

GUJARAT TECHNOLOGICAL UNIVERSITY

B.E SEM-4 (ALL BRANCH) SUBJECT CODE/TEACHING/EXAMINATION SCHEME

Subject Code	Subject Name	Teaching Scheme(Hours)			Credits	Examination Marks			Total Marks	Branch Code
		Theory	Tutorial	Practical		External Exam (Theory)	Mid Sem. Exam (Theory)	Internal Assessment		
Branch Code : 1 Aeronautical Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	1
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	1
141903	ENGINEERING THERMODYNAMICS	4	1	0	5	70	20	10	100	1
140101	AIRCRAFT STRUCTURE-1	3	1	0	4	70	20	10	100	1
140102	AERODYNAMICS-1	3	1	0	4	70	20	10	100	1
140103	AIRCRAFT SYSTEMS AND INSTRUMENTS	4	1	0	5	70	20	10	100	1
140104	INSTITUTE ELECTIVE-1(FUNDAMENTALS OF AERONAUTICS)	4	0	2	6	70	20	10	100	1
Branch Code : 2 Automobile Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	2
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	2
142001	KINEMATICS AND DYNAMICS OF MACHINES	4	0	2	6	70	20	10	100	2
141903	ENGINEERING THERMODYNAMICS	4	1	0	5	70	20	10	100	2
140201	MECHANICS OF DEFORMABLE BODIES	3	1	0	4	70	20	10	100	2
140202	INSTITUTE ELECTIVE -1(FUNDAMENTALS OF AUTOMOBILE SYSTEMS)	4	2	0	6	70	20	10	100	2
Branch Code : 3 Bio-Medical Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	3
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	3
140701	MICROPROCESSOR AND INTERFACING	3	0	2	5	70	20	10	100	3
141101	ADVANCE ELECTRONICS	4	0	2	6	70	20	10	100	3
140301	LIFE SCIENCE-2	4	0	2	6	70	20	10	100	3
140302	INSTITUTE ELECTIVE-1(PHYSIOLOGICAL MEASUREMENT TECHNIQUES)	4	0	2	6	70	20	10	100	3
Branch Code : 4 Bio-Technology (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	4
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	4
140401	MOLECULAR BIOLOGY AND GENETICS	3	0	3	6	70	20	10	100	4
140402	BASIC TAXONOMY AND TECHNIQUES	3	0	2	5	70	20	10	100	4
140403	PRINCIPLES OF PROCESS ENGINEERING-I	3	0	3	6	70	20	10	100	4
140404	INSTITUTE ELECTIVE-1(FOOD SCIENCE AND BIO TECHNOLOGY)	4	0	2	6	70	20	10	100	4

