

Bachelor of Technology (Common for All Branches)

SCHEME OF STUDIES/EXAMINATIONS

Semester – I

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	AS-101N	Applied Physics-I	4	1	0	5	75	25	0	100	3
2A	AS-103N	Applied Chemistry	3	1	0	4	75	25	0	100	3
2B	ME-101N	Manufacturing Technology and Processes	4	0	0	4	75	25	0	100	3
3	AS-105N	Applied Mathematics-I	4	1	0	5	75	25	0	100	3
4A	HS-101N	Technical Communication	3	1	0	4	75	25	0	100	3
4B	BT-101N	Fundamentals of Biotechnology	3	1	0	4	75	25	0	100	3
5A	ME-105N	Engg. Drawing and Graphics	1	0	3	4	75	25	0	100	3
5B	ECE-101N	Basics of Electronics Engg.	3	1	0	4	75	25	0	100	3
6A	EE-101N	Electrical Technology Fundamentals	4	1	0	5	75	25	0	100	3
6B	CSE-101N	Introduction to Computer Programming	3	1	0	4	75	25	0	100	3
7	AS-107N	Applied Physics Lab -I	0	0	2	2	0	20	30	50	3
8A	AS-109N	Applied Chemistry Lab	0	0	2	2	0	20	30	50	3
8B	ME-107N	Engg. Workshop	0	0	3	3	0	20	30	50	3
9A	EE-103N	Electrical Technology Lab	0	0	2	2	0	20	30	50	3
9B	CSE-103N	Computer Programming Lab	0	0	2	2	0	20	30	50	3
10B	ECE-103N	Basic Electronics Lab	0	0	2	2	0	20	30	50	3
		Total	19/21	5/5	9/9	33/35	450	210/230	90/120	750A/800B	

Bachelor of Technology (Common for All Branches)

SCHEME OF STUDIES/EXAMINATIONS

Semester – II

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	AS-102N	Applied Physics-II	4	1	0	5	75	25	0	100	3
2A	AS-103N	Applied Chemistry	3	1	0	4	75	25	0	100	3
2B	ME-101N	Manufacturing Technology and Processes	4	0	0	4	75	25	0	100	3
3	AS-104N	Applied Mathematics-II	4	1	0	5	75	25	0	100	3
4A	HS-101N	Technical Communication	3	1	0	4	75	25	0	100	3
4B	BT-101N	Fundamentals of Biotechnology	3	1	0	4	75	25	0	100	3
5A	ME-105N	Engg. Drawing and Graphics	1	0	3	4	75	25	0	100	3
5B	ECE-101N	Basics of Electronics Engg.	3	1	0	4	75	25	0	100	3
6A	EE-101N	Electrical Technology Fundamentals	4	1	0	5	75	25	0	100	3
6B	CSE-101N	Introduction to Computer Programming	3	1	0	4	75	25	0	100	3
7	AS-106N	Applied Physics Lab -II	0	0	2	2	0	20	30	50	3
8A	AS-109N	Applied Chemistry Lab	0	0	2	2	0	20	30	50	3
8B	ME-107N	Engg. Workshop	0	0	3	3	0	20	30	50	3
9A	EE-103N	Electrical Technology Lab	0	0	2	2	0	20	30	50	3
9B	CSE-103N	Computer Programming Lab	0	0	2	2	0	20	30	50	3
10B	ECE-103N	Basic Electronics Lab	0	0	2	2	0	20	30	50	3
		Total	19/21	5/5	9/9	33/35	450	210/230	90/120	750A/800B	

Bachelor of Technology (Electronics & Communication Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – III

