVEL-3
	B.Sc. SEM II BOT	84	LEVEL-3
	B.Sc. SEM III BOT	83	LEVEL-3
	B.Sc. SEM IV BOT	94	LEVEL-3
	B.Sc. SEM V BOT	98	LEVEL-3
	B.Sc. SEM VI BOT	87	LEVEL-3
M.Sc. Botany	M.Sc. Botany Sem I- Cell biology, cytology and genetics	58	LEVEL-1
	M.Sc. Botany Sem I- Resource utilization and conservation	100	LEVEL-3
	M.Sc. Botany Sem I- Biology and diversity of algae and bryophytes	83	LEVEL-3
	M.Sc. Botany Sem I- Plant development and reproduction	4.1	LEVEL-0
	M.Sc. Botany Sem II- Cytogenetics and molecular biology	67	LEVEL-2
	M.Sc. Botany Sem II- Biology and diversity of microbes and fungi	75	LEVEL-3
	M.Sc. Botany Sem II- Plant Physiology	17	LEVEL-0
	M.Sc. Botany Sem II- Plant Metabolism	42	LEVEL-0
	M.Sc. Botany Sem III- Biology and diversity of Pteridophytes and Gymnosperms	83	LEVEL-3

	M.Sc. Botany Sem III- Taxonomy of Angiosperms	63	LEVEL-2
	M.Sc. Botany Sem III- Applied mycology - I	96	LEVEL-3
	M.Sc. Botany Sem III- Plant Pathology – II	100	LEVEL-3
	M.Sc. Botany Sem IV- Plant Ecology	92	LEVEL-3
	M.Sc. Botany Sem IV- Environmental Ecology	88	LEVEL-3
	M.Sc. Botany Sem IV- Plant Biotechnology	92	LEVEL-3
	M.Sc. Botany Sem IV- Genetic Engineering	42	LEVEL-0

### Evaluation of attainment of COs for 2018-19

Programme Name - M.Sc.

Course Name :( Bioinformatics)

#### Result Analysis of Semester End Examination

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -1-4 (2018-19)								
GROUP	APP.	PASS	%	A	B	C	D	E
M.Sc. I- Sem I	22	15	68.18	2	15	4	1	
M.Sc. I- Sem III	20	17	85	0	15	5		
M.Sc. I- Sem II	21	15	66.66	0	19	2		
M.Sc. I- Sem IV	13	6	46	0	5	6	2	
Total	76	53		2	54	17	3	

$$A+B+C = 02+54+17 = 73$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 73 \times 100 / 76 = 96\%$$

Dr. B. K. Dorkar  
Associate Professor  
Department of Botany  
Shri Shivaji Science College  
Amravati-431002

**Attainment table for the Academic session 2018-19**

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination $(A+B+C) \times 100 / (\text{appeared students})$	COs Attainment Level as per benchmark
<b>M.Sc. Bioinformatics</b>	M.Sc. Bioinformatics-Sem I- Mathematics and Biostatistics	95	LEVEL-3
	M.Sc. Bioinformatics-Sem I-Cell and Molecular Biology	82	LEVEL-3
	M.Sc. Bioinformatics-Sem I- Computer for Biologists	82	LEVEL-3
	M.Sc. Bioinformatics-Sem I- Introduction to Bioinformatics	77	LEVEL-3
	M.Sc. Bioinformatics-Sem II- Biochemistry and Biophysics	66.66	LEVEL-2
	M.Sc. Bioinformatics-Sem II- Genomics	81	LEVEL-3
	M.Sc. Bioinformatics-Sem II- Biological Database Management system	100	LEVEL-3
	M.Sc. Bioinformatics-Sem II- Techniques in Bioinformatics	95	LEVEL-3
	M.Sc. Bioinformatics-Sem III- System Biology	95	LEVEL-3
	M.Sc. Bioinformatics-Sem III- Proteomics	95	LEVEL-3
	M.Sc. Bioinformatics-Sem III-Bio Programming	85	LEVEL-3
	M.Sc. Bioinformatics-Sem III- Parasite Informatics	90	LEVEL-3
	M.Sc. Bioinformatics-Sem IV- Molecular Modeling and drug Design	84.61	LEVEL-3
	M.Sc. Bioinformatics-Sem IV-Chemo-Informatics	76.92	LEVEL-3
	M.Sc. Bioinformatics-Sem IV-Bio-Programming- II	61.53	LEVEL-2
	M.Sc. Bioinformatics-Sem IV- Research Methodology, IPR and Bioethics	69.23	LEVEL-2

  
Head

Department of Botany  
**Dr. B. K. Dorkar**  
Asso.Prof. & Head  
Deptt. of Botany  
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## Department of Chemistry

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF CHEMISTRY

ACADEMIC SESSION 2018-19

### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

1. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
2. Direct assessment includes semester end examination conducted by the university.
3. Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
4. The degree of attainment of COs/PSOs are expressed in terms o level of attainment

• **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

• **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination

**Programme Name - B.Sc.**

**Course Name : B.Sc. SEM I ( Chemistry ) W-18**

**Result Analysis of Semester End Examination**

Semester -I				
GROUP	APP.	PASS	%	% of student who scored more than 50%
PCM	70	66	94	94
PHG	19	19	100	100
BIO	91	60	65.90	65.9
BTB	23	16	69.50	69.71
BTZ	21	18	85.71	85.71
CEB	20	14	70	70
CEZ	22	18	81.81	81.81
MBB	24	23	90.80	90.80
MBZ	25	21	84	84.0
<b>TOTAL</b>	<b>315</b>	<b>255</b>	<b>82.41</b>	<b>82.41</b>

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$255 \times 100 / 315 = 82.41\%$$

**Course Name : B.Sc. SEMIII (Chemistry ) W-18**

**Result Analysis of Semester End Examination**

Semester -III				
GROUP	APP.	PASS	%	% of student who scored more than 50%
PCM	70	64	91.42	91.42
PHG	23	19	82.60	82.6
BIO	90	60	66.66	66.66
BTB	21	18	85.71	85.71
BTZ	25	24	96	96
CEB	22	13	59.09	59.09
CEZ	18	10	55.55	55.55
MBB	21	17	80.95	80.95
MBZ	22	16	72.72	72.72
<b>TOTAL</b>	<b>312</b>	<b>241</b>	<b>80.95</b>	<b>80.95</b>

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 241 \times 100 / 312 = 80.9\%$$

**Course Name : B.Sc. SEM V ( Chemistry ) W/2018**

Semester -III				
GROUP	APP.	PASS	%	% of student who scored more than 50%
PCM	79	75	94.93	94.93
PHG	19	14	73.68	73.68
BIO	82	64	78.04	78.04
BTB	21	19	90.47	90.47
BTZ	23	22	95.65	95.65
CEB	21	17	80.95	80.95
CEZ	28	20	71.42	71.42
MBB	20	18	90	90
MBZ	24	21	87.50	87.50
<b>TOTAL</b>	<b>317</b>	<b>270</b>	<b>83.73</b>	<b>83.73</b>

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 270 \times 100 / 317 = 83.73\%$$

**Course Name : B.Sc.I SEM II ( Chemistry ) S-19****Result Analysis of Semester End Examination**

Semester -II				
GROUP	APP.	PASS	%	% of student who scored more than 50%
PCM	68	63	92.6	92.6
PHG	20	18	90	90
BIO	91	70	76.90	76.90
BTB	21	19	90.47	90.47
BTZ	22	18	81.81	81.81
CEB	25	12	48	48
CEZ	24	22	91.66	91.66
MBB	25	24	96	96
MBZ	24	22	91.66	91.66
<b>TOTAL</b>	<b>320</b>	<b>268</b>	<b>84.33</b>	<b>84.33</b>

Therefore % of students those have scored  $\geq 50$  % marks in final examination I  $268 \times 100 / 320$   
 $= 84.33\%$  **Level 3**



## Department of Computer Science

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

Department of Computer Science

ACADEMIC SESSION 2018-19

### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

1. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
2. Direct assessment includes semester end examination conducted by the university.
3. Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
4. The degree of attainment of COs/PSOs are expressed in terms of level of attainment

• **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

• **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination

**Programme Name - B.Sc.**

**Course Name : B.Sc. Computer Science**

**Result Analysis of Semester End Examination**

- No. of students those who have scored  $\geq 75\%$  marks
- No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks
- No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER 1								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM	47	45	95.74	4	30	10	1	
CMP	23	21	91.30	5	16	1	2	
TOTAL	70	66	94.28	9	46	11	3	

$A+B+C = 9+46+11 = 66$  Therefore % of students those have scored  $\geq 50\%$  marks in final examination is = 94.28 %

SEMESTER 2								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM	46	44	95.65	6	25	13	3	
CMP	22	20	90.91	8	10	2	1	
TOTAL	68	64	94	14	35	15	4	

$A+B+C = 14+35+15 = 64$  Therefore % of students those have scored  $\geq 50\%$  marks in final examination is = 94.11 %

SEMESTER 3								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM	45	43	95.56	7	31	5	2	
CMP	25	22	88	0	17	5	2	
TOTAL	70	65	92.85	7	48	10	4	

$A+B+C = 7+48+10 = 65$  Therefore % of students those have scored  $\geq 50\%$  marks in final examination is = 92.85 %

SEMESTER 4								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM	44	42	95.45	14	18	10		
CMP	26	22	84.62	6	12	4		
TOTAL	70	64	91.42	20	30	14	5	

$A+B+C = 20+30+14 = 64$  Therefore % of students those have scored  $\geq 50\%$  marks in final examination is = 91.42 %



SEMESTER 5								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM	52	50	96.15	12	26	12		
CMP	24	21	87.50	7	7	7		
TOTAL	76	71	93.42	19	33	19	4	

A+B+C = 19+33+19=71 Therefore % of students those have scored  $\geq 50$  % marks in final examination is = 93.42 %

SEMESTER 6								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM	53	46	86.79	9	26	12		
CMP	23	16	69.57	3	8	8		
TOTAL	76	62	81	12	34	20	8	

A+B+C = 12+34+20=66 Therefore % of students those have scored  $\geq 50$  % marks in final examination is = 86.84 %

**Programme Name - B.Sc.**

**Course Name : B.Sc. Computer Application (Voc.)**

#### **Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER 1								
GROUP	APP.	PASS	%	A	B	C	D	E
CAM	21	15	71.43	0	8	9	4	
CAP	16	10	62.5	0	5	6	5	
CAS	22	16	72.73	0	8	11	3	
TOTAL	59	41	69.49	0	21	26	12	

A+B+C = 0+21+26 = 47

Therefore % of students those have scored  $\geq 50$  % marks in final examination is = 79.66 %

SEMESTER 2								
GROUP	APP.	PASS	%	A	B	C	D	E
CAM	21	20	95.24	0	9	12	6	
CAP	17	8	47.06	1	2	7	4	
CAS	21	12	57.14	0	4	3	6	
TOTAL	59	40	67.79	01	15	27	16	



$A+B+C = 1+15+27 = 43$  Therefore % of students those have scored  $\geq 50$  % marks in final examination is = 2.88 %

SEMESTER 3								
GROUP	APP.	PASS	%	A	B	C	D	E
CAS	23	12	52.17	0	5	13	6	
CAP	22	9	40.91	0	9	6	6	
CAM	23	10	43.48	0	8	8	7	
TOTAL	68	31	45.58	0	22	27	19	

$A+B+C = 0+22+27=49$  Therefore % of students those have scored  $\geq 50$  % marks in final examination is = 72 %

SEMESTER 4								
GROUP	APP.	PASS	%	A	B	C	D	E
CAS	22	17	77.27	1	12	6	4	
CAP	22	13	59.09	0	11	9	3	
CAM	24	17	70.83	0	15	5	2	
TOTAL	68	47	69.11	1	38	20	9	

$A+B+C = 1+38+20=59$  Therefore % of students those have scored  $\geq 50$  % marks in final examination is = 66.76 %

SEMESTER 5								
GROUP	APP.	PASS	%	A	B	C	D	E
CAS	23	19	82.61	8	8	7	0	
CAP	21	12	57.14	2	8	4	7	
CAM	24	24	100	4	14	2	3	
TOTAL	68	55	80.88	14	30	13	10	

$A+B+C = 14+30+13=57$  Therefore % of students those have scored  $\geq 50$  % marks in final examination is = 83.82 %

SEMESTER 6								
GROUP	APP.	PASS	%	A	B	C	D	E
CAM	21	18	85.714	9	9	1	2	
CAP	20	14	70	2	8	6	4	
CAS	25	24	96	10	13	2	0	
TOTAL	66	56	84.84	21	30	9	6	

$A+B+C = 21+30+9=60$  Therefore % of students those have scored  $\geq 50$  % marks in final examination is = 90.90 %

**Programme Name - M.Sc.**

**Course Name : M.Sc. Computer Software**

**SEMESTER 1**

GROUP	APP.	PASS	%	A	B	C	D	E
Adv.Java	30	20	66.67	0	1	6	13	
SE&ST	30	17	56.67	0	1	7	9	
.Net Tech using ASP	30	20	66.67	0	1	7	12	
Computer Network	30	29	96.67	0	2	11	16	

**SEMESTER 2**

GROUP	APP.	PASS	%	A	B	C	D	E
Prog. In C#	30	25	83.33	0	7	11	7	
DOS	30	25	83.33	1	6	10	8	
ADBMS	30	26	86.67	0	4	15	7	
FOSS	30	30	100	6	16	6	2	

**SEMESTER 3**

GROUP	APP.	PASS	%	A	B	C	D	E
Data Ware House & Data Mining	26	26	100	0	2	16	8	
PHP Prog.	26	24	92	0	2	9	13	
Mob.Comp. with Android	26	26	100	0	18	5	1	
Compiler Construction	26	26	100	0	7	15	4	

**SEMESTER 4**

GROUP	APP.	PASS	%	A	B	C	D	E
Cyber Security & D.F.	26	25	96.15	0	4	13	8	
Soft Computing	26	26	100	3	15	7	1	
Web Content Management System	26	26	100	1	16	8	1	
Cloud Computing	23	23	88.46	0	3	11	9	