Branch Code : 5 Chemical Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	5
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	5
140501	PHYSICAL AND INORGANIC CHEMISTRY	3	0	4	7	70	20	10	100	5
140502	CHEMICAL ENGINEERING THERMODYNAMICS -I	3	1	0	4	70	20	10	100	5
140503	PROCESS HEAT TRANSFER	3	0	3	6	70	20	10	100	5
140504	INSTITUTE ELECTIVE-1(FUNDAMENTAL CHEMICAL ENGINEERING CALCULATIONS & STOICHIMETRY)	4	0	2	6	70	20	10	100	5
Branch Code : 6 Civil Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	6
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	6
140601	ADVANCED SURVEYING	3	0	2	5	70	20	10	100	6
140602	BUILDING CONSTRUCTION	3	1	0	4	70	20	10	100	6
140603	STRUCTURAL ANALYSIS-2	3	2	0	5	70	20	10	100	6
140604	ENGINEERING GEOLOGY	2	1	0	3	70	20	10	100	6
140605	INSTITUTE ELECTIVE-1(ADVANCED STRENGTH OF MATERIALS)	4	0	2	6	70	20	10	100	6
Branch Code : 7 Computer Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	7
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	7
140701	MICROPROCESSOR AND INTERFACING	3	0	2	5	70	20	10	100	7
140702	OPERATING SYSTEM	4	0	2	6	70	20	10	100	7
140703	OBJECT ORIENTED ANALYSIS DESIGN AND UML	4	0	2	6	70	20	10	100	7
140704	INSTITUTE ELECTIVE-1(OBJECT ORIENTED CONCEPTS AND PROGRAMMING)	4	0	2	6	70	20	10	100	7
Branch Code : 8 Electrical & Electronics (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	8
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	8
140701	MICROPROCESSOR AND INTERFACING	3	0	2	5	70	20	10	100	8
141101	ADVANCE ELECTRONICS	4	0	2	6	70	20	10	100	8
141102	INSTITUTE ELECTIVE-1(COMMUNICATION ENGINEERING)	4	0	2	6	70	20	10	100	8
141701	CONTROL THEORY	4	0	2	6	70	20	10	100	8
Branch Code : 9 Electrical Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	9
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	9
140701	MICROPROCESSOR AND INTERFACING	3	0	2	5	70	20	10	100	9
141701	CONTROL THEORY	4	0	2	6	70	20	10	100	9
140902	ELECTRICAL POWER	4	0	0	4	70	20	10	100	9
140903	ELECTRICAL AND ELECTRONICS WORKSHOP	0	0	2	2	0	0	100	100	9
140904	INSTITUTE ELECTIVE-1(ENERGY SYSTEMS)	4	0	2	6	70	20	10	100	9

Branch Code : 10 Electronics Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	10
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	10
140701	MICROPROCESSOR AND INTERFACING	3	0	2	5	70	20	10	100	10
141101	ADVANCE ELECTRONICS	4	0	2	6	70	20	10	100	10
141102	INSTITUTE ELECTIVE-1(COMMUNICATION ENGINEERING)	4	0	2	6	70	20	10	100	10
141701	CONTROL THEORY	4	0	2	6	70	20	10	100	10
Branch Code : 11 Electronics & Communication Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	11
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	11
140701	MICROPROCESSOR AND INTERFACING	3	0	2	5	70	20	10	100	11
141101	ADVANCE ELECTRONICS	4	0	2	6	70	20	10	100	11
141102	INSTITUTE ELECTIVE-1(COMMUNICATION ENGINEERING)	4	0	2	6	70	20	10	100	11
141701	CONTROL THEORY	4	0	2	6	70	20	10	100	11
Branch Code : 12 Electronics & Telecommunication (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	12
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	12
140701	MICROPROCESSOR AND INTERFACING	3	0	2	5	70	20	10	100	12
141101	ADVANCE ELECTRONICS	4	0	2	6	70	20	10	100	12
141102	INSTITUTE ELECTIVE-1(COMMUNICATION ENGINEERING)	4	0	2	6	70	20	10	100	12
141701	CONTROL THEORY	4	0	2	6	70	20	10	100	12
Branch Code : 13 Environment Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	13
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	13
141301	DESIGN OF ENVIRONMENTAL STRUCTURE	3	2	0	5	70	20	10	100	13
141302	ENVIRONMENTAL SCIENCES-II	3	0	4	7	70	20	10	100	13
141303	CHEMICAL ENGINEERING PROCESSES	3	2	0	5	70	20	10	100	13
141304	WATER POLLUTION & CONTROL(INSTITUTE ELECTIVE -1)	4	2	0	6	70	20	10	100	13
Branch Code : 14 Food Processing & Technology (Semester IV)										
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	14
141401	FOOD NUTRITION & BIOCHEMISTRY	3	0	2	5	70	20	10	100	14
141402	FOOD & INDUSTRIAL MICROBIOLOGY	3	0	2	5	70	20	10	100	14
141403	MATERIALS & MANUFACTURE OF FOOD EQUIPMENT	4	0	2	6	70	20	10	100	14
141404	TECHNOLOGY OF GRAINS	4	0	2	6	70	20	10	100	14
141405	INSTITUTE ELECTIVE-1(PRINCIPLES OF FOOD ENGINEERING)	4	0	2	6	70	20	10	100	14

