GUJARAT TECHNOLOGICAL UNIVERSITY
Bio-Medical Engineering (03)
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	3
110002	Communication Skills	1	0	2	3	70	–	30	50	150	3
110003	Computer Programming & Utilization (Revised)	2	0	4	6	70	–	30	50	150	3
110004	Elements of Civil Engineering (Revised)	4	0	2	6	70	–	30	50	150	3
110005	Elements of Electrical Engineering	4	0	2	6	70	–	30	50	150	3
110006	Elements of Mechanical Engineering	4	0	2	6	70	–	30	50	150	3
110007	Environmental Studies	3	0	0	3	70	–	30	50	150	3

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	3
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	3
110010	Mechanics of Solids (Revised)	3	0	2	5	70	–	30	50	150	3
110011	Physics	3	0	2	5	70	–	30	50	150	3
110012	Workshop	0	0	4	4	0	–	0	100	100	3
110013	Engineering Graphics	2	0	4	6	70	–	30	50	150	3
	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							
130001/ 130002	Mathematics-3 / Advanced Engineering Mathematics (New)	3	2	0	5	70	–	30	50	150	3
131101	Basic Electronics	4	0	2	6	70	–	30	50	150	3
130901	Circuits and Networks	4	0	2	6	70	–	30	50	150	3
130701	Digital Logic Design	4	0	2	6	70	–	30	50	150	3
130301	Life Science-1	4	0	1	5	70	–	30	50	150	3
130302	Simulation and Design Tools	0	0	2	2	0	–	0	100	100	3
	TOTAL	**19**	**2**	**9**	**30**						

Semester IV

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							
140001	Mathematics-4	3	2	0	5	70	–	30	50	150	3
140002	Management-1	2	0	0	2	70	–	30	50	150	3
140701	Microprocessor And Interfacing	3	0	2	5	70	–	30	50	150	3
141101	Advance Electronics	4	0	2	6	70	–	30	50	150	3
140301	Life Science-2	4	0	2	6	70	–	30	50	150	3
140302	Institute Elective-1(Physiological Measurement Techniques)	4	0	2	6	70	–	30	50	150	3
	TOTAL	**20**	**2**	**8**	**30**						

SemesterV

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	3
150301	Biomaterials & Implants	4	0	2	6	70	—	30	50	150	3
150302	Biomedical Transducers	3	0	2	5	70	—	30	50	150	3
151001	Microcontroller and Interfacing	3	0	2	5	70	—	30	50	150	3
150303	Signal & Systems	4	0	2	6	70	—	30	50	150	3
150304	Modelling & Simulation of Biological Systems (Institute Elective - II)	4	0	2	6	70	—	30	50	150	3
	TOTAL	**20**	**0**	**10**	**30**						

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							
160301	Diagnostic Instrumentation	4	0	2	6	70	—	30	50	150	3
160302	Analytical & Optical Instrumentation	4	0	2	6	70	—	30	50	150	3
160303	Therapeutic Instrumentation	4	0	2	6	70	—	30	50	150	3
160304	Bio-Medical Control Theory	4	0	0	4	70	—	30	50	150	3
160305	Bio-Medical Signal Processing	4	0	2	6	70	—	30	50	150	3
160306	Seminar	0	0	2	2	0	—	0	100	100	3
	TOTAL	**20**	**0**	**10**	**30**						

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							
170301	Biomechanics	3	0	2	5	70	30	30	20	150	3
170302	Physiological System Modelling	3	0	2	5	70	30	30	20	150	3
170303	Medical Imaging Technology	3	0	2	5	70	30	30	20	150	3
170304	Hospital Management & Clinical Technology	3	0	2	5	70	30	30	20	150	3
170305	Intellectual Property Rights and Bioethics (Department Elective-I)	4	0	2	6	70	30	30	20	150	3
170306	Robotics and Artificial Intelligence (Department Elective-I)	4	0	2	6	70	30	30	20	150	3
170307	Image Processing (Department Elective-I)	4	0	2	6	70	30	30	20	150	3
170001	Project - I	0	0	4	4	0	100	0	50	150	3
	TOTAL	**16**	**0**	**14**	**30**						

Semester VIII

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							
180301	Rehabilitation Engineering	4	0	2	6	70	30	30	20	150	3
180302	Advance Medical Techniques	4	0	2	6	70	30	30	20	150	3
180303	Biomedical Microsystems (Department Elective-II)	4	0	2	6	70	30	30	20	150	3
180304	Electronic System Design (Department Elective-II)	4	0	2	6	70	30	30	20	150	3
180305	Bioinformatics (Department Elective-II)	4	0	2	6	70	30	30	20	150	3
180306	Project II	0	0	12	12	0	150	0	50	200	3
	TOTAL	**12**	**0**	**18**	**30**						