## Performance table for the Academic session 2018-19

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination ( $(A+B+C) \times 100 / (\text{appeared students})$ )	COs Attainment Level as per benchmark
	B.Sc. SEM I Comp. Sci.	94	LEVEL-3
	B.Sc. SEM II Comp. Sci.	94	LEVEL-3
	B.Sc. SEM III Comp. Sci.	95	LEVEL-3
	B.Sc. SEM IV Comp. Sci.	91	LEVEL-3
	B.Sc. SEM V Comp. Sci.	93	LEVEL-3
	B.Sc. SEM VI Comp. Sci.	87	LEVEL-3
	B.Sc. SEM I C.A. Voc.	79.66	LEVEL-3
	B.Sc. SEM II C.A. Voc.	72.88	LEVEL-3
	B.Sc. SEM III C.A. Voc..	72	LEVEL-3
	B.Sc. SEM IV C.A. Voc..	86.76	LEVEL-3
	B.Sc. SEM V C.A. Voc.	83.82	LEVEL-3
	B.Sc. SEM VI C.A. Voc.	90.90	LEVEL-3
A.	B.C.A. SEM I C.F.	75	LEVEL-3
	B.C.A. SEM I C Lang.	53	LEVEL-1
	B.C.A. SEM I D.T. I	58	LEVEL-1
	B.C.A. SEM I N.M.	58	LEVEL-1
	B.C.A. SEM I D.M	84	LEVEL-3
	B.C.A. SEM I CS	70	LEVEL-3
	B.C.A. SEM II OS	45.76	LEVEL-0
	B.C.A. SEM II C-Prog.	38.98	LEVEL-0
	B.C.A. SEM II DT-II	53.39	LEVEL-1
	B.C.A. SEM II NM	44.07	LEVEL-0
	B.C.A. SEM II DM	60.17	LEVEL-2
	B.C.A. SEM II CS	74.58	LEVEL-3
	B.C.A. SEM III DS	65	LEVEL-2
	B.C.A. SEM III OOP	40	LEVEL-0
	B.C.A. SEM III DBMS	58	LEVEL-1
	B.C.A. SEM III AOS	44	LEVEL-0
	B.C.A. SEM III Electronics	60	LEVEL-2
	B.C.A. SEM IV SAD/MIS	66.67	LEVEL-2
	B.C.A. SEM IV VB	44.32	LEVEL-0
	B.C.A. SEM IV WAD	68.54	LEVEL-2
	B.C.A. SEM IV Networking	66.67	LEVEL-2
	B.C.A. SEM IV Ad. Micro.	68.18	LEVEL-2
	B.C.A. SEM V Core Java	83.53	LEVEL-3
	B.C.A. SEM V Network Security	72.09	LEVEL-3
	B.C.A. SEM V Software Engineering	94.3	LEVEL-3
	B.C.A. SEM V Computer Graphics	85.88	LEVEL-3
	B.C.A. SEM V E commerce	82.35	LEVEL-3
	B.C.A. SEM VI .Net	93.02	LEVEL-3
	B.C.A. SEM VI CST	97.67	LEVEL-3
	B.C.A. SEM VI ADBMS	89.53	LEVEL-3
	B.C.A. SEM VI MMT	96.51	LEVEL-3
	B.C.A. SEM VI Soft. Testing	97.67	LEVEL-3
Programme	Course	% of enrolled students those have scored $\geq 40$	COs Attainment Level as per



		% marks in final examination ( $A+B+C+D$ ) $\times 100$ /(appeared students)	benchmark
M.Sc. Computer Soft	M.Sc. Computer Soft. Sem I- <b>Adv.Java</b>	66.67	LEVEL-2
	M.Sc. Computer Soft. Sem I- <b>SE&amp;ST</b>	56.67	LEVEL-1
	M.Sc. Computer Soft. Sem I <b>.Net Tech using ASP</b>	66.67	LEVEL-2
	M.Sc. Computer Soft. Sem I- <b>- Computer Network</b>	96.67	LEVEL-3
	M.Sc. Computer Soft. Sem II- <b>Prog. In C#</b>	83.33	LEVEL-3
	M.Sc. Computer Soft. Sem II <b>- DOS</b>	83.33	LEVEL-3
	M.Sc. Computer Soft. Sem II <b>- ADBMS</b>	86.67	LEVEL-3
	M.Sc. Computer Soft. Sem II <b>- FOSS</b>	100	LEVEL-3
	M.Sc. Computer Soft. Sem III- <b>Data Ware House &amp; Data Mining</b>	100	LEVEL-3
	M.Sc. Computer Soft. Sem III <b>PHP Prog</b>	92	LEVEL-3
	M.Sc. Computer Soft. Sem III <b>- Mob.Comp. with Android</b>	100	LEVEL-3
	M.Sc. Computer Soft. Sem III <b>Compiler Construction</b>	100	LEVEL-3
	M.Sc. Computer Soft. Sem IV <b>Cyber Security &amp; D.F.</b>	96.15	LEVEL-3
	M.Sc. Computer Soft. Sem IV <b>Soft Computing</b>	100	LEVEL-3
	M.Sc. Computer Soft. Sem IV <b>Web Content Management System</b>	100	LEVEL-3
	M.Sc. Computer Soft. Sem IV <b>- Cloud Computing</b>	88.46	LEVEL-3

  
 Head  
 Dept. of Computer Science  
 Shri Shivaji Science College  
 Amravati.

## Department of Environmental Science

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF ENVIRONMENTAL SCIENCE

ACADEMIC SESSION 2018-19

### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

- The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
- Direct assessment includes semester end examination conducted by the university.
- Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
- The degree of attainment of COs/PSOs are expressed in terms of level of attainment

• **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

• **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination



**Programme Name - B.Sc.**

**Course Name: B.Sc. ENVIRONMENTAL SCIENCE**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER I								
GROUP	APP.	PASS	%	A	B	C	D	E
CEB	23	12	52.2	1	4	4	3	
CEZ	23	14	60.9	2	9	3		
TOTAL	46	26	56.52	3	13	7	3	

$$A+B+C = 3+13+7 = 23$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 23 \times 100 / 46 = 50\%$$

SEMESTER II								
GROUP	APP.	PASS	%	A	B	C	D	E
CEB	22	14	63.6	1	9	4		
CEZ	24	21	87.5	4	13	3		
TOTAL	46	35	76.08	5	22	7	1	

$$A+B+C = 41+7+1 = 49$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 49 \times 100 / 50 = 98\%$$

SEMESTER III								
GROUP	APP.	PASS	%	A	B	C	D	E
CEB	21	19	90.5	5	7	6	1	
CEZ	19	14	73.7	5	7	2		
TOTAL	40	33	82.5	10	14	8	1	

$$A+B+C = 10+14+8 = 32$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 32 \times 100 / 40 = 80\%$$

SEMESTER IV								
GROUP	APP.	PASS	%	A	B	C	D	E
CEB	21	18	85.71	6	9	3		
CEZ	19	15	78.94	9	5	1		
TOTAL	40	33	82.5	15	14	4		

$$A+B+C = 15+14+4 = 33$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is



$$= 33 \times 100 / 40 = 82.5 \%$$

SEMESTER V								
GROUP	APP.	PASS	%	A	B	C	D	E
CEB	21	19	90.48	5	13	1		
CEZ	28	26	92.86	6	15	4	1	
TOTAL	49	45	91.84	11	28	5	1	

$$A+B+C = 11+28+5 = 44$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 44 \times 100 / 49 = 89.79 \%$$

SEMESTER VI								
GROUP	APP.	PASS	%	A	B	C	D	E
CEB	28	28	100	12	9			
CEZ	21	21	100	10	15	2	1	
TOTAL	49	49	100	22	24	2	1	

$$A+B+C = 22+24+2 = 48$$


Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$48 \times 100 / 49 = 97.95 \%$$

### Attainment table for the Academic session 2018-19

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination( $A+B+C$ ) $\times 100 /$ (appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I EVS	50	LEVEL-2
	B.Sc. SEM II EVS	98	LEVEL-3
	B.Sc. SEM III EVS	80	LEVEL-3
	B.Sc. SEM IV EVS	82.5	LEVEL-3
	B.Sc. SEM V EVS	89.79	LEVEL-3
	B.Sc. SEM VI EVS	97.95	LEVEL-3
	B.Sc. SEM VI EVS	97.95	LEVEL-3
M.Sc. Environmental Sci.	M.Sc. Environmental Sci. Sem I- Environmental Sci.-A Interdisciplinary Approach	66.66	LEVEL-2
	M.Sc. Environmental Sci. Sem I- Concepts Of Ecology & Biodiversity	58.33	LEVEL-1
	M.Sc. Physics Sem I- Environmental Chemistry	87.5	LEVEL-3
	M.Sc. Environmental Sci. Sem I- Geodynamics & Energy Resources	66.66	LEVEL-2
	M.Sc. Environmental Sci. Sem II- Bioinformatics In Environmental Analysis	66.66	LEVEL-2
	M.Sc. Physics Sem II- Environmental Microbiology	75	LEVEL-3
	M.Sc. Environmental Sci.	95.83	LEVEL-3

	Sem II- Air & Noise Pollution		
	M.Sc. Environmental Sci. Sem II- Water Pollution	66.66	LEVEL-2
	M.Sc. Environmental Sci. Sem III- Terrestrial Pollution	100	LEVEL-3
	M.Sc. Environmental Sci. Sem III- Remote Sensing, GIS & Computer Application	100	LEVEL-3
	M.Sc. Environmental Sci. Sem III- Environmental Impact Assessment & Audit	100	LEVEL-3
	M.Sc. Environmental Sci. Sem III- Pollution Control Technology	100	LEVEL-3
	M.Sc. Environmental Sci. Sem IV- Environmental Toxicology & Hazardous Waste Mngt	95.45	LEVEL-3
	M.Sc. Environmental Sci. Sem IV- Industrial Hygiene & Safety	90.90	LEVEL-3
	M.Sc. Environmental Sci. Sem IV- Nature Conservation & Environmental Mngt.	95.45	LEVEL-3
	M.Sc. Environmental Sci. Sem IV- Environmental Policies Legislation	100	LEVEL-3

  
**Dr. S.P. Ingole**  
 Head  
 Dept. Of Environmental Science  
 Shri Shivaji Science College,  
 Amravati.



## Department of Geology

### SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

#### DEPARTMENT OF GEOLOGY

ACADEMIC SESSION 2018-2019

#### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

1. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
2. Direct assessment includes semester end examination conducted by the university.
3. Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
4. The degree of attainment of COs/PSOs are expressed in terms o level of attainment

• **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

• **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination



Course Name : B.Sc. SEM III GEO

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER III								
GROUP	APP.	PASS	%	A	B	C	D	E
CAP	23	10	43.47%	-	8	7	7	1
PHG	22	13	59.09%	1	5	8	4	4
TOTAL	45	23	51.11%	1	13	15	11	5

$$A+B+C = 1+13+15 = 29$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is  
 $= 29 \times 100 / 45 = 64\%$

Course Name : B.Sc. SEM IV GEO

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER IV								
GROUP	APP.	PASS	%	A	B	C	D	E
CAP	23	15	65.21%	3	8	6	5	1
PHG	22	17	77.27%	2	10	5	1	4
TOTAL	45	32	71.11%	5	18	11	6	5

$$A+B+C = 5+18+11 = 34$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is  
 $= 34 \times 100 / 45 = 75.56\%$

**Programme Name - B.Sc.**

**Course Name : B.Sc. SEM I GEO**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER I								
GROUP	APP.	PASS	%	A	B	C	D	E
CAP	15	9	60%	-	2	7	3	3
PHG	20	17	85%	3	10	4	2	1
<b>TOTAL</b>	<b>35</b>	<b>26</b>	<b>74.28%</b>	<b>3</b>	<b>12</b>	<b>11</b>	<b>5</b>	<b>4</b>

$$A+B+C = 3+12+11 = 26$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 26 \times 100 / 35 = 74\%$$

**Course Name : B.Sc. SEM II GEO**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER II								
GROUP	APP.	PASS	%	A	B	C	D	E
CAP	16	9	56.25%	-	3	6	4	3
PHG	18	17	94.44%	9	6	2	-	1
<b>TOTAL</b>	<b>34</b>	<b>26</b>	<b>76.47%</b>	<b>9</b>	<b>9</b>	<b>8</b>	<b>4</b>	<b>4</b>

$$A+B+C = 9+9+8 = 26$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 26 \times 100 / 34 = 76\%$$

Course Name : B.Sc. SEM V GEO

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER V								
GROUP	APP.	PASS	%	A	B	C	D	E
CAP	20	10	50%	-	5	4	7	4
PHG	19	13	68.42%	7	4	4	4	-
TOTAL	39	23	58.97%	7	9	8	11	4

$$A+B+C = 7+9+8 = 24$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 24 \times 100 / 39 = 62\%$$

Course Name : B.Sc. SEM VI GEO

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER VI								
GROUP	APP.	PASS	%	A	B	C	D	E
CAP	21	14	66.66%	1	11	4	2	3
PHG	19	18	94.73%	8	8	3	-	-
TOTAL	40	32	80%	7	9	8	11	4

$$A+B+C = 7+9+8 = 24$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 24 \times 100 / 40 = 60\%$$



### Attainment table for the Academic session 2018-19

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination (A+B+C)X100/(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I GEO	74 %	LEVEL-3
	B.Sc. SEM II GEO	76 %	LEVEL-3
	B.Sc. SEM III GEO	64 %	LEVEL-2
	B.Sc. SEM IV GEO	53 %	LEVEL-1
	B.Sc. SEM V GEO	62 %	LEVEL-2
	B.Sc. SEM VI GEO	60 %	LEVEL-2

Date: 5/12/2019

Place: Amravati

Yours Sincerely

*M.M. Deshmukh*

Dr. M.M. Deshmukh

Head & Assistant Professor

Shri. Shivaji Science College,

Amravati

Dr. M.M. Deshmukh

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## Department of Mathematics

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF MATHEMATICS

ACADEMIC SESSION 2018-19

### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

- The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
- Direct assessment includes semester end examination conducted by the university.
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- **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50\%$ marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50\%$ marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50\%$ marks in final examination

- **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40\%$ marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40\%$ marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40\%$ marks in final examination



**Programme Name - B.Sc.****Course Name : B.Sc. SEM I MATHEMATICS****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER I								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	70	67	95.71	22	19	13	13	3
CSM	47	46	97.87	10	12	12	12	1
CMP	23	21	91.30	5	6	5	5	2
CAM	21	19	90.48	0	4	5	10	2
CAS	22	17	77.27	1	3	5	8	5
<b>TOTAL</b>	<b>183</b>	<b>170</b>	<b>92.90</b>	<b>38</b>	<b>44</b>	<b>40</b>	<b>48</b>	<b>13</b>

$$A+B+C = 38+44+40 = 122$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 122 \times 100 / 183 = 66\%$$

**Course Name : B.Sc. SEM II MATHEMATICS****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER II								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	68	64	94.11	11	20	15	18	4
CSM	46	45	97.83	4	13	13	15	1
CMP	22	20	80	2	5	9	4	2
CAM	21	19	90.47	0	3	1	15	2
CAS	21	15	71.43	0	3	2	10	6
<b>TOTAL</b>	<b>178</b>	<b>163</b>	<b>91.58</b>	<b>17</b>	<b>44</b>	<b>40</b>	<b>62</b>	<b>15</b>

$$A+B+C = 17+44+40=101$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 101 \times 100 / 178 = 56.74\%$$