Branch Code : 15 Industrial Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	15
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	15
141901	MECHANICAL MEASUREMENT & METROLOGY	4	0	2	6	70	20	10	100	15
141902	KINEMATICS OF MACHINES	3	1	0	4	70	20	10	100	15
142501	HEAT POWER ENGINEERING	4	1	0	5	70	20	10	100	15
141501	INSTITUTE ELECTIVE-1 (PRODUCTIVITY ENGINEERING)	4	0	2	6	70	20	10	100	15
Branch Code : 16 Information Technology (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	16
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	16
140702	OPERATING SYSTEM	4	0	2	6	70	20	10	100	16
140703	OBJECT ORIENTED ANALYSIS DESIGN AND UML	4	0	2	6	70	20	10	100	16
141601	DATA COMMUNICATION AND NETWORKING	3	0	2	6	70	20	10	100	16
140704	INSTITUTE ELECTIVE-1(OBJECT ORIENTED CONCEPTS AND PROGRAMMING)	4	0	2	6	70	20	10	100	16
Branch Code : 17 Instrumentation & Control Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	17
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	17
140701	MICROPROCESSOR AND INTERFACING	3	0	2	5	70	20	10	100	17
141101	ADVANCE ELECTRONICS	4	0	2	6	70	20	10	100	17
141701	CONTROL THEORY	4	0	2	6	70	20	10	100	17
141702	INSTITUTE ELECTIVE -1(TRANSDUCERS)	4	0	2	6	70	20	10	100	17
Branch Code : 18 Marine Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	18
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	18
140201	MECHANICS OF DEFORMABLE BODIES	3	1	0	4	70	20	10	100	18
141902	KINEMATICS OF MACHINES	3	1	0	4	70	20	10	100	18
141801	FUNDAMENTALS OF SHIP STRUCTURE	4	1	2	7	70	20	10	100	18
141802	INSTITUTE ELECTIVE-1(BASIC SHIP STRUCTURE AND CONSTRUCTION)	4	0	2	6	70	20	10	100	18
Branch Code : 19 Mechanical Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	19
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	19
141901	MECHANICAL MEASUREMENT & METROLOGY	4	0	2	6	70	20	10	100	19
141902	KINEMATICS OF MACHINES	3	1	0	4	70	20	10	100	19
141903	ENGINEERING THERMODYNAMICS	4	1	0	5	70	20	10	100	19
141904	INSTITUTE ELECTIVE-1(NON – CONVENTIONAL ENERGY SOURCES)	4	0	2	6	70	20	10	100	19

Branch Code : 20 Mechatronics Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	20
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	20
141701	CONTROL THEORY	4	0	2	6	70	20	10	100	20
141903	ENGINEERING THERMODYNAMICS	4	1	0	5	70	20	10	100	20
142001	KINEMATICS AND DYNAMICS OF MACHINES	4	0	2	6	70	20	10	100	20
142002	INSTITUTE ELECTIVE-1(BASIC MECHATRONICS)	4	0	2	6	70	20	10	100	20
Branch Code : 21 Metallurgy Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	21
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	21
142101	TRANSPORT PHENOMENA IN MATERIALS PROCESSING	4	0	2	6	70	20	10	100	21
142102	PRINCIPLES OF EXTRACTIVE METALLURGY	4	1	0	5	70	20	10	100	21
142103	MECHANICAL BEHAVIOUR AND TESTING OF MATERIALS	3	1	0	4	70	20	10	100	21
142104	INSTITUTE ELECTIVE -1(METALLURGY FOR NON-METALLURGISTS)	4	0	2	6	70	20	10	100	21
Branch Code : 22 Mining Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	22
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	22
142201	MINING MACHINERY- 1	4	0	2	6	70	20	10	100	22
142202	BASIC MINE SURVEYING	2	0	4	6	70	20	10	100	22
142203	GEOLOGY-2	3	0	2	5	70	20	10	100	22
142204	INSTITUTE ELECTIVE-1(MINERAL TRANSPORT ENGINEERING)	4	0	2	6	70	20	10	100	22
Branch Code : 23 Plastic Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	23
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	23
142301	BASIC PLASTICS PROCESSING AND THERMAL ENGINEERING	3	0	3	6	70	20	10	100	23
142302	PLASTICS INDUSTRIAL HYDRAULICS AND PNEUMATICS	3	0	3	6	70	20	10	100	23
142303	ENTERPRENEURSHIP AND CREATIVITY	3	2	0	5	70	20	10	100	23
142304	INSTITUTE ELECTIVE-1(PLASTICS PACKAGING TECHNOLOGY)	4	0	2	6	70	20	10	100	23
Branch Code : 24 Power Electronics (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	24
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	24
141101	ADVANCE ELECTRONICS	4	0	2	6	70	20	10	100	24
141701	CONTROL THEORY	4	0	2	6	70	20	10	100	24
142401	ELECTRO MECHANICAL ENERGY CONVERSION.- 1	3	0	2	5	70	20	10	100	24
142402	INSTITUTE ELECTIVE-1(FUNDAMENTALS OF POWER ELECTRONICS)	4	0	2	6	70	20	10	100	24

