

CHAITANYA (DEEMED TO BE UNIVERSITY)**SCIENCE FACULTY DEPARTMENTS****Credit Pattern, Instruction Hours, Marks Allotment.****[With effect from the academic year 2020-21 Under CBCS system]****M.Sc BIOTECHNOLOGY****Semester –I**

S. No	Paper Code	Title of the paper	Instruction Hrs/ Week	No. of Credits	Marks		Total marks
					Internal	External	
1	Core I	Cell Biology	4	4	30	70	100
2	Core II	Genetics & Biodiversity	4	4	30	70	100
3	Core III	Microbiology	4	4	30	70	100
4	Core IV	Biophysical & Biochemical Techniques	4	4	30	70	100
5	Lab - I	Cell Biology-Lab	3	2	15	35	50
6	Lab –II	Genetics & Biodiversity-Lab	3	2	15	35	50
7	Lab – III	Microbiology-Lab	3	2	15	35	50
8	Lab - IV	Biophysical & Biochemical Techniques-Lab	3	2	15	35	50
9		Seminar	3	2	15	35	50
		TOTAL		26	195	455	650

Semester –II

S. No	Paper Code	Title of the paper	Instruction Hrs/ Week	No. of Credits	Marks		Total marks
					Internal	External	
1	Core I	Cell and Tissue Culture Technology	4	4	30	70	100
2	Core II	Biochemistry	4	4	30	70	100
3	Core III	Molecular Biology	4	4	30	70	100
4	Core IV	Microbial & Industrial Biotechnology	4	4	30	70	100
5	Lab - I	Cell and Tissue Culture Technology - Lab	3	2	15	35	50
6	Lab –II	Biochemistry-Lab	3	2	15	35	50
7	Lab – III	Molecular Biology-Lab	3	2	15	35	50
8	Lab - IV	Microbial & Industrial Biotechnology-Lab	3	2	15	35	50
9		Seminar	3	2	15	35	50
		TOTAL		26	195	455	650

III Semester

S. No	Paper Code	Title of the paper	Instruction Hrs/ Week	No. of Credits	Marks		Total marks
					Internal	External	
1	Core I	Immunology	4	4	30	70	100
2	Core II	Bioinformatics	4	4	30	70	100
3	Core III	Fermentation & Bioprocess Engineering	4	4	30	70	100
4	Core IV	Plant & Agriculture Biotechnology	4	4	30	70	100
5	Lab - I	Immunology - Lab	3	2	15	35	50
6	Lab -II	Bioinformatics -Lab	3	2	15	35	50
7	Lab - III	Fermentation & Bioprocess Engineering -Lab	3	2	15	35	50
8	Lab - IV	Plant & Agriculture Biotechnology - Lab	3	2	15	35	50
9	SEC	Option – I Option –II	2	2	15	35	50
10		Seminar	3	2	15	35	50
11		Oral / Poster presentation in conference		2	15	35	50
		TOTAL		30	225	525	750

IV Semester

S. No	Paper Code	Title of the paper	Instruction Hrs/ Week	No. of Credits	Marks		Total marks
					Internal	External	
1	Core I	Animal and Medical Biotechnology	4	4	30	70	100
2	Core II	Concepts of Clinical Research	4	4	30	70	100
3	Core III	Environmental Biotechnology	4	4	30	70	100
4	Core IV	Genetic Engineering	4	4	30	70	100
5	Lab - I	Animal and Medical Biotechnology - Lab	3	2	15	35	50
6	Lab -II	Concepts of Clinical	3	2	15	35	50

		Research -Lab					
7	Lab – III	Environmental Biotechnology - Lab	3	2	15	35	50
8	Lab - IV	Genetic Engineering - Lab	3	2	15	35	50
9	SEC	Option – I Option –II	2	2	15	35	50
10		Seminar	3	2	15	35	50
11		Community Service & Project		2	15	35	50
		TOTAL		30	225	525	750

SUMMARY

Semester	No. of credits	Marks
I	26	650
II	26	650
III	30	750
IV	30	750
Total	112	2800

Marks Distribution:**Theory:****Internal Marks: 30**

First Internal – 10 marks

Second Internal – 10 marks

Assignment – 10 marks

External Marks : 70

Sections – A

10 Shorts questions (2 questions from each chapter, 9th from I & II Unit, 10th from III & IV unit)

6 questions to be answered

$6 \times 5 = 30$ marks

Section –B

4 Long questions with internal choice from each chapter

$4 \times 10 = 40$

Practical:

Internal Marks: 15

5 marks for attendance

10 marks for internal exam

External Marks: 35

5 marks for record

5 marks for viva-voce (written or oral)

25 marks for experiment

QUESTION PAPER PATTERN

FACULTY OF SCIENCE

M.Sc.

Title of the Paper: XXXXXX

Duration: 3 Hours]

[Max Marks=70M

SECTION-A

Short Answer type questions

Answer any SIX questions

[6 X 5 = 30M]

1. UNIT-I
2. UNIT-I
3. UNIT-II
4. UNIT-II
5. UNIT-III
6. UNIT-III
7. UNIT-IV
8. UNIT-IV
9. UNIT- I&II
10. UNIT- III&IV

SECTION-B

Essay Answer type question

Answer all questions

[4 X 10 = 40M]

11. A) UNIT – I
OR
B) UNIT - I
12. A) UNIT – II
OR
B) UNIT – II
13. A) UNIT – III
OR
B) UNIT – III
14. A) UNIT – IV
OR
B) UNIT - IV