**Course Name : B.Sc. SEM III MATHEMATICS****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER III								



GROUP	APP.	PASS	%	A	B	C	D	E
PCM	70	59	84.28	6	22	17	14	11
CSM	44	43	97.73	8	14	11	10	1
3CMP	25	22	88	4	6	8	4	3
CAM	24	18	75	3	1	6	8	6
CAS	23	18	78.26	0	4	6	8	5
<b>TTOTAL</b>	<b>186</b>	<b>160</b>	<b>86.02</b>	<b>21</b>	<b>47</b>	<b>48</b>	<b>44</b>	<b>26</b>

$$B+C = 21+47+48 = 116$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$116 \times 100 / 186 = 62.37 \%$$

**Course Name : B.Sc. SEM I V MATHEMATICS**

#### Result Analysis of Semester End Examination

- No. of students those who have scored  $\geq 75\%$  marks
- No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks
- No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER IV								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	70	65	92.90	19	25	13	8	5
CSM	45	45	100	20	17	6	2	0
CMP	26	26	100	9	8	6	3	0
CAM	24	20	83.3	7	5	4	4	4
CAS	24	19	79.20	3	9	3	4	5
<b>TOTAL</b>	<b>189</b>	<b>176</b>	<b>92.59</b>	<b>58</b>	<b>64</b>	<b>32</b>	<b>21</b>	<b>14</b>

$$B+C = 58+64+32=154$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$154 \times 100 / 189 = 81.48 \%$$

**Course Name : B.Sc. SEM V MATHEMATICS**

#### Result Analysis of Semester End Examination

- No. of students those who have scored  $\geq 75\%$  marks
- No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks
- No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER V								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	79	75	94.94	15	24	23	13	4
CSM	52	50	96.15	13	18	8	11	2
CMP	24	23	95.83	8	8	4	3	1
CAM	22	19	86.36	1	10	5	3	3
CAS	24	23	95.83	2	10	8	3	1
<b>TOTAL</b>	<b>201</b>	<b>190</b>	<b>94.52</b>	<b>39</b>	<b>70</b>	<b>48</b>	<b>33</b>	<b>11</b>

$$B+C = 39+70+48 = 157$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is



$$= 157 \times 100 / 201 = 78.11\%$$

**Course Name : B.Sc. SEM VI MATHEMATICS**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER VI								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	79	76	96.20	23	34	14	5	3
CSM	51	49	96.08	22	10	13	4	2
CMP	24	23	95.83	10	4	5	4	1
CAM	22	21	95.45	7	5	2	7	1
CAS	24	24	100	6	5	4	9	0
<b>TOTAL</b>	<b>200</b>	<b>193</b>		<b>68</b>	<b>58</b>	<b>38</b>	<b>29</b>	<b>7</b>

$$A+B+C = 68+58+38=164$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 164 \times 100 / 200 = 82\%$$

**Attainment table for the Academic session 2018-19**

Programme	Course	% of enrolled students those have scored $\geq 50\%$ marks in final examination (A+B+C)X100/(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I MATHEMATICS	66	LEVEL-2
	B.Sc. SEM II MATHEMATICS	56.74	LEVEL-1
	B.Sc. SEM III MATHEMATICS	62.37	LEVEL-2
	B.Sc. SEM IV MATHEMATICS	81.48	LEVEL-3
	B.Sc. SEM V MATHEMATICS	78.11	LEVEL-3
	B.Sc. SEM VI MATHEMATICS	82.00	LEVEL-3

**UMESH M. PATIL**

**HEAD**

**Department of Mathematics**  
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## Department of Microbiology

### Department of Microbiology

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

DEPARTMENT OF MICROBIOLOGY

ACADEMIC SESSION 2018-19

#### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

5. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
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• **The benchmarks defined for measurement of attainment levels for UG are-**

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LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

• **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination



**Programme Name - B.Sc.**

**Course Name : B.Sc. SEM I Microbiology**

**Result Analysis of Semester End Examination**

No. of students those who have scored  $\geq 75\%$  marks

No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

**SEMESTER-I**

GROUP	APP.	PASS	%	A	B	C	D	E
MBB	21	21	100	10	3	7	1	-
MBZ	28	26	95	13	7	6	0	2
TOTAL	49	47	95	33	10	13	1	2

$$B+C = 33+10+13=46$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$46 \times 100 / 49 = 93\%$$

**Course Name : B.Sc. SEM II Microbiology**

**Result Analysis of Semester End Examination**

No. of students those who have scored  $\geq 75\%$  marks

No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

**SEMESTER -II**

GROUP	APP.	PASS	%	A	B	C	D	E
MBB	25	22	92	8	10	4	-	3
MBZ	25	22	88	6	13	4	-	3
TOTAL	50	44	88	14	23	8	-	6

$$B+C = 14 + 23 + 8 = 45$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$45 \times 100 / 50 = 90\%$$

**Course Name : B.Sc. SEM III Microbiology**

**Result Analysis of Semester End Examination**

No. of students those who have scored  $\geq 75\%$  marks

No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

**SEMESTER -III**

GROUP	APP.	PASS	%	A	B	C	D	E
MBB	19	17	89	8	8	1	-	2
MBZ	20	17	67	6	7	4	-	3
TOTAL	39	34	87	14	15	5	-	5

$$B+C = 14+15+5=34$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 34 \times 100 / 39 = 87\%$$

**Course Name : B.Sc. SEM IV Microbiology**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -IV								
GROUP	APP.	PASS	%	A	B	C	D	E
MBB	21	19	90	7	9	3	-	2
MBZ	22	19	86	8	8	2	1	3
TOTAL	43	38	86	15	17	5	1	5

$$A+B+C = 15+17+5=37$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 37 \times 100 / 43 = 86\%$$

**Course Name : B.Sc. SEM V Microbiology**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -V								
GROUP	APP.	PASS	%	A	B	C	D	E
MBB	21	21	100	9	9	3	-	-
MBZ	24	23	95	12	10	-	-	1
TOTAL	45	44	97	21	19	3	-	1

$$A+B+C = 21+19+3= 43$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is  $= 43 \times 100 / 45 = 95\%$

**Course Name : B.Sc. SEM VI Microbiology**

**Result Analysis of Semester End Examination**

- No. of students those who have scored  $\geq 75\%$  marks

- No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

- No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER -VI								
GROUP	APP.	PASS	%	A	B	C	D	E
MBB	20	20	100	11	7	1	1	-
MBZ	24	24	100	11	10	3	-	-
TOTAL	44	44	100	22	17	3	1	-

$$A+B+C = 22+17+3 = 42$$



Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$2 \times 100 / 44 = 95\%$$

### Attainment table for the Academic session 2018-19

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination (A+B+C)X100/(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I MCB	93	LEVEL-3
	B.Sc. SEM II MCB	90	LEVEL-3
	B.Sc. SEM III MCB	87	LEVEL-3
	B.Sc. SEM IV MCB	86	LEVEL-3
	B.Sc. SEM V MCB	95	LEVEL-3
	B.Sc. SEM VI MCB	95	LEVEL-3

*Chakresh*  
 Head  
 Department of Microbiology  
 Shivaji Science College  
 Amravati



## Department of Physics

SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

### DEPARTMENT OF PHYSICS

ACADEMIC SESSION 2018-19

#### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

- The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
- Direct assessment includes semester end examination conducted by the university.
- Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and student's feedback.
- The degree of attainment of COs/PSOs are expressed in terms of level of attainment

• **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50\%$ marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50\%$ marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50\%$ marks in final examination

• **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40\%$ marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40\%$ marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40\%$ marks in final examination

**Programme Name - B.Sc.**

**Course Name : B.Sc. SEM I PHY**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER 1								
GROUP	APP.	PASS	%	A	B	C	D	E
CMP	23	20	87	9	8	3	0	3
CAP	20	10	50	0	2	5	3	10
CAM	21	18	86	2	7	9	0	3
PCM	71	64	90	35	17	11	0	8
PHG	19	15	79	3	4	7	1	4
TOTAL	154	127	82	49	38	35	4	28

$$A+B+C = 49+38+35 = 122$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 122 \times 100 / 154 = 79.22\%$$

**Course Name : B.Sc. SEM II PHY**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER II								
GROUP	APP.	PASS	%	A	B	C	D	E
CMP	23	18	78	5	8	3	2	5
CAP	20	9	45	0	3	4	2	11
CAM	21	16	76	0	2	4	10	5
PCM	71	56	79	18	22	6	10	15
PHG	19	9	47	0	4	2	3	10
TOTAL	154	108	70	23	39	19	27	46

$$A+B+C = 23+39+19 = 81$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 81 \times 100 / 154 = 52.59\%$$



**Course Name : B.Sc. SEM III PHY****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER III								
GROUP	APP.	PASS	%	A	B	C	D	E
CMP	25	22	88	6	14	2	0	3
CAP	23	12	52	1	5	6	0	11
CAM	25	17	68	0	11	6	0	8
PCM	70	60	86	25	29	6	0	10
PHG	22	12	55	4	5	3	0	10
TOTAL	165	123	75	36	64	23	0	42

$$A+B+C = 36+64+23 = 123$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 123 \times 100 / 165 = 74.54\%$$

**Course Name : B.Sc. SEM IV PHY****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER IV								
GROUP	APP.	PASS	%	A	B	C	D	E
CMP	23	24	104	5	10	8	1	-1
CAP	24	15	63	0	5	7	3	9
CAM	24	17	71	0	3	9	5	7
PCM	73	64	88	19	23	14	8	9
PHG	24	17	71	1	4	6	6	7
TOTAL	168	137	82	25	45	44	23	31

$$A+B+C = 25+45+44 = 114$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 114 \times 100 / 137 = 83.21\%$$



**Course Name : B.Sc. SEM V PHY****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER V								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	79	67	85	21	28	7	1	22
PHG	25	16	64	2	11	3	0	9
CMP	29	22	76	8	9	5	0	7
CAM	25	12	48	2	4	6	0	13
CAP	9	3	33	1	1	1	0	6
TOTAL	167	120	72	34	53	22	1	57

$$A+B+C = 34+53+22=109$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 109 \times 100 / 167 = 65.26\%$$

**Course Name : B.Sc. SEM VI PHY****Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER VI								
GROUP	APP.	PASS	%	A	B	C	D	E
PCM	79	70	89	9	31	13	17	9
PHG	25	22	88	4	9	4	5	3
CMP	29	29	100	1	10	9	9	0
CAM	25	18	72	1	6	4	7	7
CAP	9	8	89	1	1	0	6	1
TOTAL	167	147	88	16	57	30	44	20

$$A+B+C = 16+57+30=103$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 103 \times 100 / 167 = 61.67\%$$

**Programme Name - M.Sc. PHY**

**Course Name : M.Sc. SEM I PHY**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER I										
Paper	Appeared	Pass	%	A	B	C	D	E	A+B+C+D	% of students those have scored $\geq 40\%$ marks
IPhy1	19	15	78.95	0	7	6	2	4	15	78.95
IPhy2	19	18	94.74	0	7	10	0	2	17	89.47
IPhy3	19	12	63.16	0	3	3	6	7	12	63.16
IPhy4	19	13	68.42	0	2	4	7	6	13	68.42

**Programme Name - M.Sc. PHY**

**Course Name : M.Sc. SEM II PHY**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER II										
Paper	Appeared	Pass	%	A	B	C	D	E	A+B+C+D	% of students those have scored $\geq 40\%$ marks
2Phy1	19	17	89.47	0	4	9	4	2	17	89.47
2Phy2	19	14	73.68	0	2	5	7	5	14	73.68
2Phy3	19	14	73.68	0	0	2	12	5	14	73.68
2Phy4	19	10	52.63	0	1	2	7	9	10	52.63



Course Name : M.Sc. SEM III PHY

**Result Analysis of Semester End Examination**

- A - No. of students those who have scored  $\geq 75\%$  marks  
 B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks  
 C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER III										
Paper	Appeared	Pass	%	A	B	C	D	E	A+B+C+D	% of students those have scored $\geq 40$ % marks
IPhy1	22	18	81.82	0	5	5	8	4	18	81.82
IPhy2	22	19	86.36	4	7	6	2	3	19	86.36
IPhy3	22	18	81.82	0	9	6	3	4	18	81.82
IPhy4	22	12	54.55	2	1	3	6	10	12	54.55

Course Name : M.Sc. SEM IV PHY

**Result Analysis of Semester End Examination**


- A - No. of students those who have scored  $\geq 75\%$  marks  
 B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks  
 C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

C - No. of students those who have scored 25% - 50%										
SEMESTER IV										
Paper	Appeared	Pass	%	A	B	C	D	E	A+B+C+D	% of students those have scored $\geq 40\%$ marks
									18	94.74
2Phy1	19	18		1	6	5	6	1	13	68.42
2Phy2	19	13		2	6	4	1	6	15	78.95
2Phy3	19	15		0	6	4	5	4	14	73.68
2Phy4	19	14		0	4	3	7	5		



## Attainment table for the Academic session 2018-19

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination (A+B+C)X100/(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I PHY	79.22	LEVEL-3
	B.Sc. SEM II PHY	52.59	LEVEL-1
	B.Sc. SEM III PHY	74.54	LEVEL-3
	B.Sc. SEM IV PHY	83.21	LEVEL-3
	B.Sc. SEM V PHY	65.26	LEVEL-2
	B.Sc. SEM VI PHY	61.67	LEVEL-2
M.Sc. Physics	M.Sc. Physics Sem I- Mathematical Physics	78.95	LEVEL-3
	M.Sc. Physics Sem I- Classical Mechanics	89.47	LEVEL-3
	M.Sc. Physics Sem I- Quantum Mechanics -I	63.16	LEVEL-2
	M.Sc. Physics Sem I- Computational Methods & Programming	68.42	LEVEL-2
	M.Sc. Physics Sem II- Electrodynamics-I	89.47	LEVEL-3
	M.Sc. Physics Sem II- Quantum Mechanics -II	73.68	LEVEL-3
	M.Sc. Physics Sem II- Solid State Physics	73.68	LEVEL-3
	M.Sc. Physics Sem II- Network Theorem & Solid State Devices	52.63	LEVEL-1
	M.Sc. Physics Sem III- Electrodynamics-II	81.82	LEVEL-3
	M.Sc. Physics Sem III-Statistical Mechanics	86.36	LEVEL-3
	M.Sc. Physics Sem III-Atomic & Molecular Physics	81.82	LEVEL-3
	M.Sc. Physics Sem III- Condensed Matter Physics-I	54.55	LEVEL-1
	M.Sc. Physics Sem IV- Nuclear & Particle Physics	94.74	LEVEL-3
	M.Sc. Physics Sem IV- OPAMP & its Applications	68.42	LEVEL-2
	M.Sc. Physics Sem IV-Condensed Matter Physics-II	78.95	LEVEL-3
	M.Sc. Physics Sem IV-Nanoscience & Nanotechnology	73.68	LEVEL-3

