

GUJARAT TECHNOLOGICAL UNIVERSITY

Bio-Technology(04)

BE 1st To 8th Semester Exam Scheme & Subject Code

EVALUATION SCHEME

University Exam (Theory) (E)		University Exam (Practical) (E)		Continuous Evaluation Process(M)		Practical (I)	
MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
70	23	X	50% of X	20	8	10	4
				30	12	X	50% of X

NOTE :

X = Marks of the Particular Subject.

Continuous Evaluation(M) 20/8 and Practical (I) 10/4 scheme apply up to April 2009

Continuous Evaluation(M) 30/12 and Practical X/ 50% of X scheme apply from April 2009 onward.

University Exam (Practical) (E) Component is applicable only in 7th & 8th Semester.

1st Year

Subject Code	Subject Name	Teaching Scheme(Hours)			Credits	University Exam (Theory) (E)	University Exam (Practical) (E)	Continuous Evaluation Process (M)	Practical (I)	Total Marks	Branch Code
		Theory	Tutorial	Practical							
110001	Chemistry	3	0	2	5	70	—	30	50	150	4
110002	Communication Skills	1	0	2	3	70	—	30	50	150	4
110003	Computer Programming & Utilization (Revised)	2	0	4	6	70	—	30	50	150	4
110004	Elements of Civil Engineering (Revised)	4	0	2	6	70	—	30	50	150	4
110005	Elements of Electrical Engineering	4	0	2	6	70	—	30	50	150	4
110006	Elements of Mechanical Engineering	4	0	2	6	70	—	30	50	150	4
110007	Environmental Studies	3	0	0	3	70	—	30	50	150	4
110008 OR 110014	Maths-I (entry year 2008-10 having backlog)OR Calculus (entry year 2011-12)	3	2	0	5	70	—	30	50	150	4

110009 OR 110015	Maths-II (entry year 2008-10 having backlog) OR Vector Calculus and Linear Algebra (entry year 2011-12)	3	2	0	5	70	—	30	50	150	4
110010	Mechanics of Solids (Revised)	3	0	2	5	70	—	30	50	150	4
110011	Physics	3	0	2	5	70	—	30	50	150	4
110012	Workshop	0	0	4	4	0	—	0	100	100	4
110013	Engineering Graphics	2	0	4	6	70	—	30	50	150	4
TOTAL		35	4	26	65						

Semester III

Subject Code	Subject Name	Teaching Scheme(Hours)			Credits	University Exam (Theory) (E)	University Exam (Practical) (E)	Continuous Evaluation Process (M)	Practical (I)	Total Marks	Branch Code
		Theory	Tutorial	Practical							
130401	Introductory Biology	2	0	0	2	70	—	30	50	150	4
130402	Cell Biology	3	0	3	6	70	—	30	50	150	4
130403	Basic Biochemistry	3	0	3	6	70	—	30	50	150	4
130404	Organic Chemistry and Unit Processes	3	0	3	6	70	—	30	50	150	4
130001/ 130002	Mathematics-3 / Advanced Engineering Mathematics (New)	3	2	0	5	70	—	30	50	150	4
130405	Thermodynamics	4	1	0	5	70	—	30	50	150	4
TOTAL		18	3	9	30						

Semester IV

Subject Code	Subject Name	Teaching Scheme(Hours)			Credits	University Exam (Theory)	University Exam (Practical)	Continuous Evaluation Process	Practical (I)	Total Marks	Branch Code
		Theory	Tutorial	Practical							
140001	Mathematics-4	3	2	0	5	70	—	30	50	150	4
140002	Management-1	2	0	0	2	70	—	30	50	150	4
140401	Molecular Biology And genetics	3	0	3	6	70	—	30	50	150	4
140402	Basic Taxonomy And Techniques	3	0	2	5	70	—	30	50	150	4
140403	Principles Of Process Engineering-I	3	0	3	6	70	—	30	50	150	4
140404	Institute Elective-1(Food Science And Bio Technology)	4	0	2	6	70	—	30	50	150	4
TOTAL		18	2	10	30						

Semester V

Subject Code	Subject Name	Teaching Scheme(Hours)			Credits	University Exam (Theory) (E)	University Exam (Practical) (E)	Continuous Evaluation Process (M)	Practical (I)	Total Marks	Branch Code
		Theory	Tutorial	Practical							
150001	Management - II	2	0	0	2	70	—	30	50	150	4
150401	Advanced Molecular Biology –I	3	0	0	3	70	—	30	50	150	4
150402	Immunology	3	0	2	5	70	—	30	50	150	4
150403	Chemical Reaction Engineering	4	0	3	7	70	—	30	50	150	4
150404	Principles of Process Engineering-II	3	0	3	6	70	—	30	50	150	4
150405	The Science of Life(Institute Elective-II)	4	0	2	6	70	—	30	50	150	4
	TOTAL	19	0	10	29						

Semester VI

Subject Code	Subject Name	Teaching Scheme(Hours)			Credits	University Exam (Theory) (E)	University Exam (Practical) (E)	Continuous Evaluation Process (M)	Practical (I)	Total Marks	Branch Code
		Theory	Tutorial	Practical							
160401	Advanced Molecular Biology-II	3	0	3	6	70	—	30	50	150	4
160402	Fundamentals of Industrial Biotechnology	3	0	2	5	70	—	30	50	150	4
160403	Environmental Biotechnology	3	0	2	5	70	—	30	50	150	4
160404	Instrumentation and Process Control	4	0	3	7	70	—	30	50	150	4
160405	Principles of Process Engineering-III	3	0	3	6	70	—	30	50	150	4
160406	Bioethics, Patents and IPR	2	0	0	2	70	—	30	50	150	4
	TOTAL	18	0	13	31						

Semester VII

Subject Code	Subject Name	Teaching Scheme(Hours)			Credits	University Exam (Theory) (E)	University Exam (Practical) (E)	Continuous Evaluation Process (M)	Practical (I)	Total Marks	Branch Code
		Theory	Tutorial	Practical							
170401	Enzymes and Proteins	4	0	3	7	70	30	30	20	150	4
170402	Agricultural and Food Biotechnology	3	0	3	6	70	30	30	20	150	4
170403	Bioprocess Plant Design	4	0	2	6	70	30	30	20	150	4
170404	Bioprocess Engineering I	3	0	0	3	70	0	30	50	150	4
170405	Genomics and Proteomics (Department Elective-I)	3	0	2	5	70	30	30	20	150	4
170406	Bioinformatics (Department Elective-I)	3	0	2	5	70	30	30	20	150	4
170001	Project - I	0	0	4	4	0	100	0	50	150	4
	TOTAL	17	0	14	31						

Semester VIII

Subject Code	Subject Name	Teaching Scheme(Hours)			Credits	University Exam (Theory)	University Exam (Practical)	Continuous Evaluation Process	Practical (I)	Total Marks	Branch Code
		Theory	Tutorial	Practical							
180401	Bio Process Engineering II	3	0	3	6	70	30	30	20	150	4
180402	Animal and Plant Biotechnology	3	0	3	6	70	30	30	20	150	4
180403	Biostatistics	2	0	0	2	70	0	30	50	150	4
180404	Nano-Biotechnology	2	0	0	2	70	0	30	50	150	4
180405	Modelling and Simulations of Bioprocess (Department Elective-II)	3	0	2	5	70	30	30	20	150	4
180406	Environmental Management (Department Elective-II)	3	0	2	5	70	30	30	20	150	4
180407	Project II	0	0	8	8	0	100	0	50	150	4
	TOTAL	13	0	16	29						