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	AS-201N	Mathematics-III	3	1	0	4	75	25	0	100	3
2	ECE-201N	Signals & Systems	3	1	0	4	75	25	0	100	3
3	ECE-203N	Electronic Devices	3	1	0	4	75	25	0	100	3
4	ECE-205N	Network Analysis & Synthesis	3	1	0	4	75	25	0	100	3
5	ECE-207N	Digital Electronics	3	1	0	4	75	25	0	100	3
6	ECE-209N	Analog Communications	3	1	0	4	75	25	0	100	3
7	ECE-211N	Signals & Systems Lab	0	0	3	3	0	40	60	100	3
8	ECE-213N	Digital Electronics Lab	0	0	3	3	0	40	60	100	3
9	ECE-215N	Analog Communications Lab	0	0	3	3	0	40	60	100	3
		Total	18	6	9	33	450	270	180	900	
10	MPC-201N	Environmental Studies*	3	0	0	3	75	25	0	100	3

**MPC-201N is a mandatory course and student has to get passing marks in order to qualify for the award of degree but its marks will not be added in the grand total.*

Bachelor of Technology (Electronics & Communication Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – IV

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	HS-201N	Fundamentals of Management	3	0	0	3	75	25	0	100	3
2	CSE-203N	Data Structures & Algorithms	3	1	0	4	75	25	0	100	3
3	ECE-202N	Electronics Measurements & Instruments	3	1	0	4	75	25	0	100	3
4	ECE-204N	Electromagnetic Theory	3	1	0	4	75	25	0	100	3
5	ECE-206N	Analog Electronics	3	1	0	4	75	25	0	100	3
6	ECE-208N	Computer Architecture & Organisation	3	1	0	4	75	25	0	100	3
7	CSE-210N	Data Structures Lab	0	0	3	3	0	40	60	100	3
8	ECE-212N	Electronics Measurements & Instruments Lab	0	0	3	3	0	40	60	100	3
9	ECE-214N	Analog Electronics Lab	0	0	3	3	0	40	60	100	3
		Total	18	5	9	32	450	270	180	900	
10	MPC-202N	Energy Studies*	3	0	0	3	75	25	0	100	3

**MPC-202N is a mandatory course and student has to get passing marks in order to qualify for the award of degree but its marks will not be added in the grand total.*

Note: *All the students have to undergo six weeks industrial training after IVth semester and it will be evaluated in Vth semester.*

Bachelor of Technology (Electronics & Communication Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – V

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	ECE-301N	Microprocessors & Interfacing	3	1	0	4	75	25	0	100	3
2	AS-303N	Numerical Analysis	3	1	0	4	75	25	0	100	3
3	ECE-303N	Antenna & Wave Propagation	3	1	0	4	75	25	0	100	3
4	ECE-305N	VLSI Technology	3	1	0	4	75	25	0	100	3
5	ECE-307N	Control Systems	3	1	0	4	75	25	0	100	3
6	HS-309N	Business Intelligence & Entrepreneurship	3	0	0	3	75	25	0	100	3
7	ECE-309N	Microprocessors & Interfacing Lab	0	0	3	3	0	40	60	100	3
8	ECE-311N	Design Automation Lab	0	0	3	3	0	40	60	100	3
9	ECE-313N	Antenna & Wave Propagation Lab	0	0	3	3	0	40	60	100	3
10	ECE-315N	Training Viva*					0	100	0	100	
		Total	18	5	9	32	450	370	180	1000	

**The performance of the student will be evaluated after the presentation delivered and the report submitted by him/her related to Industrial training undertaken after IVth semester.*

Bachelor of Technology (Electronics & Communication Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – VI

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	ECE-302N	Digital Signal Processing	3	1	0	4	75	25	0	100	3
2	ECE-304N	Digital Design using Verilog	3	1	0	4	75	25	0	100	3
3	CSE-309N	Essentials of Information Technology	3	1	0	4	75	25	0	100	3
4	ECE-306N	Digital Communication	3	1	0	4	75	25	0	100	3
5	ECE-308N	Computer Communication Network	3	1	0	4	75	25	0	100	3
6	ECE-310N	Digital Signal Processing Lab	0	0	3	3	0	40	60	100	3
7	ECE-312N	Digital Design using Verilog Lab	0	0	3	3	0	40	60	100	3
8	ECE-314N	Digital Communication Lab	0	0	3	3	0	40	60	100	3
9	ECE-316N	Personality & Soft Skills Development *	3	0	0	3	0	200	0	200	3
		Total	18	5	9	32	375	445	180	1000	

**The student will be evaluated on the basis of technical seminar and technical group discussions of 100 marks each.*

Note: All the students have to undergo six weeks industrial training after VIth semester and it will be evaluated in VIIth semester.