  
**HEAD,**  
 Department of Physics,  
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## Department of Statistics

### SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

#### DEPARTMENT OF STATISTICS

#### ACADEMIC SESSION 2018-19

#### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

1. The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
2. Direct assessment includes semester end examination conducted by the university.
3. Indirect assessment includes class tests, mid semester examination, home assignments, project assignment, laboratory assignment, viva voce and students feedback.
4. The degree of attainment of COs/PSOs are expressed in terms of level of attainment

• **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

• **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of COs	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination

**Result Analysis of Semester End Examination**A - No. of students those who have scored  $\geq 75\%$  marksB - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marksC - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER 1								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM+CAS	68	64	92.75	14	42	7	1	0
TOTAL	68	64	92.75	14	42	7	1	0

$$A+B+C = 14+42+7$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 63 \times 100 / 68 = 92.65\%$$

SEMESTER 2								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM+CAS	67	58	86.56	24	23	10	1	0
TOTAL	67	58	86.56	24	23	10	1	0

$$A+B+C = 24+23+10$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 57 \times 100 / 67 = 85.07\%$$

SEMESTER 3								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM+CAS	69	58	84.05	20	33	05	0	0
TOTAL	69	58	84.05	20	33	05	0	0

$$A+B+C = 20+33+05$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 58 \times 100 / 69 = 84.05$$

SEMESTER 4								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM+CAS	68	66	97.05	36	29	1	0	0
TOTAL	68	66	97.05	36	29	1	0	0

$$A+B+C = 36+29+01$$

Therefore % of students those have scored  $\geq 50\%$  marks in final examination is

$$= 66 \times 100 / 68 = 97.05\%$$



SEMESTER 5								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM+CAS	76	73	96.05	45	24	4	0	0
TOTAL	76	73	96.05	45	24	4	0	0

$$A+B+C = 45+24+04$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 73 \times 100 / 76 = 96.05\%$$

SEMESTER 6								
GROUP	APP.	PASS	%	A	B	C	D	E
CSM+CAS	74	69	93.24	33	32	04	0	0
TOTAL	74	69	93.24	33	32	04	0	0

$$A+B+C = 33+32+04$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 69 \times 100 / 74 = 93.24\%$$

### Attainment table for the Academic session 2018-19

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination ( $A+B+C$ ) $\times 100$ / (appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I STAT	92.75	LEVEL-3
	B.Sc. SEM II STAT	85.56	LEVEL-3
	B.Sc. SEM III STAT	84.05	LEVEL-3
	B.Sc. SEM IV STAT	97.05	LEVEL-3
	B.Sc. SEM V STAT	96.05	LEVEL-3
	B.Sc. SEM VI STAT	93.24	LEVEL-3

for *[Signature]*  
Head  
Dept. of Statistics,  
Shri Shivaji Science College  
AMP

## Department of Zoology

### SHRI SHIVAJI SCIENCE COLLEGE, AMRAVATI

#### DEPARTMENT OF ZOOLOGY

#### ACADEMIC SESSION 2018-19

#### EVALUATION REPORT ABOUT ATTAINMENT OF COURSE OUTCOMES (COs) AND PROGRAMME SPECIFIC OUTCOMES (PSOs)

- The department evaluates attainment of COs by direct assessment and PSOs by indirect assessment of students' performance.
- Direct assessment includes semester end examination conducted by the university.
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- **The benchmarks defined for measurement of attainment levels for UG are-**

Level of Attainment (LOA) of Cos	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 50$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 50$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 50$ % marks in final examination

- **The benchmarks defined for measurement of attainment levels for PG are-**

Level of Attainment (LOA) of Cos	Benchmark for attainment
LOA-1	50% of enrolled students have scored $\geq 40$ % marks in final examination
LOA-2	60 % of enrolled students have scored $\geq 40$ % marks in final examination
LOA-3	70 % of enrolled students have scored $\geq 40$ % marks in final examination



**Programme Name - B.Sc.**

**Course Name: B.Sc. SEM I Zoo**

**Result Analysis of Semester End Examination**

A - No. of students those who have scored  $\geq 75\%$  marks

B - No. of students those who have scored  $\geq 60\%$  but  $< 75\%$  marks

C - No. of students those who have scored  $\geq 50\%$  but  $< 60\%$  marks

SEMESTER 1								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	91	55	60.43	14	13	30	36	36
MEB	69	57	81.00	19	29	14	14	12
TOTAL	160	112	70.71	33	42	44	50	48

SEMESTER 2								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	92	89	97	02	25	52	10	03
MEB	72	64	89	04	15	33	12	08
TOTAL	164	154	94	06	40	85	22	11

SEMESTER 3								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	87	73	84	28	41	4	0	14
MEB	67	45	67	5	14	13	13	22
TOTAL	154	118	75.05	33	55	17	13	36

SEMESTER 4								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	84	64	76	17	38	8	01	20
MEB	66	51	77	12	19	12	08	15
TOTAL	150	115	76.5	29	57	20	03	35

SEMESTER 5								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	82	69	84	24	31	14	0	13
MEB	75	69	92	25	32	12	0	6
TOTAL	157	138	88	49	63	26	0	19

SEMESTER 6								
GROUP	APP.	PASS	%	A	B	C	D	E
BIO	82	63	77	25	33	5	0	19
MEB	75	68	91	36	30	2	0	7
TOTAL	157	131	83	61	63	7	0	26



MSc Zoology 2018-2019									
Sem	Paper	APP.	PASS	%	A	B	C	D	E
W-2018	I	19	13	68.42	00	01	03	09	06
I	II	19	18	94.73	00	05	08	05	01
I	III	19	19	100	02	06	05	06	00
I	IV	19	11	57.89	00	00	02	09	08
S-2018	I	19	11	57.89	00	08	08	02	00
II	II	19	11	57.89	01	03	04	04	06
II	III	19	11	57.89	06	11	02	00	00
II	IV	19	11	57.89	07	11	01	00	00
W-2018	I	19	10	52.63	00	01	02	07	09
III	II	19	18	94.73	00	06	04	08	01
III	III	19	17	89.47	01	04	07	05	02
III	IV	19	11	57.89	00	00	03	08	08
S-2018	I	17	17	100	01	09	02	05	00
IV	II	15	13	86.66	01	01	06	05	02
IV	III	16	11	68.75	00	06	05	00	05
IV	IV	17	15	88.23	01	06	04	04	02

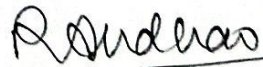
$$A+B+C = 19+38+27 = 84$$

Therefore % of students those have scored  $\geq 50$  % marks in final examination is

$$= 84 \times 100 / 150 = 56 \%$$

## Attainment table for the Academic session 2018-19

Programme	Course	% of enrolled students those have scored $\geq 50$ % marks in final examination (A+B+C)X100/(appeared students)	COs Attainment Level as per benchmark
B.Sc.	B.Sc. SEM I ZOO	74	LEVEL-3
	B.Sc. SEM II ZOO	80	LEVEL-3
	B.Sc. SEM III ZOO	68	LEVEL-2
	B.Sc. SEM IV ZOO	76	LEVEL-3
	B.Sc. SEM V ZOO	88	LEVEL-3
	B.Sc. SEM VI ZOO	83	LEVEL-3
M.Sc. Zoology	M.Sc. ZOO Sem I- ANIMAL STRUCTURE AND FUNCTION (NON-CHORDATA)	21	LEVEL-1
	M.Sc. ZOO Sem I- ANIMAL STRUCTURE AND FUNCTION (CHORDATA)	21	LEVEL-1
	M.Sc. ZOO Sem I- GAMETE BIOLOGY	21	LEVEL-1
	M.Sc. ZOO Sem I- GENES AND DIFFERENTIATION	10	LEVEL-1
	M.Sc. ZOO Sem II- MOLECULAR CELL BIOLOGY	84	LEVEL-3
	M.Sc. ZOO Sem II- TOOLS AND TECHNIQUES IN BIOLOGY	58	LEVEL-1
	M.Sc. ZOO Sem II- ENDOCRINOLOGY	69	LEVEL-2
	M.Sc. ZOO Sem II- Ecology and ENVIRONMENT	63	LEVEL-2
	M.Sc. ZOO Sem III- MOLECULAR CYTOGENETICS- I	53	LEVEL-1
	M.Sc. ZOO Sem III- MOLECULAR CYTOGENETICS- II	53	LEVEL-1
	M.Sc. ZOO Sem III- Animal Physiology -I	64	LEVEL-2
	M.Sc. ZOO Sem III- Animal Physiology -II	16	LEVEL-1
	M.Sc. ZOO Sem IV- Biochemistry	71	LEVEL-3
	M.Sc. ZOO Sem IV- ENZYMOLOGY AND BIOSTATISTICS	54	LEVEL-1
	M.Sc. ZOO Sem IV- Animal Physiology -III	69	LEVEL-2
	M.Sc. ZOO Sem IV- Animal Physiology -IV	65	LEVEL-2

  
**Dr. R.G. Jadhao**  
 Professor & Head  
 Dept. Of Zoology  
 Shri Shivaji Science College,  
 Amravati.

## Evaluation of Attainment of POs and PSOs (2018-19)

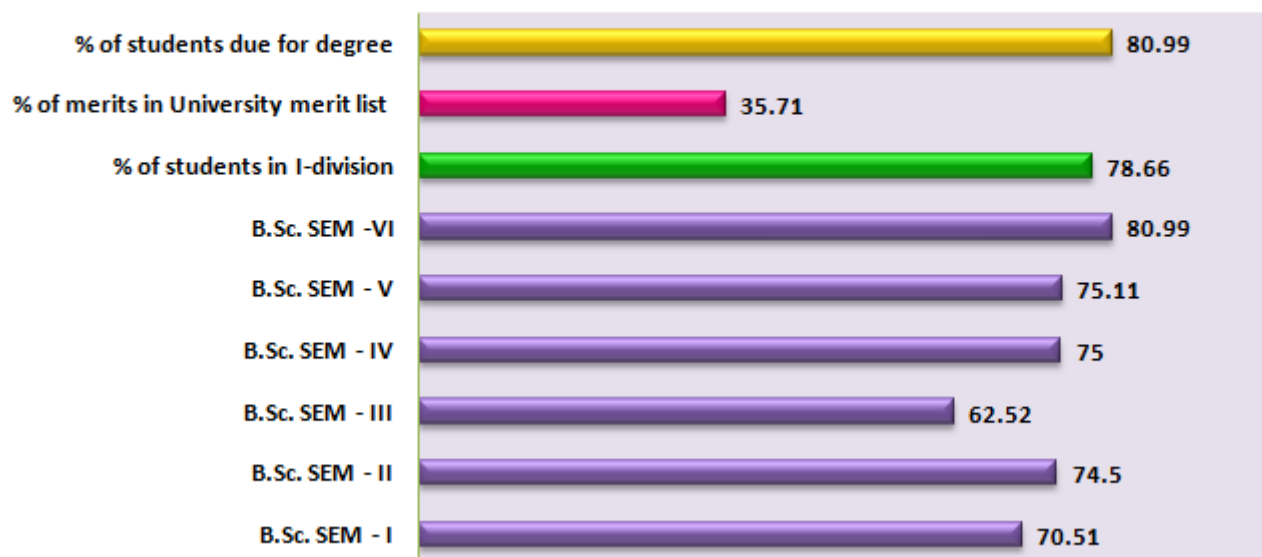
Programmes	Average attainment level of all courses of B.Sc. Programme	% of students in I <sup>st</sup> Division	% of students due for degree	% of merit students in the merit list of the university	Level of attainment of PSOs
B.Sc.	LEVEL-3 <i>(above 70 % of passed students have scored more than 50% marks)</i>	63.71	81	35.71	
B.C.A.	LEVEL-3	35.55	80	0	LEVEL-2
M.Sc. Botany	LEVEL-3	30	50	0	LEVEL-2
M.Sc. Bioinformatics	LEVEL-3	45	50	100	LEVEL-3
M.Sc. Chemistry	LEVEL-3	23	77	0	LEVEL-2
M.Sc. Computer Software	LEVEL-3	53.8	88	100	LEVEL-3
M.Sc. Environmental Science	LEVEL-3	31.8	91	66.66	LEVEL-2
M.Sc. Physics	LEVEL-3	28.6	67	0	LEVEL-2
M.Sc. Zoology	LEVEL-3	16	32	0	LEVEL-2



## Evaluation of Attainment of COs, PSOs and POs Through result Analysis (2018-19)

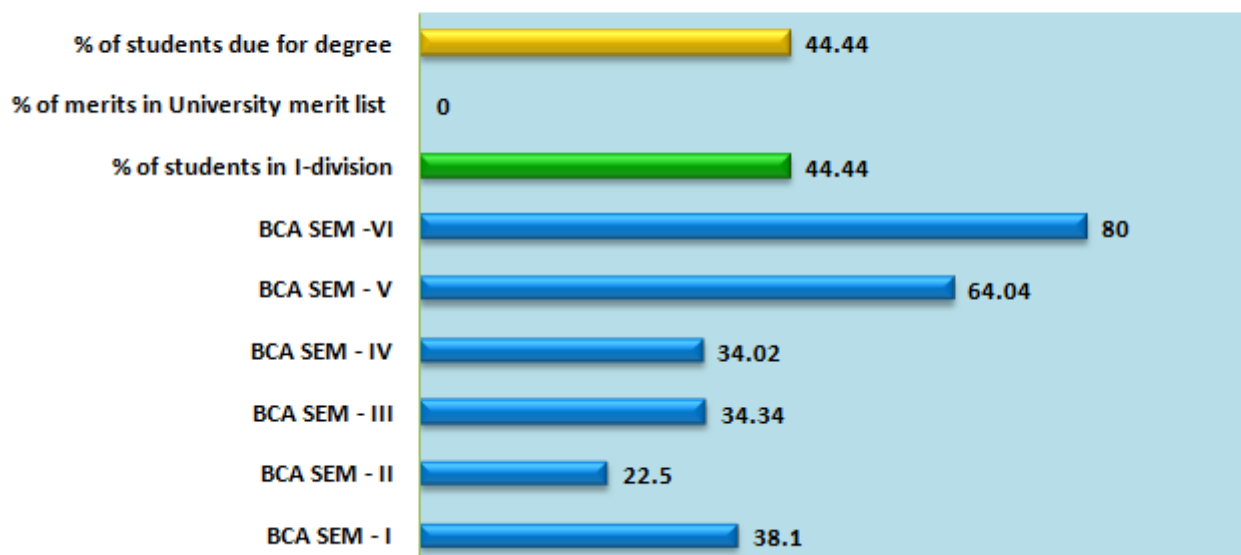
### Result analysis (2018-19)

