

4 year B. Tech. Degree Course – Biotechnology w.e.f. 2022-23 Batch

FIRST SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	15B11MA112	Basic Mathematics-1	3	1	-	4	4
2.	15B11PH112	Physics for Biotechnology	3	1	-	4	4
3.	18B11CI111	Fundamentals of Computers & Programming - I	3	1	-	4	4
4.	15B11HS112	English	2	0	2	4	3
5.	15B17PH171	Physics Lab-1	-	-	2	2	1
6.	18B15CI111	Computer Programming Lab-I	-	-	4	4	2
7.	18B15GE112	Workshop	-	-	3	3	1.5
		TOTAL				27	19.5

SECOND SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	15B11MA212	Basic Mathematics-2	3	1	-	4	4
2.	15B11PH212	Biophysical Techniques	3	1	-	4	4
3.	15B11EC111	Electrical Science-I	3	1	-	4	4
4.	18B11CI121	Fundamentals of Computers & Programming - II	3	1	-	4	4
5.	18B15BT111	Basic Bioscience Lab	-	-	2	2	1
6.	15B17EC171	Electrical Science Lab-I	-	-	2	2	1
7.	18B15CI121	Computer Programming Lab-II	-	-	2	2	1
8.	22B12HS111	Life Skills and Effective Communication	1	-	2	3	2
9.	18B15GE111	Engineering Drawing & Design	-	-	3	3	1.5
		TOTAL				28	22.5

THIRD SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	15B11MA302	Probability and Statistics	3	1	-	4	4
2.	15B11BT211	Biochemistry	3	1	-	4	4
3.	15B11BT311	Thermodynamics and Chemical Processes	3	1	-	4	4
4.	19B13BT211	Environmental Studies	3	-	-	3	Qualifying
5.	15B17BT271	Biochemical Techniques Lab	-	-	2	2	1
6.	15B17BT371	Thermodynamics and Chemical Processes Lab	-	-	2	2	1
7.	15B11EC211	Electrical Science-II	3	1	-	4	4
8.	15B17EC271	Electrical Science Lab-II	-	-	2	2	1
9.	15B11HS211	Economics	2	1	-	3	3
10.	22B15HS211	Professional Communication Practice	-	-	2	2	Qualifying
		TOTAL				30	22

FOURTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	Xxxxxx	HSS Elective – 1	2	1	-	3	3
2.	15B11BT312	Microbiology	3	1	-	4	4
3.	15B11BT313	Genetics and Developmental Biology	3	1	-	4	4
4.	15B11BT411	Introduction to Bioinformatics	3	1	-	4	4
5.	15B17BT372	Microbiology Lab	-	-	2	2	1
6.	15B17BT373	Genetics and Developmental Biology Lab	-	-	2	2	1
7	15B17BT471	Bioinformatics Lab	-	-	2	2	1
		TOTAL				21	18

FIFTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	Xxxxxx	HSS Elective-2	3	-	-	3	3
2.	15B11BT412	Molecular biology and Genetic Engineering	3	-	-	3	3
3.	Xxxxxx	Discipline Elective -1	3	-	-	3	3
4.	Xxxxxx	Science Elective	3	-	-	3	3
5.	15B19BT591	Minor Project – 1	-	-	4	4	2
6.	15B17BT472	Genetic Engineering Lab	-	-	2	2	1
7.	18B15BT311	Industrial Biotechnology Lab-1	-	-	2	2	1
8.	15B17BT571	Cell Culture Lab	-	-	2	2	1
9	15B11BT511	Cell Culture Technology	3	1	-	4	4
10	15B17CI577	IT Practice Lab	-	-	2	2	1
11	20B13HS311	Indian Constitution & Traditional Knowledge	3	-	-	3	Qualifying
		TOTAL				31	22

SIXTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	15B11BT414	Immunology	3	-	-	3	3
2.	Xxxxxx	Discipline Elective – 2	3	-	-	3	3
3.	Xxxxxx	Discipline Elective - 3	3	-	-	3	3
4.	Xxxxxx	Open Elective - 1	3	-	-	3	3
		Selected Value Added Course	2	-	-	2	Audit
5.	15B17BT474	Immunology Lab	-	-	2	2	1
6.	15B19BT691	Minor Project-2	-	-	4	4	2
7	15B11BT611	Comparative and Functional Genomics	3	1	-	4	4
8	15B17BT671	Comparative and Functional Genomics Lab	-	-	2	2	1
9	Xxxxxx	HSS Elective - 3	2	1	-	3	3
		TOTAL				27/29	23

SEVENTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	Xxxxxx	Discipline Elective – 4	3	-	-	3	3
2.	Xxxxxx	Discipline Elective – 5	3	-	-	3	3
3.	Xxxxxx	Discipline Elective - 6	3	-	-	3	3
4.	Xxxxxx	Open Elective - 2	3		-	3	3
5.	15B19BT794	Major Project Part-1	-	-	8	8	4
6	15B19BT793	Summer Training Viva	-	-	-	-	Qualifying
		TOTAL				20	16

EIGHTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	Xxxxxx	Discipline Elective – 7	3		-	3	3
2.	Xxxxxx	Discipline Elective - 8	3		-	3	3
3.	Xxxxxx	Open Elective -3	3		-	3	3
4.	15B19BT891	Major Project Part-2	-	-	16	16	8
		TOTAL				25	17

Total Credits for B. Tech. –160