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SCHEME OF STUDIES/EXAMINATIONS

Semester – VII

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	ECE-401N	Microcontroller & Embedded Systems Design	3	1	0	4	75	25	0	100	3
2	ECE-403N	Digital Image Processing	3	1	0	4	75	25	0	100	3
3	ECE-405N	Power Electronics	3	1	0	4	75	25	0	100	3
4		DEC-I*	3	1	0	4	75	25	0	100	3
5		DEC - II*	3	1	0	4	75	25	0	100	3
6	ECE-407N	Microcontroller & Embedded Systems Design Lab	0	0	3	3	0	40	60	100	3
7	ECE-409N	Digital Image Processing Lab	0	0	3	3	0	40	60	100	3
8	ECE-411N	Project -I**	0	0	8	3	0	100	100	200	3
9	ECE-413N	Training Viva***					0	100	0	100	
		Total	15	5	14	34	375	405	220	1000	

* The students should select two Departmental Elective Courses (DEC) from the following list.

Course No.	Course Title	Course No.	Course Title
ECE-415N	Advance Digital Communication	ECE-429N	Consumer Electronics
ECE-417N	Nano Electronics	ECE-431N	Robotics
ECE-419N	Optical Communications	ECE-433N	Non-Conventional Energy Resources
ECE-421N	Adaptive Signal Processing	ECE-435N	Microstrip line Analysis
ECE-423N	Satellite Communication	ECE-437N	Cloud Computing
ECE-425N	Digital VLSI Design	ECE-439N	Software Defined Radios
ECE-427N	Analog CMOS IC Design		

**The project should be initiated by the students in the beginning of VIIth semester and will be evaluated at the end of the semester on the basis of a presentation and report.

***The performance of the student will be evaluated after the presentation delivered and the report submitted by the student related to Industrial training undertaken after VIth semester.

Bachelor of Technology (Electronics & Communication Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – VIII

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	ECE-402N	Wireless & Mobile Communication	3	1	0	4	75	25	0	100	3
2	ECE-404N	Microwave Engineering	3	1	0	4	75	25	0	100	3
3		DEC-III*	3	1	0	4	75	25	0	100	3
4		DEC – IV*	3	1	0	4	75	25	0	100	3
5	ECE-406N	Project-II**	0	0	12	12	0	100	100	200	3
6	ECE-408N	Wireless & Mobile Communication Lab	0	0	3	3	0	40	60	100	3
7	ECE-410N	Microwave Engineering Lab	0	0	3	3	0	40	60	100	3
8	ECE-436N	General Fitness & Professional Aptitude***					0	100	100	200	3
		Total	12	4	18	34	300	380	320	1000	

**The student should select two Departmental Elective Courses (DEC) from the following list.*

Course No.	Course Title	Course No.	Course Title
ECE-412N	DSP Processor	ECE-424N	Biomedical Signal Processing
ECE-414N	Mobile Communication Networks	ECE-426N	Multimedia Communications
ECE-416N	MEMS	ECE-428N	Mixed VLSI Design
ECE-418N	Transducers & its Applications	ECE-430N	Microstrip Antenna
ECE-420N	Radar Engineering	ECE-432N	Strategic Electronics
ECE-422N	High Frequency Circuit and Systems	ECE-434N	Cognitive Radios

***The project initiated by the students in VIIth semester will be continued in VIIIth semester and will be evaluated at the end of the semester on the basis of a presentation and report.*

****ECE-436 is a mandatory course and student has to get passing marks in order to qualify for the award of degree but its marks will not be added in the grand total.*

Bachelor of Technology (Computer Science & Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – III