#### B.Sc. Programme



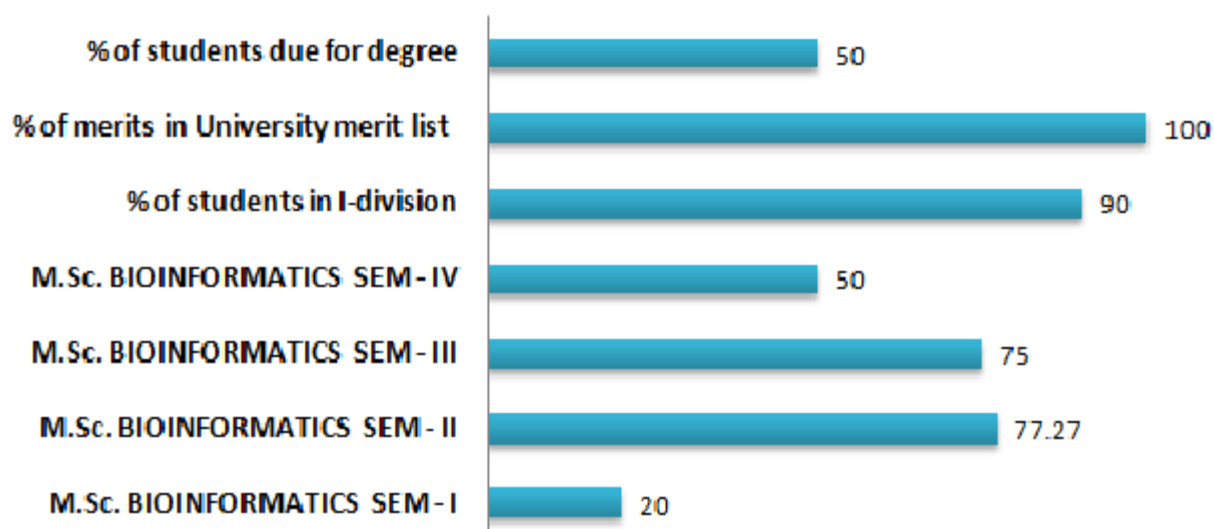
### Result analysis (2018-19)

#### B.C.A. Programme



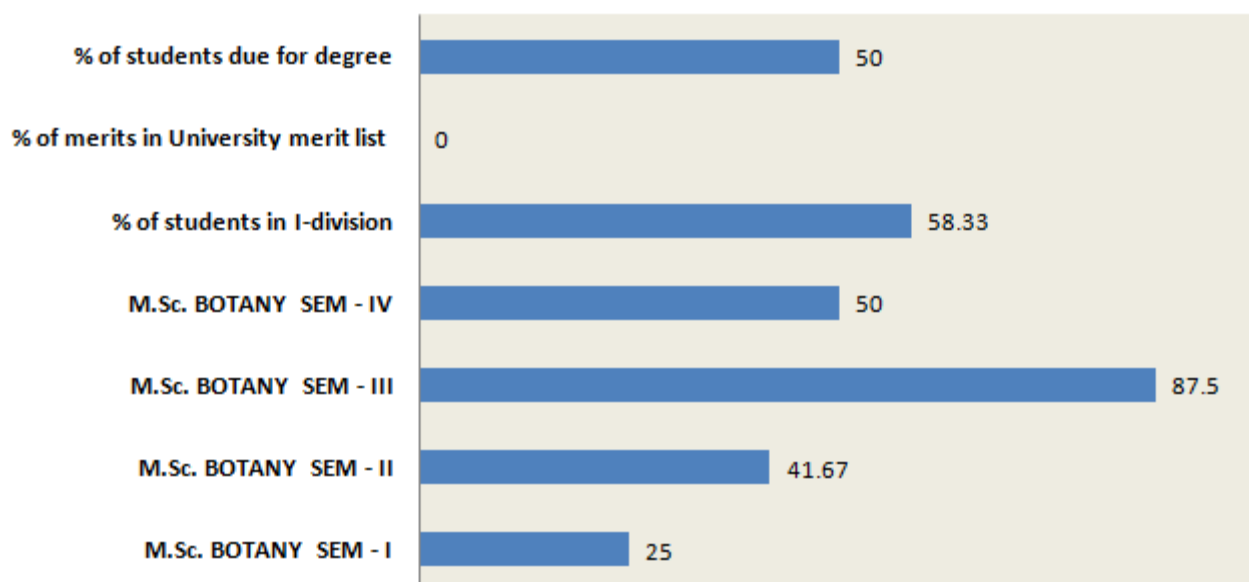
## Results analysis (2018-19)

### M.Sc Bioinformatics



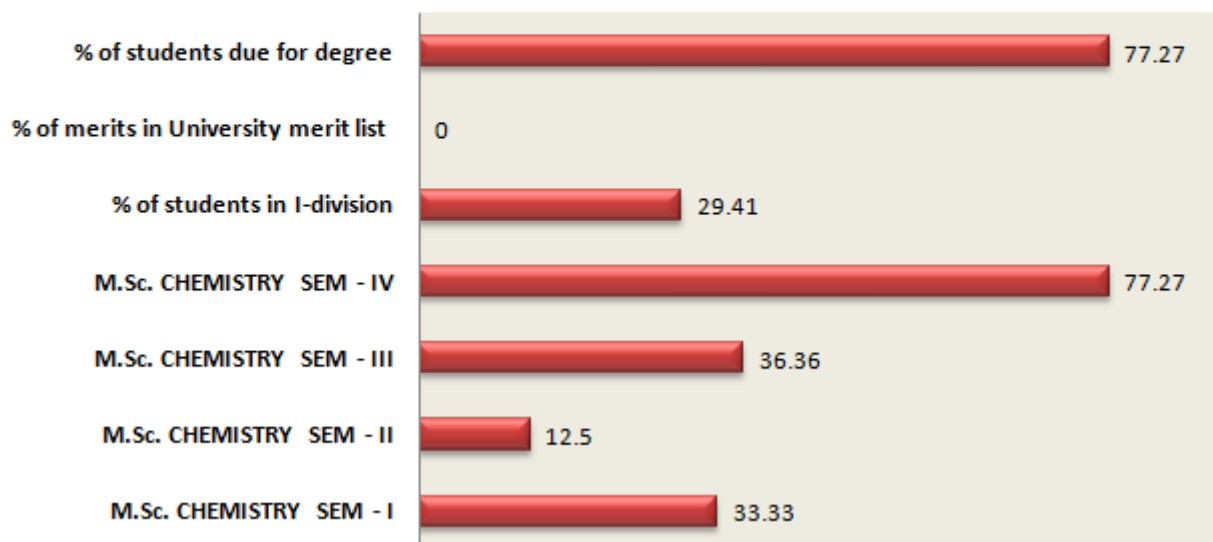
## Results analysis (2018-19)

### M.Sc Botany



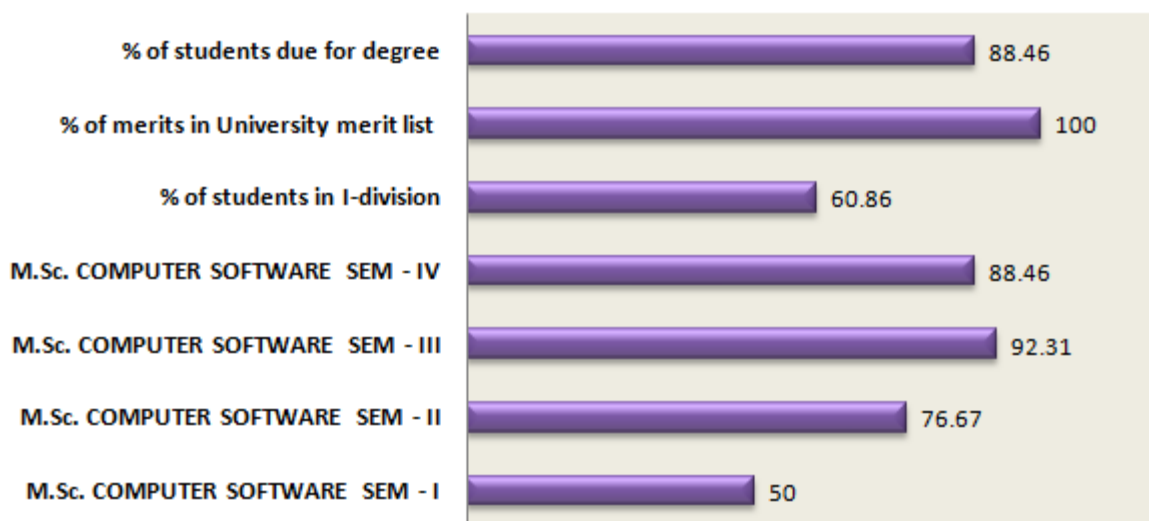
## Results analysis (2018-19)

### M.Sc. Chemistry



## Results analysis (2018-19)

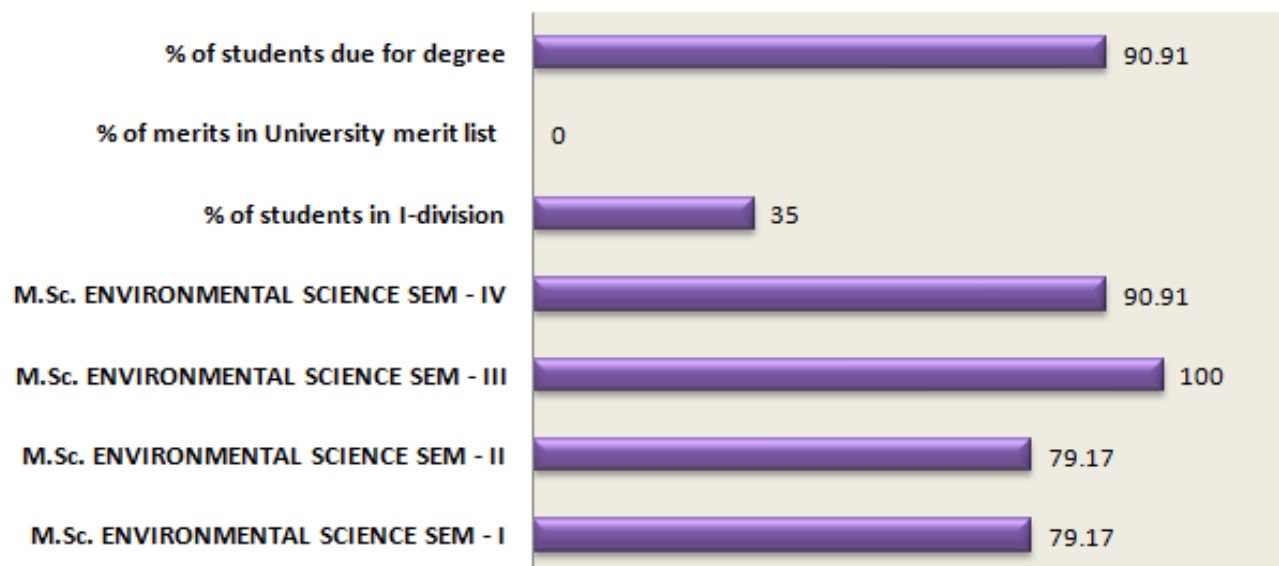
### M.Sc. Computer Software





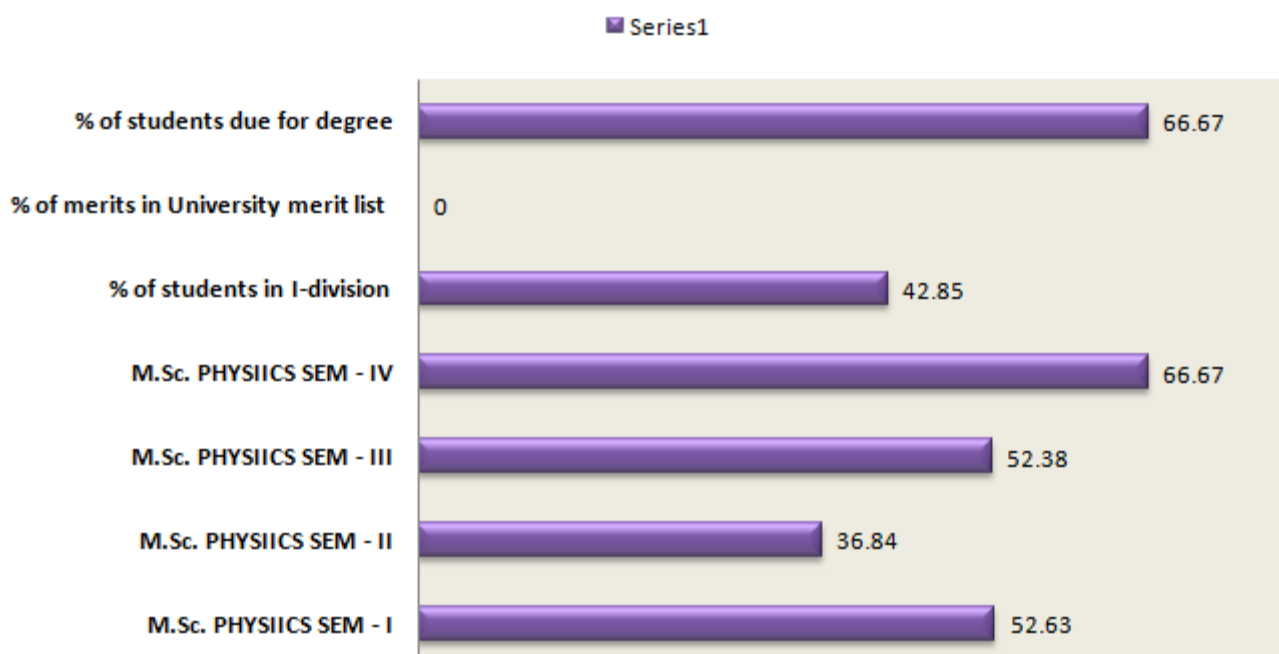
## Results analysis (2018-19)