Branch Code : 25 Production Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	25
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	25
141901	MECHANICAL MEASUREMENT & METROLOGY	4	0	2	6	70	20	10	100	25
141902	KINEMATICS OF MACHINES	3	1	0	4	70	20	10	100	25
142501	HEAT POWER ENGINEERING	4	1	0	5	70	20	10	100	25
142502	INSTITUTE ELECTIVE-1(FUNDAMENTALS OF QUALITY MANAGEMENT)	4	0	2	6	70	20	10	100	25
Branch Code : 26 Rubber Technology (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	26
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	26
142601	RUBBER COMPOUNDING MATERIALS	3	0	3	6	70	20	10	100	26
142602	NATURAL RUBBER SCIENCE AND TECHNOLOGY	3	0	3	6	70	20	10	100	26
142603	RUBBER ENGINEERING	3	0	2	5	70	20	10	100	26
142604	INSTITUTE ELECTIVE-1(INTRODUCTION TO RUBBERS & RUBBERY MATERIALS)	4	0	2	6	70	20	10	100	26
Branch Code : 28 Textile Production (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	28
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	28
142801	MANUFACTURING & APPLICATIONS OF POLYMERIC MATERIALS	3	0	0	3	70	20	10	100	28
142802	FIBER PHYSICS	3	0	0	3	70	20	10	100	28
142803	YARN PREPARATION & WEAVING	3	0	2	5	70	20	10	100	28
142804	SCOURING AND BLEACHING- II	4	0	2	6	70	20	10	100	28
142805	INSTITUTE ELECTIVE-1(ELEMENTS OF TEXTILE PROCESSES)	4	0	2	6	70	20	10	100	28
Branch Code : 29 Textile Technology (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	29
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	29
142901	YARN MANUFACTURING-II	4	0	2	6	70	20	10	100	29
142902	WEAVING-II	4	0	2	6	70	20	10	100	29
142903	TEXTILE PROCESSING-II	3	0	2	5	70	20	10	100	29
142805	INSTITUTE ELECTIVE-1(ELEMENTS OF TEXTILE PROCESSES)	4	0	2	6	70	20	10	100	29
Branch Code : 31 Computer Science & Engineering (Semester IV)										
140001	MATHEMATICS-4	3	2	0	5	70	20	10	100	31
140002	MANAGEMENT-1	2	0	0	2	70	20	10	100	31
140701	MICROPROCESSOR AND INTERFACING	3	0	2	5	70	20	10	100	31
140702	OPERATING SYSTEM	4	0	2	6	70	20	10	100	31
140703	OBJECT ORIENTED ANALYSIS DESIGN AND UML	4	0	2	6	70	20	10	100	31
140704	INSTITUTE ELECTIVE-1(OBJECT ORIENTED CONCEPTS AND PROGRAMMING)	4	0	2	6	70	20	10	100	31