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	HS-201N	Fundamentals of Management	3	0	0	3	75	25	0	100	3
2	CSE-201N	Discrete Structures	3	1	0	4	75	25	0	100	3
3	CSE-203N	Data Structures	3	1	0	4	75	25	0	100	3
4	CSE-205N	Database Management Systems	3	1	0	4	75	25	0	100	3
5	ECE-207N	Digital Electronics	3	1	0	4	75	25	0	100	3
6	CSE-209N	Programming Languages	3	1	0	4	75	25	0	100	3
7	CSE-211N	Data Structures Lab	0	0	3	3	0	40	60	100	3
8	ECE-213N	Digital Electronics Lab	0	0	3	3	0	40	60	100	3
9	CSE-215N	Data Base Management Systems Lab	0	0	3	3	0	40	60	100	3
		Total	18	5	9	32	450	270	180	900	
10	MPC-202N	Energy Studies*	3	0	0	3	75	25	0	100	3

**MPC-202N is a mandatory course and student has to get passing marks in order to qualify for the award of degree but its marks will not be added in the grand total.*

Bachelor of Technology (Computer Science & Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – IV

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	AS-201N	Mathematics-III	3	1	0	4	75	25	0	100	3
2	CSE-202N	Object Oriented Programming	3	1	0	4	75	25	0	100	3
3	CSE-204N	Internet Fundamental	3	0	0	3	75	25	0	100	3
4	CSE-206N	Digital Data Communication	3	1	0	4	75	25	0	100	3
5	ECE-301N	Microprocessor & Interfacing	3	1	0	4	75	25	0	100	3
6	CSE-210N	Operating System	3	1	0	4	75	25	0	100	3
7	CSE-212N	Object Oriented Programming Lab	0	0	3	3	0	40	60	100	3
8	ECE-311N	Microprocessor Lab	0	0	3	3	0	40	60	100	3
9	CSE-216N	Internet Lab	0	0	3	3	0	40	60	100	3
		Total	18	5	9	32	450	270	180	900	
10	MPC-201N	Environmental Studies*	3	0	0	3	75	25	0	100	3

**MPC-201N is a mandatory course and student has to get passing marks in order to qualify for the award of degree but its marks will not be added in the grand total.*

Note: *All the students have to undergo 4 - 6 six weeks industrial training after IVth semester and it will be evaluated in Vth semester.*

Bachelor of Technology (Computer Science & Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – VII

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	CSE-401N	Unix & Linux Programming	4	0	0	4	75	25	0	100	3
2	CSE-403N	Web Technology	4	0	0	4	75	25	0	100	3
3	HS-401N	Entrepreneurship	4	0	0	4	75	25	0	100	3
4		DEC-I*	3	0	0	3	75	25	0	100	3
5		DEC-II*	3	0	0	3	75	25	0	100	3
6	CSE-405N	Web Technology Lab	0	0	2	2	0	40	60	100	3
7	CSE-407N	Project-I**	0	0	8	8	0	100	100	200	3
8	CSE-409N	Computer Hardware & Troubleshooting Lab	0	0	2	2	0	40	60	100	3
9	CSE-411N	Seminar	0	0	2	2	0	100	0	100	
10	CSE-413N	Industrial Training (Viva-Voce)***						40	60	100	
		Total	18	0	14	32	375	445	280	1100	

* The students should select two Departmental Elective Courses (DEC) from the following list.

Course No.	DEC-I	Course No.	DEC-II
CSE-415N	Object Oriented Software Engineering	CSE-421N	Agile Software Engineering
CSE-417N	Big Data and Analytics	CSE-423N	Parallel Computing
CSE-419N	Cryptography & Information Security	CSE-425N	Expert Systems

**The project should be initiated by the students in the beginning of VIIth semester and will be evaluated at the end of the semester on the basis of a presentation and report.

***The performance of the student will be evaluated after the presentation delivered and the report submitted by the student related to Industrial training undertaken after VIth semester.