### M.Sc. Environmental Science



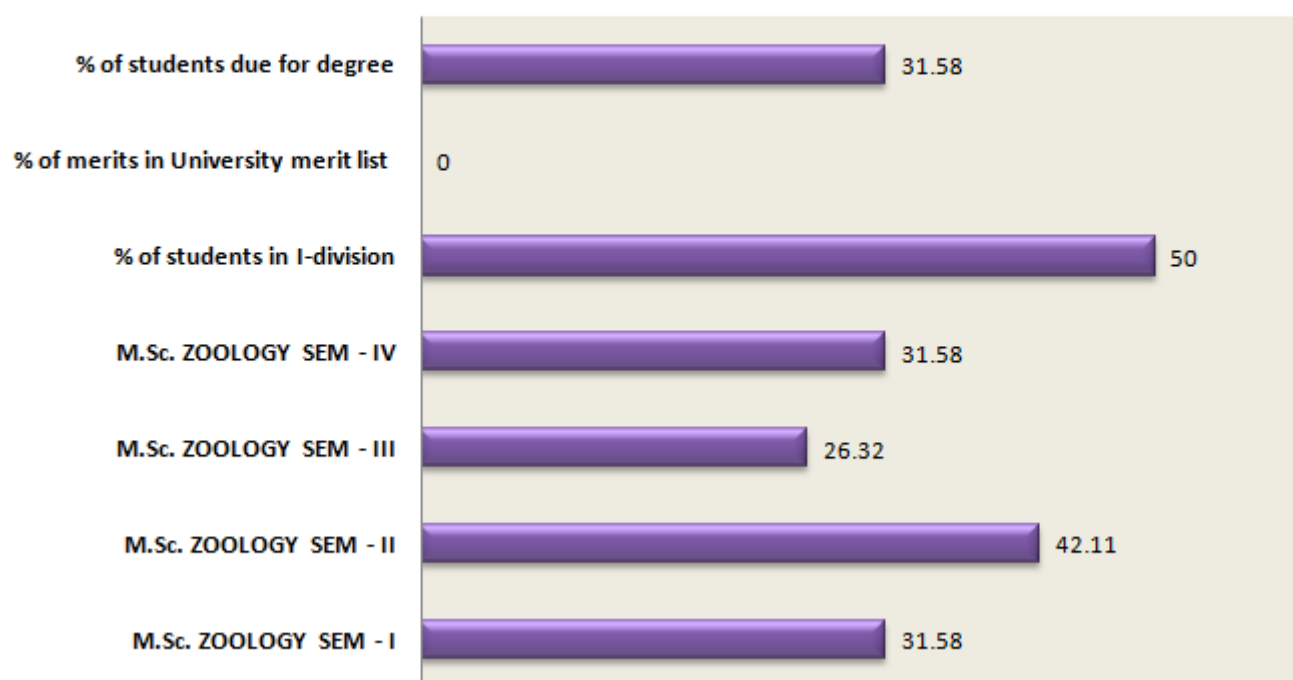
## Results analysis (2018-19)

### M.Sc. Physics



## Results analysis (2018-19)

### M.Sc. Zoology

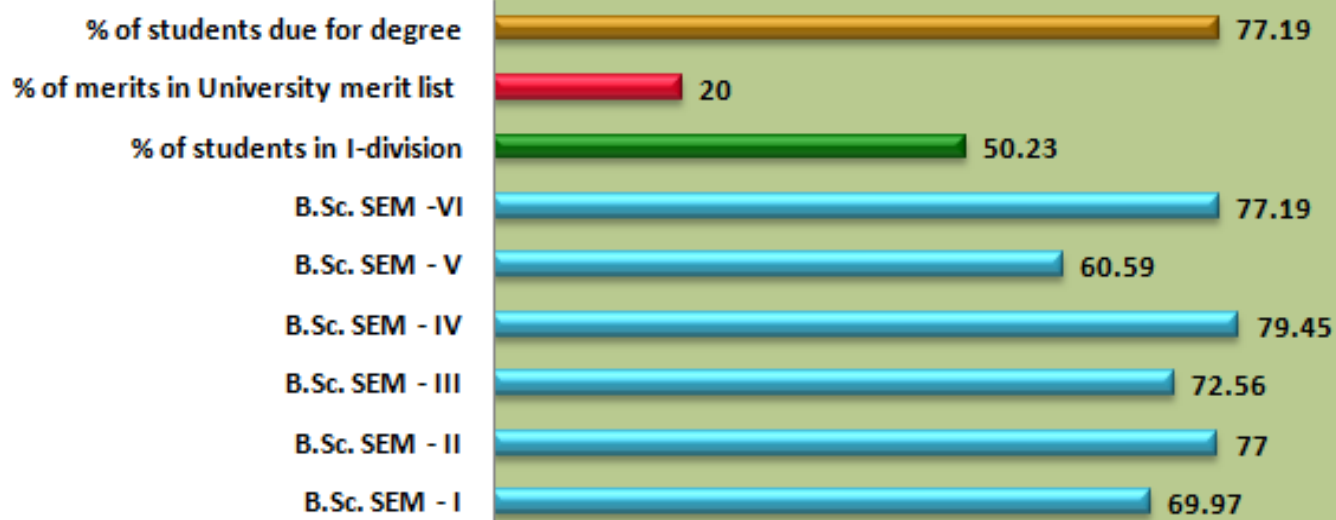


## 2017-18

### Evaluation of Attainment of COs, PSOs and POs Through result Analysis (2017-18)

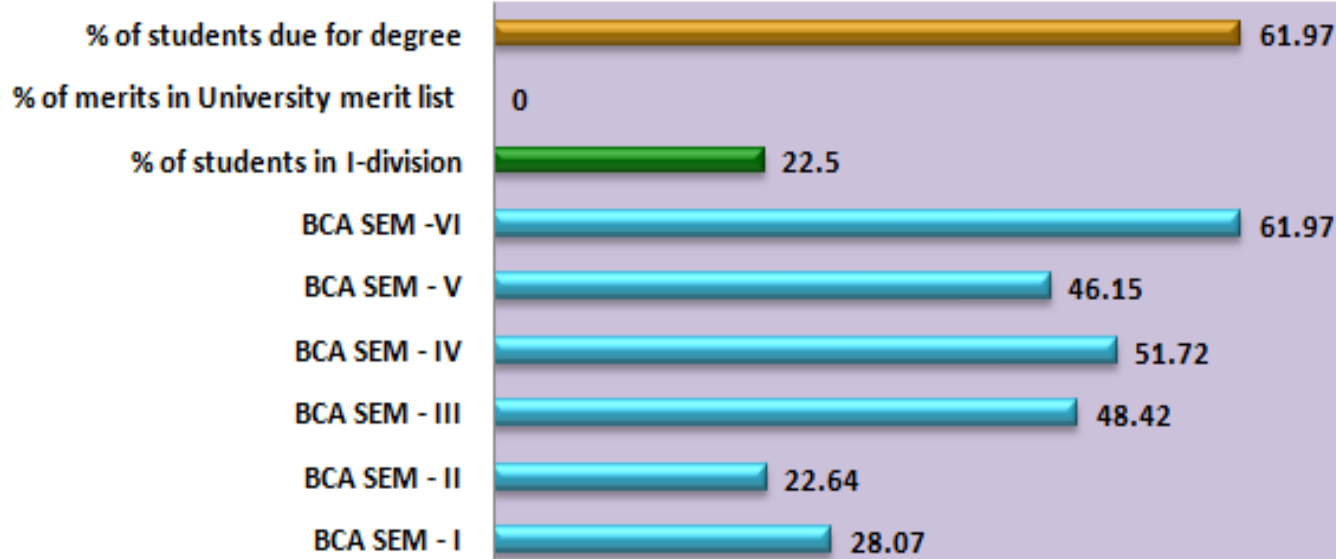
#### Result analysis (2017-18)

##### B.Sc. Programme



#### Result analysis (2017-18)

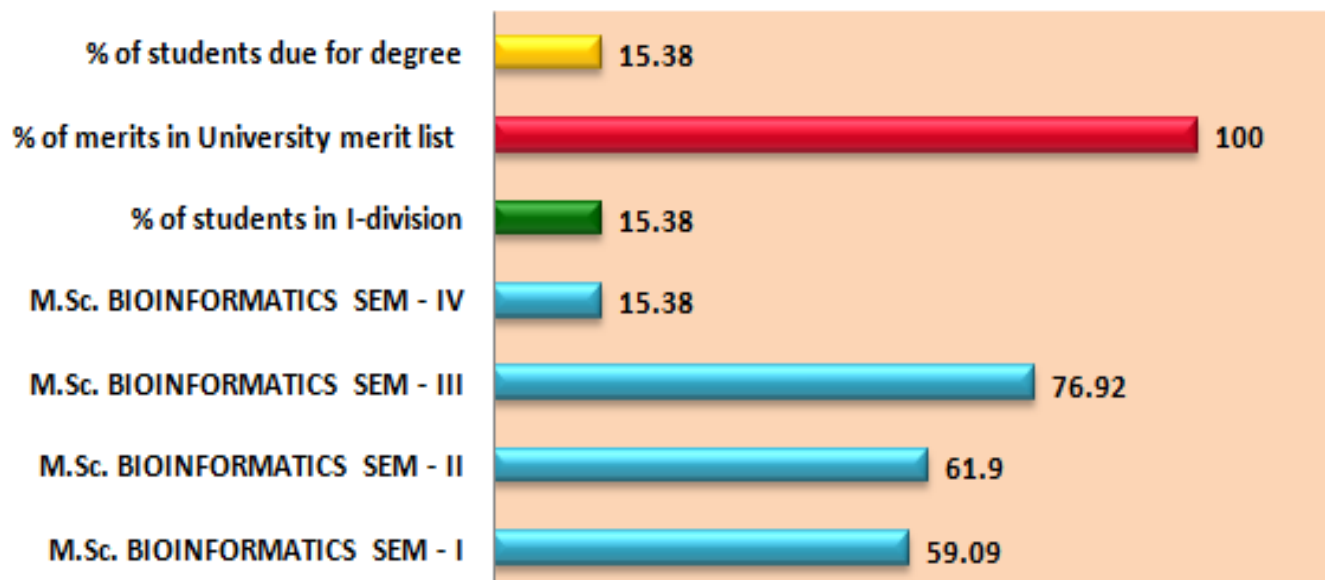
##### B.C.A. Programme





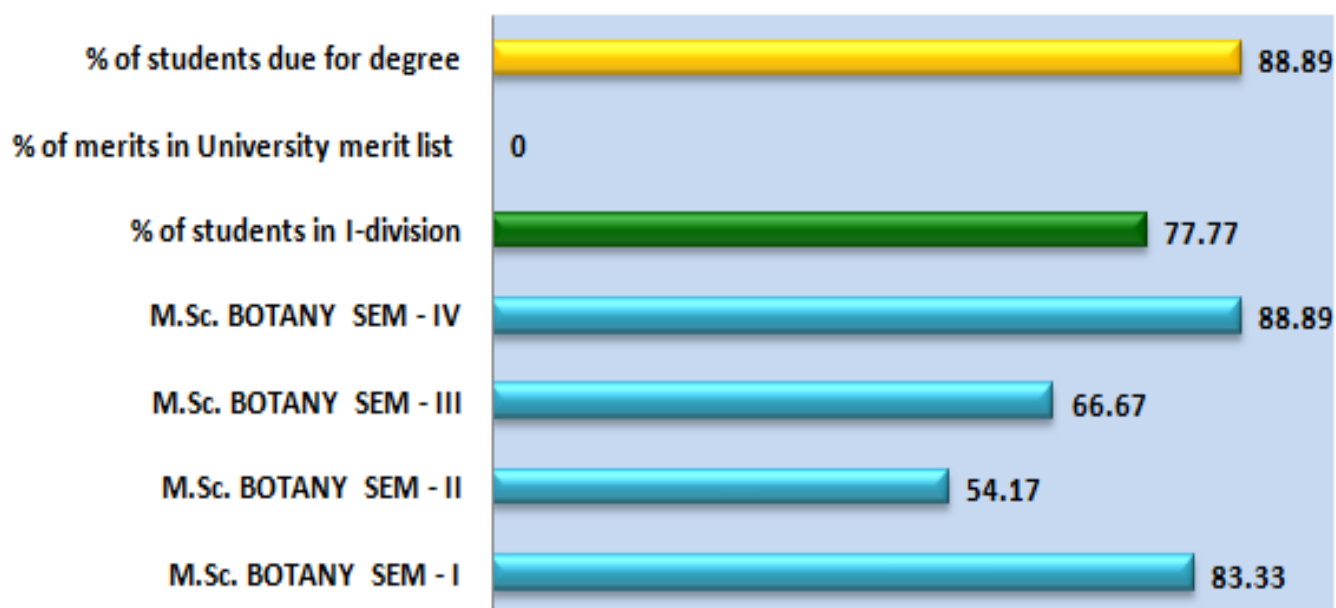
## Result analysis (2017-18)

### M.Sc. Bioinformatics Programme



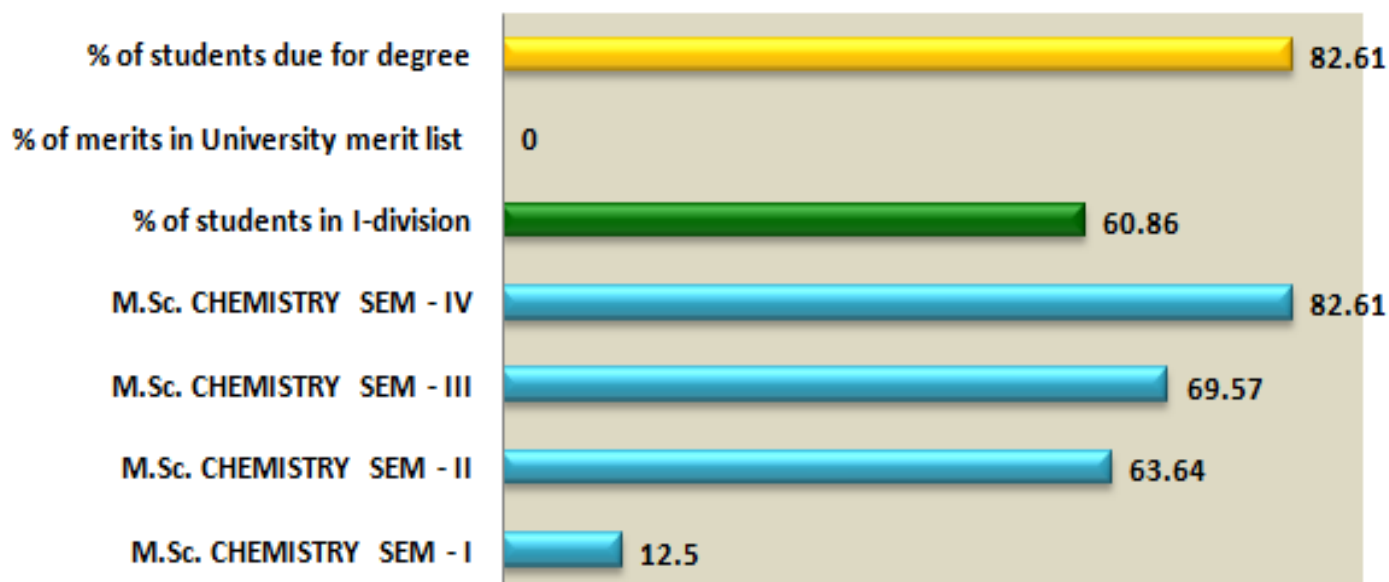
## Result analysis (2017-18)

