IES UNIVERSITY, BHOPAL

IES Campus Kalkheda, Ratibad Main Road, Bhopal (M.P.) – 462044

New Scheme of Examination (NEP Based)

Bachelor of Science (B.Sc. Biotechnology)

W.E.F JULY 2024

I Semester

S No	Course Code	Category	Course Name	Maximum Marks Allocated				Practical Max		Tot.	Contact Hours per Week			
				Theory										
				Mid Term	Attendance	Continuous Assessment	End Term	End Term	Continuous Assessment		L	T	P	Total Credits
1	CHM 124	GEC	Fundamental Chemistry	25	5	20	50	30	20	150	3	-	2	4
2	HIN 121	AEC	Hindi Language	25	5	20	50	-	-	100	2	-	-	2
3	ENG 122	AEC	English Language I	25	5	20	50	-	-	100	2	-	-	2
4	BT 121	DC	Cell Biology	25	5	20	50	30	20	150	4	1	2	6
5	BOT 125	DC	Biodiversity of Cryptogams	25	5	20	50	30	20	150	4	1	2	6
Total				**125**	**25**	**100**	**250**	**90**	**60**	**650**	**15**	**2**	**6**	**20**

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II Semester

S No	Course Code	Category	Course Name	Maximum Marks Allocated						Total	Contact Hours per Week			
				Theory				Practical Max			L	T	P	Total Credits
				Mid Term	Attd.	Continuous Assessment	End Term	End Term	Continuous Assessment					
1	ED 222	AEC	Entrepreneurship & Development	25	5	20	50	-	-	100	4	-	-	4
2	BT 221	DC	Developmental Biology	25	5	20	50	-	-	100	3	-	-	3
3	BT 222	DC	Microbiology	25	5	20	50	30	20	150	4	-	2	5
4	BT 223	DC	Mammalian Physiology	25	5	20	50	30	20	150	3	-	2	4
5	CHM 224	GEC	Organic Chemistry	25	5	20	50	30	20	150	4	-	2	5
Total				125	25	100	250	90	60	650	18	-	6	21

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III Semester

S No	Course Code	Category	Course Name	Maximum Marks Allocated				Practical Max		Total	Contact Hours per Week			
				Theory			End Term	End Term	Continuous Assessment		L	T	P	Total Credit
				Mid Term	Attd.	Continuous Assessment								
1	ENG322	AEC	Communication skills & Literature	25	5	20	50	-	-	100	4	-	-	4
2	BT321	DC	Genetics	25	5	20	50	-	-	100	3	-	2	4
3	BT322	DC	Molecular Biology	25	5	20	50	30	20	150	4	-	2	5
4	BCS323	SEC	Basics of Computer	25	5	20	50	30	20	150	3	-	2	4
5	BT323	DC	Plant Physiology and Biotechnology	25	5	20	50	30	20	150	3	-	2	4
6	CHM324	GEC	Qualitative & Quantitative Chemical Analysis	25	5	20	50	30	20	150	4	-	2	5
Total				**150**	**30**	**120**	**300**	**120**	**80**	**800**	**21**	**-**	**10**	**26**

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IV Semester

S. No	Course Code	Category	Course Name	Maximum Marks Allocated				Practical Max		Total	Contact Hours per Week			
				Theory			End Term	End Term	Continuous Assessment		L	T	P	Total Credits
				Mid Term	Attd.	Continuous Assessment								
1	BT 421	SEC	Industrial Biotechnology	25	5	20	50	-	-	100	4	-	-	4
2	BT 422	DC	Immunology	25	5	20	50	-	-	100	3	-	2	4
3	BT 423	DC	Bioanalytical Tools	25	5	20	50	30	20	150	4	-	2	5
4	BT 424	DC	Microbial Physiology & Metabolism	25	5	20	50	30	20	150	4	-	2	5
5	CHM 424	GEC	Bio Chemistry	25	5	20	50	30	20	150	4	-	2	5
Total				**125**	**25**	**100**	**250**	**90**	**60**	**650**	**19**	**-**	**8**	**23**

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Semester

S No	Course Code	Category	Course Name	Maximum Marks Allocated						Total	Contact Hours per Week			
				Theory				Practical Max			L	T	P	Total Credits
				Mid Term	Attd.	Continuous Assessment	End Term	End Term	Continuous Assessment					
1	BT 521.1	DSE	Discipline Specific Elective I	25	5	20	50	-	-	150	4	-	2	5
2	RM 522	SEC	Drug Designing	25	5	20	50	30	20	100	3	1	-	4
3	BT 521	DC	Bioprocess Technology	25	5	20	50	30	20	150	4	1	2	6
4	BT 522	DC	Recombinant DNA Technology	25	5	20	50	-	-	100	4	-	-	4
4	BSC 526	Internship	Internship	3 Weeks Internship				-	-	100	-	-	6	3
			Total	**100**	**20**	**80**	**200**	**60**	**40**	**600**	**15**	**2**	**10**	**22**

Discipline Specific Elective I: 1) Microbial Biotechnology BT 521.1 A

2) Tissue Culture Techniques BT 521.1 B

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VI Semester

S. No	Course Code	Category	Course Name	Maximum Marks Allocated				Practical Max		Total	Contact Hours per Week			
				Theory			End Term				L	T	P	Total Credits
				Mid Term	Attd.	Continuous Assessment		End Term	Continuous Assessment					
1	BT 621.1	DSE	Discipline Specific Elective II	25	5	20	50	30	20	100	4	-	-	4
3	BT 621	DC	Computational & Omics Biology	25	5	20	50	30	20	150	4	-	2	5
5	BSC622	**Dissertation**		A project that demonstrates a student's ability to apply their knowledge and skills to a specific problem, and to independently conduct research				100	100	200	-	-	12	6
Total				50	10	40	100	160	140	450	8	-	14	15

Discipline Specific Electives II:

1) Environmental Biotechnology BT 621.1 A
2) Animal Biotechnology BT 621.1 B
3) Pharmaceutical Biotechnology BT 621.A C