Bachelor of Technology (Computer Science & Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – VIII

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	CSE-402N	Neural Networks & Fuzzy Logic	4	0	0	4	75	25	0	100	3
2		DEC-III*	4	0	0	4	75	25	0	100	3
3		DEC-IV*	4	0	0	4	75	25	0	100	3
4	CSE-404N	Mobile Apps Development	4	0	0	4	75	25	0	100	3
5	CSE-406N	Mobile Apps Development Lab	0	0	3	3	0	40	60	100	3
6	CSE-408N	Project-II**	0	0	16	16	0	100	100	200	3
		Total	16	0	19	35	300	240	160	700	
7	CSE-410N	General Fitness & Professional Aptitude***						100		100	

**The student should select two Departmental Elective Courses (DEC) from the following list.*

Course No.	DEC-III	Course No.	DEC-IV
CSE-412N	Software Project Management	CSE-418N	Cloud Computing
CSE-414N	Cyber Security	CSE-420N	Graph Theory
CSE-416N	Data Mining	CSE-422N	Natural Language Programming

***The project initiated by the students in VIIth semester will be continued in VIIIth semester and will be evaluated at the end of the semester on the basis of a presentation and report.*

****CSE-410 is a mandatory course and student has to get passing marks in order to qualify for the award of degree but its marks will not be added in the grand total.*

Bachelor of Technology (Mechanical Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – III

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	AS-201N/ HS-201N	Mathematics –III/ Fundamentals of Management	3	1	0	4	75	25	0	100	3
2	ME-201N	Basic Thermodynamics	3	1	0	4	75	25	0	100	3
3	ME-203N	Mechanics of Solid –I	3	1	0	4	75	25	0	100	3
4	ME-205N	Machine Drawing	2	0	3	5	75	25	0	100	3
5	ME-207N	Kinematics of Machines	3	1	0	4	75	25	0	100	3
6	ME-209N	Material Science	4	0	0	4	75	25	0	100	3
7	ME-211N	Kinematics of Machine Lab	0	0	2	2	0	40	60	100	3
8	ME-213N	Material Science Lab	0	0	2	2	0	40	60	100	3
9	ME-215N	Mechanics of Solid Lab	0	0	2	2	0	40	60	100	3
		Total	18	4	9	31	450	270	180	900	
10	MPC-201N	Environmental Studies*	3	0	0	3	75	25	0	100	3

**MPC-201N is a mandatory course and student has to get passing marks in order to qualify for the award of degree but its marks will not be added in the grand total.*

Bachelor of Technology (Mechanical Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – IV

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	AS-201N/ HS-201N	Mathematics –III/ Fundamentals of Management	3	1	0	4	75	25	0	100	3
2	ME-202N	Production Technology-I	4	0	0	4	75	25	0	100	3
3	ME-204N	Steam Generation & Power	3	1	0	4	75	25	0	100	3
4	ME-206N	Mechanics of Solid-II	3	1	0	4	75	25	0	100	3
5	ME-208N	Fluid Mechanics	4	1	0	5	75	25	0	100	3
6	ME-210N	Dynamics of Machine	3	1	0	4	75	25	0	100	3
7	ME-214N	Fluid Mechanics Lab	0	0	2	2	0	40	60	100	3
8	ME-216N	Dynamics of Machine Lab	0	0	2	2	0	40	60	100	3
9	ME-218N	Steam Generation & Power Lab	0	0	2	2	0	40	60	100	3
10	ME-220N	Production Technology Lab	0	0	3	3	0	40	60	100	
		Total	20	5	9	34	450	310	240	1000	
10	MPC-202N	Energy Studies*	3	0	0	3	75	25	0	100	3

**MPC-202N is a mandatory course and student has to get passing marks in order to qualify for the award of degree but its marks will not be added in the grand total.*

Note: *All the students have to undergo six weeks industrial training after IVth semester and it will be evaluated in Vth semester.*

Bachelor of Technology (Mechanical Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – V