### M.Sc. Botany Programme



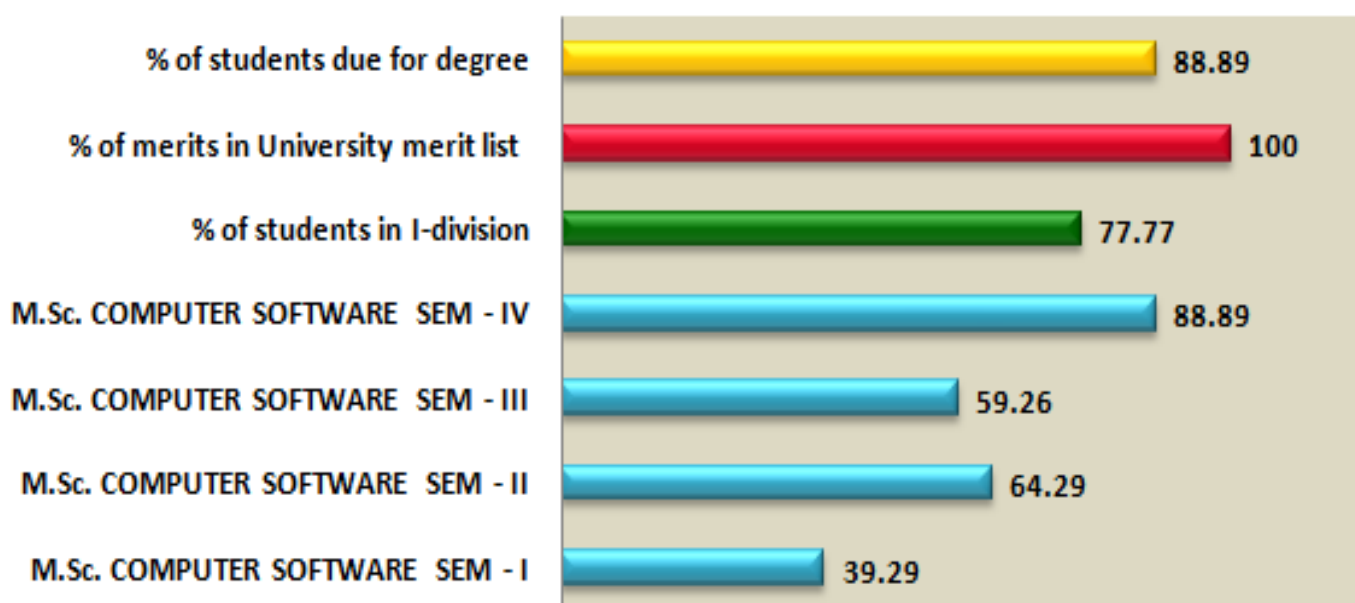
## Result analysis (2017-18)

### M.Sc. Chemistry Programme



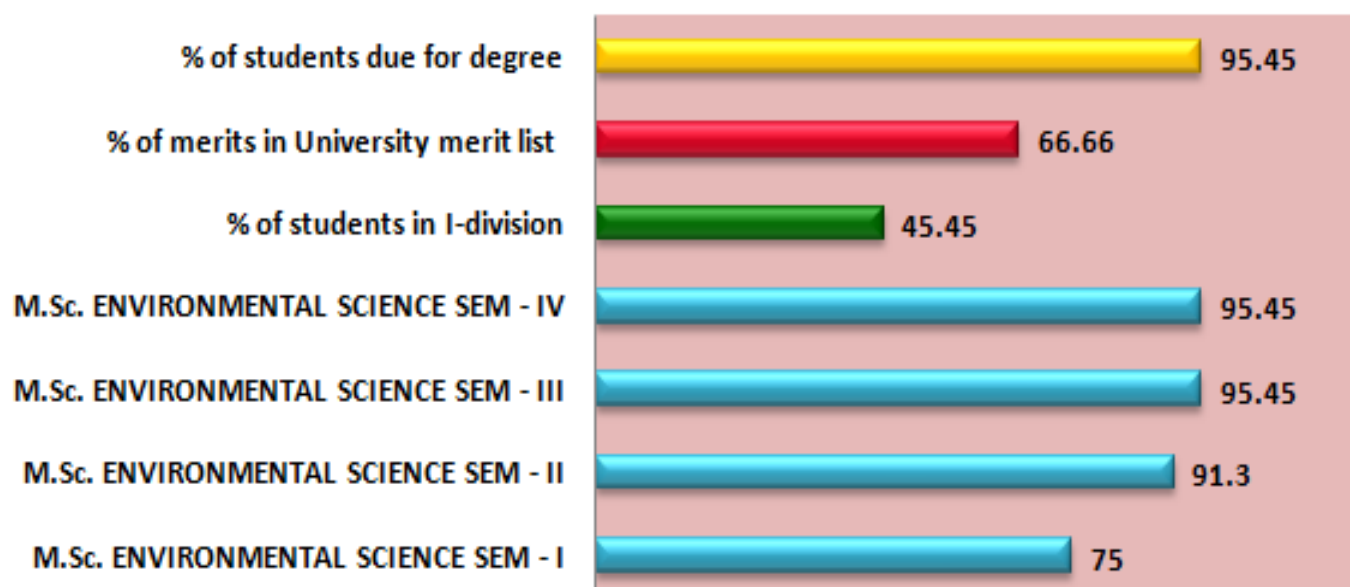
## Result analysis (2017-18)

### M.Sc. Computer Software Programme



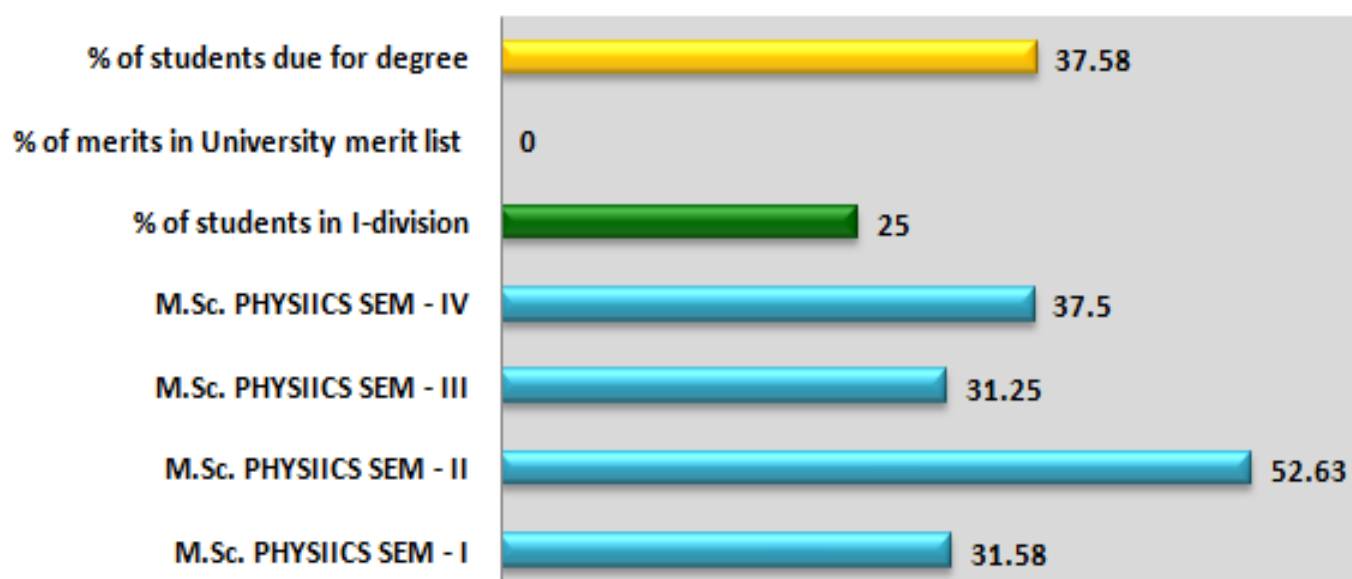
## Result analysis (2017-18)

