GUJARAT TECHNOLOGICAL UNIVERSITY
Metallurgy Engineering (21)
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	21
110002	Communication Skills	1	0	2	3	70	–	30	50	150	21
110003	Computer Programming & Utilization (Revised)	2	0	4	6	70	–	30	50	150	21
110004	Elements of Civil Engineering (Revised)	4	0	2	6	70	–	30	50	150	21
110005	Elements of Electrical Engineering	4	0	2	6	70	–	30	50	150	21
110006	Elements of Mechanical Engineering	4	0	2	6	70	–	30	50	150	21
110007	Environmental Studies	3	0	0	3	70	–	30	50	150	21
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	21

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	21
110010	Mechanics of Solids (Revised)	3	0	2	5	70	–	30	50	150	21
110011	Physics	3	0	2	5	70	–	30	50	150	21
110012	Workshop	0	0	4	4	0	–	0	100	100	21
110013	Engineering Graphics	2	0	4	6	70	–	30	50	150	21
	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	21
131901	Electrical Machines and Electronics	3	1	0	4	70	–	30	50	150	21
131902	Machine Design & Industrial Drafting	4	0	2	6	70	–	30	50	150	21
132101	Elements of Metallurgy and Material Science	4	0	2	6	70	–	30	50	150	21
132102	Metallurgical Thermodynamics	3	2	0	5	70	–	30	50	150	21
132103	Mineral Processing	4	0	2	6	70	–	30	50	150	21
	TOTAL	**21**	**5**	**6**	**32**						

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	21
140002	Management-1	2	0	0	2	70	–	30	50	150	21
142101	Transport Phenomena In Materials Processing	4	0	2	6	70	–	30	50	150	21
142102	Principles Of Extractive Metallurgy	4	1	0	5	70	–	30	50	150	21
142103	Mechanical Behaviour And Testing Of Materials	3	1	0	4	70	–	30	50	150	21
142104	Institute Elective -1(Metallurgy For Non-Metallurgists)	4	0	2	6	70	–	30	50	150	21
	TOTAL	**20**	**4**	**4**	**28**						

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	21
152101	Iron Making	4	0	2	6	70	–	30	50	150	21
152102	Non - Ferrous Extractive Metallurgy	4	0	0	4	70	–	30	50	150	21
152103	Foundry Technology	4	0	2	6	70	–	30	50	150	21
152104	Fuels, Furnaces and Refractory	4	2	0	6	70	–	30	50	150	21
152105	Industrial Corrosion & its Prevention (Institutional Elective - II)	4	0	2	6	70	–	30	50	150	21
	TOTAL	**22**	**2**	**6**	**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							
162101	Physical Metallurgy - I	4	2	2	8	70	–	30	50	150	21
162102	Steel Making	4	2	0	6	70	–	30	50	150	21
162103	Powder Metallurgy	3	1	2	6	70	–	30	50	150	21
162104	Advanced Materials and Applications	3	1	0	4	70	–	30	50	150	21
162105	Electrometallurgy & Corrosion	3	1	2	6	70	–	30	50	150	21
	TOTAL	**17**	**7**	**6**	**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							
172101	Physical Metallurgy - II	3	1	2	6	70	30	30	20	150	21
172102	Non Destructive Testing	3	1	2	6	70	30	30	20	150	21
172103	Metal Joining Processes	3	1	2	6	70	30	30	20	150	21
172104	Alloy Design	3	1	0	4	70	30	30	20	150	21
172105	Process Modeling (Department Elective - I)	3	1	0	4	70	30	30	20	150	21
172106	Advance Ferrous Metallurgy (Department Elective - I)	3	1	0	4	70	30	30	20	150	21
172107	Surface Coating Technology (Department Elective - I)	3	1	0	4	70	30	30	20	150	21
170001	Project - I	0	0	4	4	0	100	0	50	150	21
	TOTAL	**15**	**5**	**10**	**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							
182101	Metal Working Processes	4	2	0	6	70	30	30	20	150	21
182102	Selection of Materials and Failure Analysis	4	2	0	6	70	30	30	20	150	21
182103	Composite Materials (Department Elective - II)	4	2	0	6	70	30	30	20	150	21
182104	Nano-Materials & Technology (Department Elective - II)	4	2	0	6	70	30	30	20	150	21
182105	Modern Techniques for Material Characterization (Department Elective - II)	4	2	0	6	70	30	30	20	150	21
182106	Project II	0	0	12	12	0	150	0	50	200	21
	TOTAL	**12**	**6**	**12**	**30**						