### M.Sc. Environmental Science Programme



## Result analysis (2017-18)

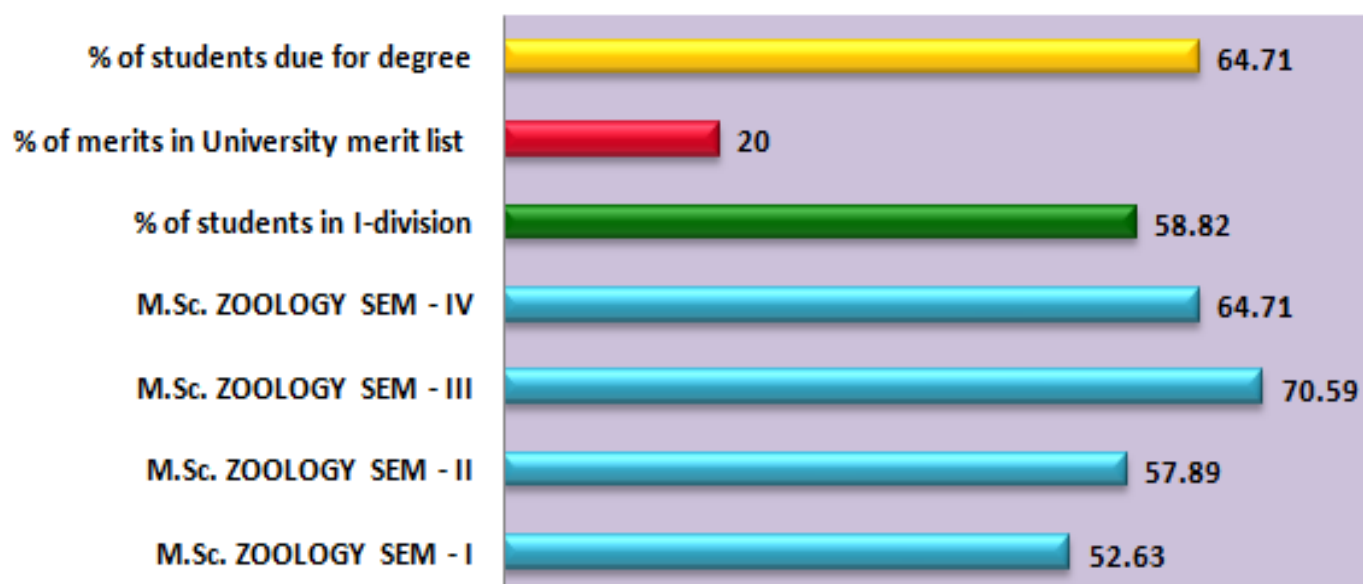
### M.Sc. Physics Programme





## Result analysis (2017-18)

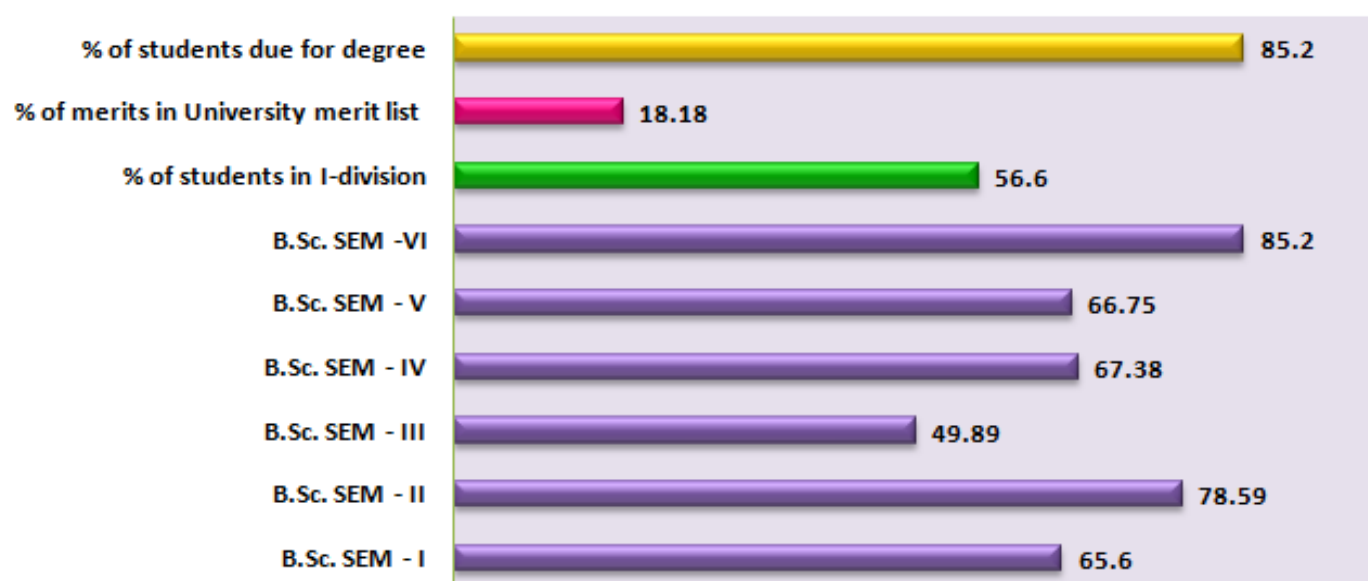
### M.Sc. Zoology Programme



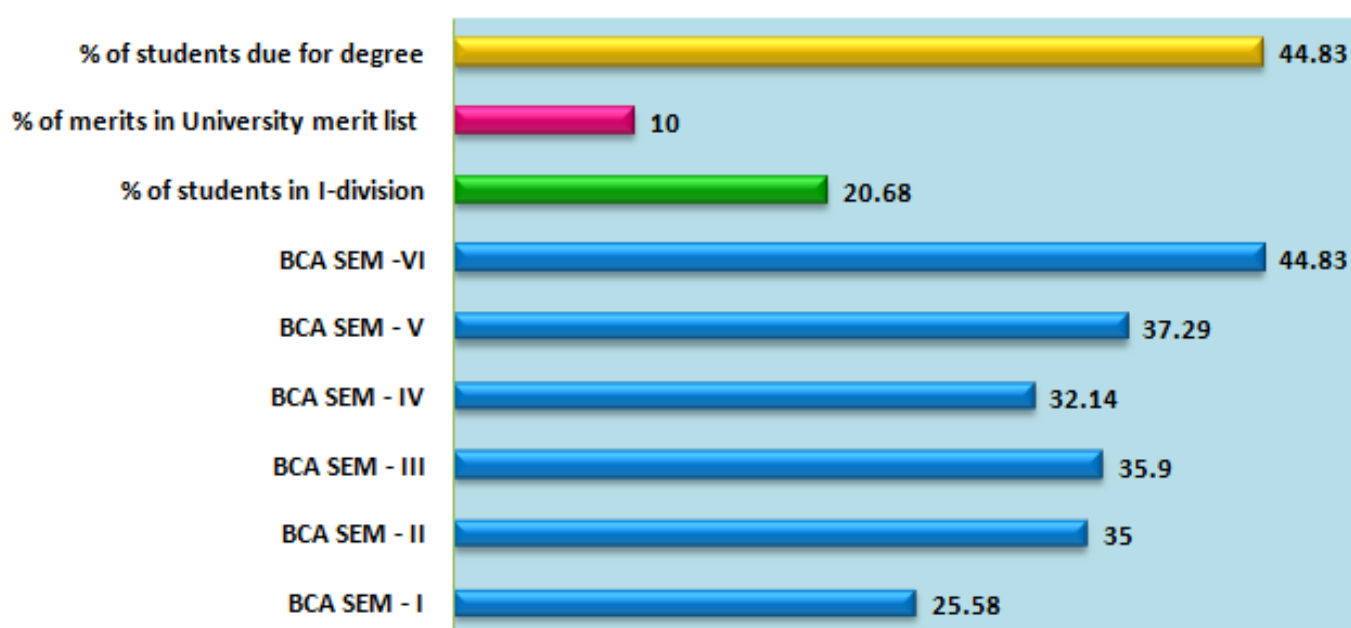
## 2016-17

### Evaluation of Attainment of POs and PSOs through Result Analysis (2016-17)

#### Result analysis (2016-17) B.Sc. Programme

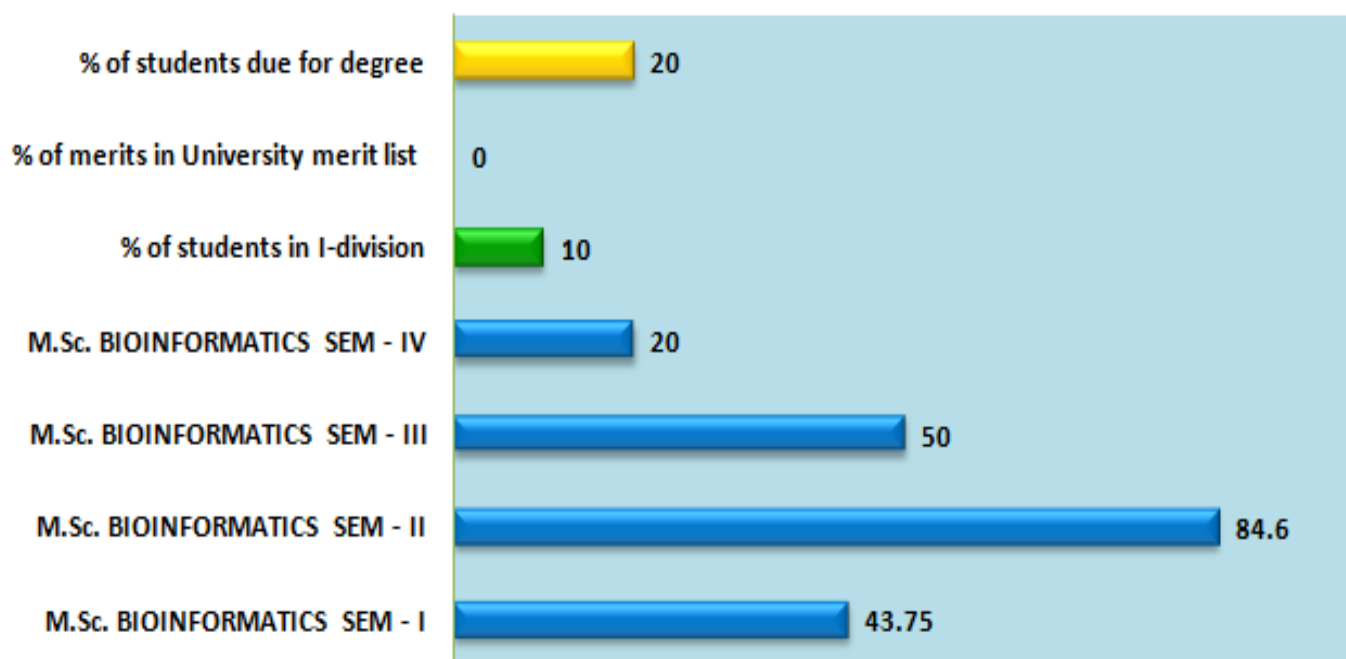


#### Result analysis (2016-17) B.C.A. Programme



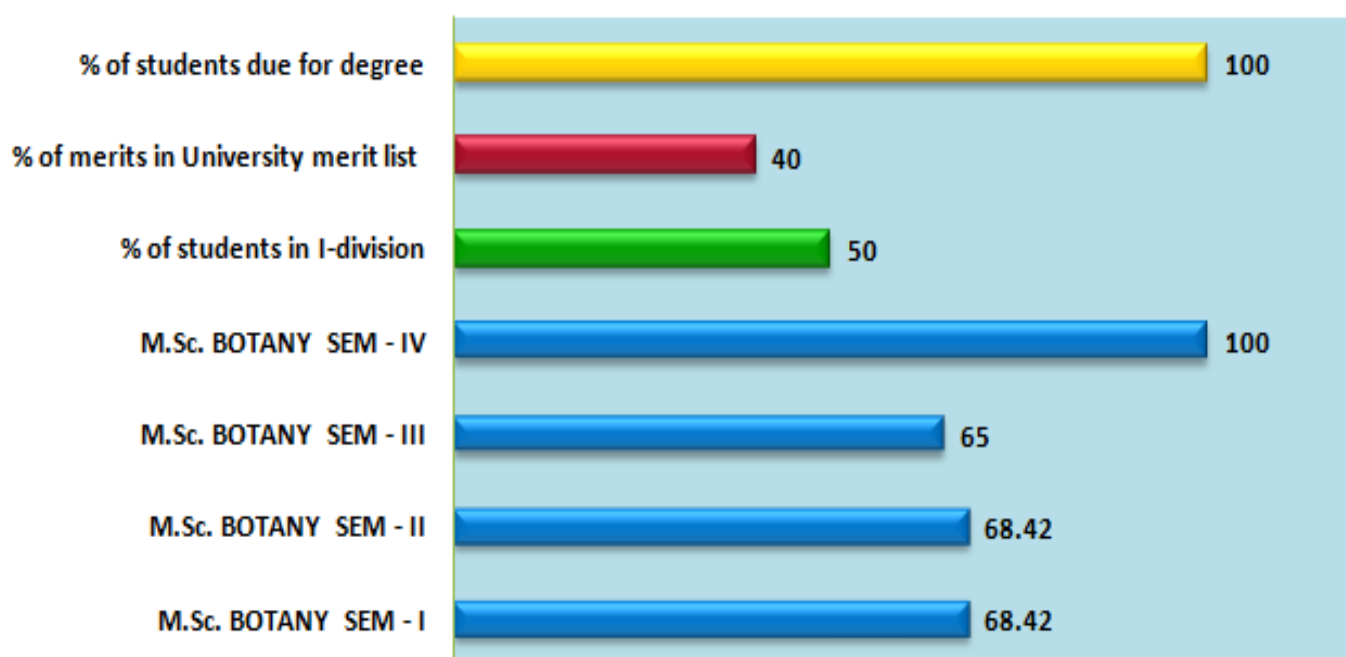
## Result analysis (2016-17)

### M.Sc. Bioinformatics Programme



## Result analysis (2016-17)

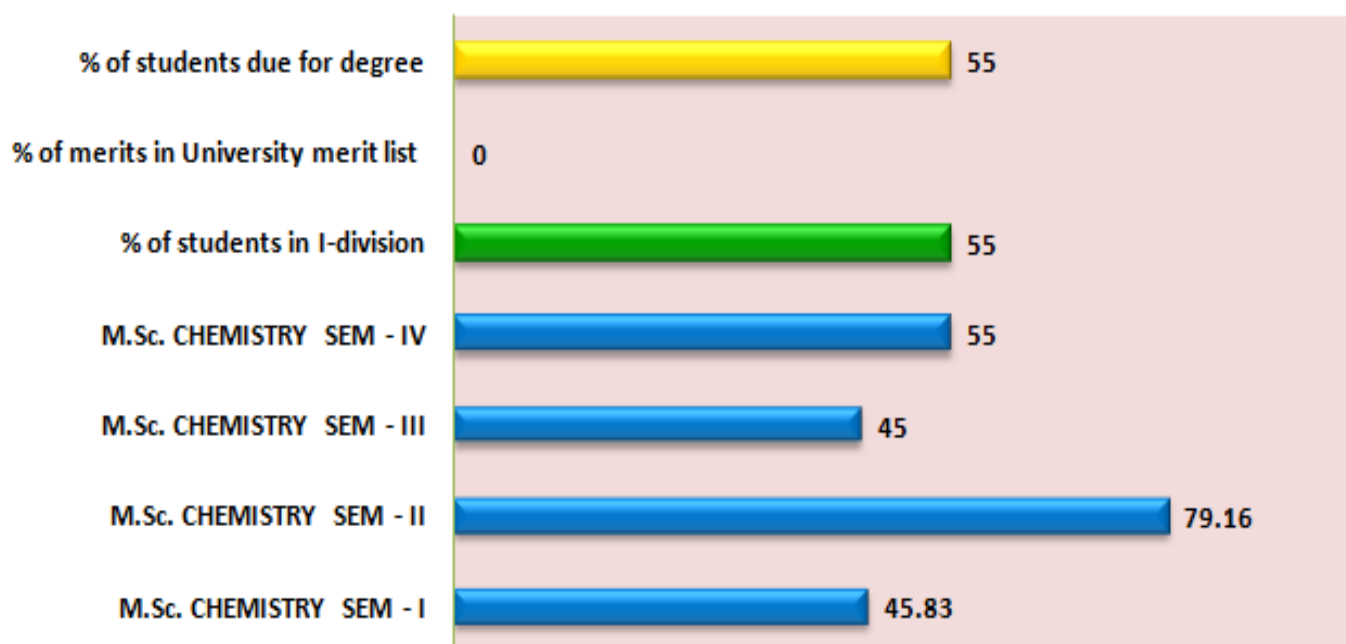
### M.Sc. Botany Programme





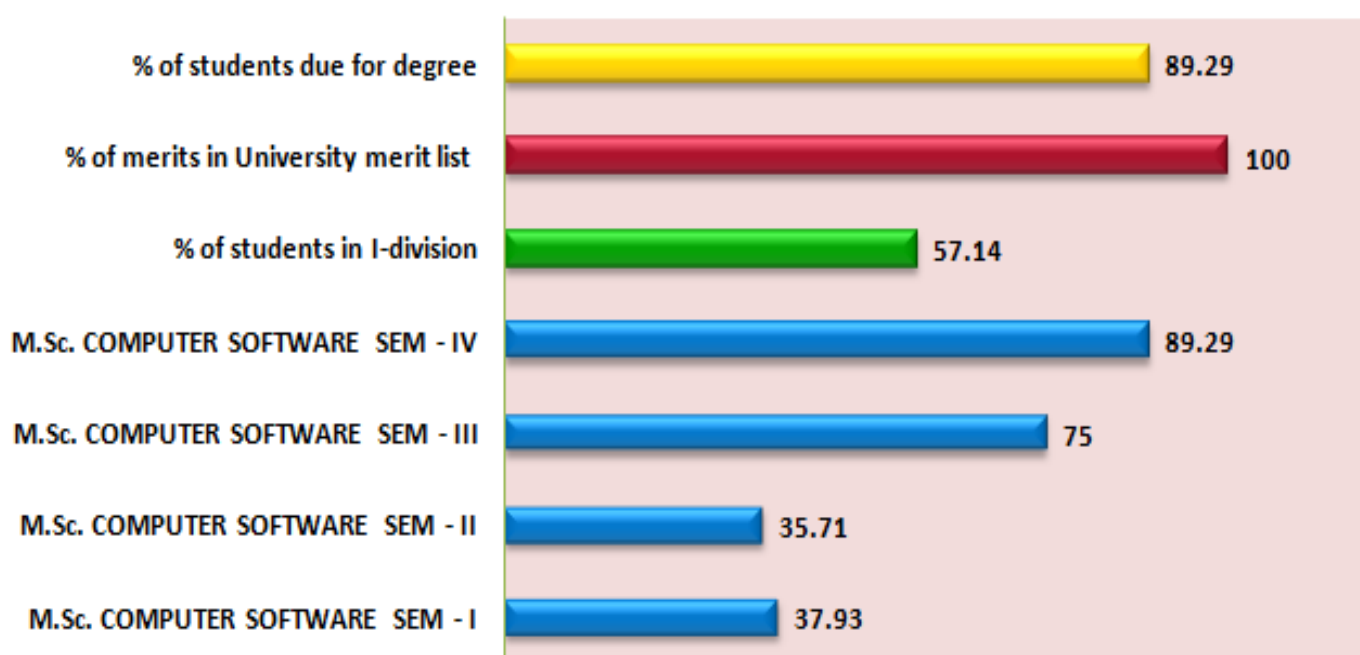
## Result analysis (2016-17)

### M.Sc. Chemistry Programme



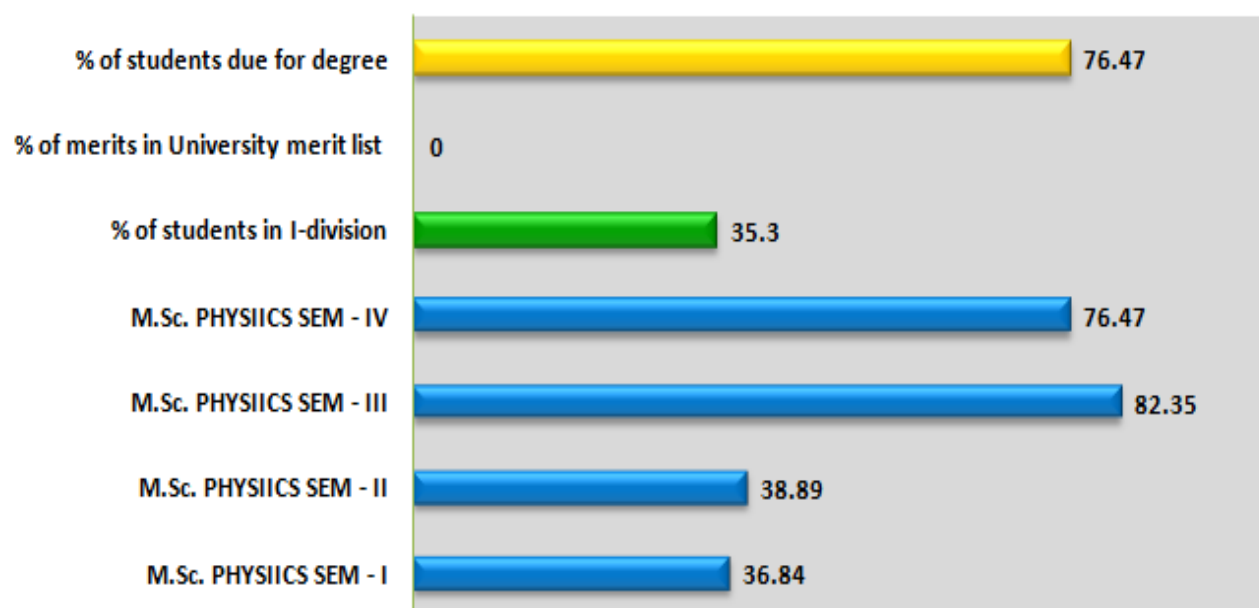
## Result analysis (2016-17)

### M.Sc. Computer Software Programme



## Result analysis (2016-17)

### M.Sc. Physics Programme



## Result analysis (2016-17)

### M.Sc. Zoology Programme