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	ME-301N	I.C. Engine & Gas Turbine	3	1	0	4	75	25	0	100	3
2	ME-303N	Fluid Machines	3	1	0	4	75	25	0	100	3
3	ME-305N	Heat Transfer	3	1	0	4	75	25	0	100	3
4	ME-307N	Industrial Engineering	3	1	0	4	75	25	0	100	3
5	ME-309N	Machine Design-I	2	0	4	6	75	25	0	100	3
6	ME-311N	Production Technology-II	4	0	0	4	75	25	0	100	3
7	ME-313N	I.C. Engine Lab	0	0	2	2	0	40	60	100	3
8	ME-315N	Fluid Machines Lab	0	0	2	2	0	40	60	100	3
9	ME-317N	Heat Transfer Lab	0	0	2	2	0	40	60	100	3
10	ME-319N	Industrial Training (Viva-Voce)*	0	0	0	0	0	40	60	100	3
		Total	18	4	10	32	450	310	240	1000	

**The performance of the student will be evaluated after the presentation delivered and the report submitted by him/her related to Industrial training undertaken after IVth semester.*

Bachelor of Technology (Mechanical Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – VI

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	ME-302N	Refrigeration and Air Conditioning	3	1	0	4	75	25	0	100	3
2	ME-304N	Tribology & Mechanical Vibration	3	1	0	4	75	25	0	100	3
3	ME-306N	Operation Research	3	1	0	4	75	25	0	100	3
4	CSE-209N	Essentials of IT	3	1	0	4	75	25	0	100	3
5	ME-308N	Computer Aided Design and Manufacturing	4	0	0	4	75	25	0	100	3
6	ME-310N	Machine Design-II	2	0	4	6	75	25	0	100	3
7	ME-312N	Refrigeration and Air Conditioning Lab	0	0	2	2	0	40	60	100	3
8	ME-314N	Tribology & Mechanical Vibration Lab	0	0	2	2	0	40	60	100	3
9	ME-316N	Computer Aided Design and Manufacturing Lab	0	0	2	2	0	40	60	100	3
		Total	18	4	10	32	450	270	180	900	

Note: All the students have to undergo six weeks industrial training after VIth semester and it will be evaluated in VIIth semester.

Bachelor of Technology (Mechanical Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – VII

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	ME-401N	Measurement and Control	4	0	0	4	75	25	0	100	3
2	ME-403N	Mechatronics	4	0	0	4	75	25	0	100	3
3	HS-301N	Entrepreneurship	3	0	0	3	75	25	0	100	3
4		DEC – I*	4	0	0	4	75	25	0	100	3
5		DEC –II*	3	0	0	3	75	25	0	100	3
6	ME-405N	Measurement & Control Lab	0	0	2	2	0	40	60	100	3
7	ME-407N	Mechatronics Lab	0	0	2	2	0	40	60	100	3
8	ME-409N	Project-I**	0	0	8	8	0	100	100	200	
9	ME-411N	Industrial Training (Viva-Voce)***	0	0	0	0	0	40	60	100	
10	ME-413N	Seminar-I	0	0	2	2		50	50	100	
		Total	18	0	16	32	375	395	330	1100	

* The students should select two Departmental Elective Courses (DEC) from the following list.

Course No.	DEC-I	Course No.	DEC-II
ME-413N	Non-Conventional Machining	ME-425N	Finite Element Methods in Engineering
ME-415N	Soft Computing Techniques	ME-427N	Advanced Manufacturing Technology
ME-417N	Non-Destructive Evaluation & Testing	ME-429N	Robotics: Mechanics and Control
ME-419N	Design and Optimization	ME-431N	Simulation of Mechanical Systems
ME-421N	Computational Fluid Dynamics	ME-433N	Control Engineering
ME-423N	Fundamental of Gas Dynamics	ME-435N	Environmental Pollution and Abatement

**The project should be initiated by the students in the beginning of VIIth semester and will be evaluated at the end of the semester on the basis of a presentation and report.

***The performance of the student will be evaluated after the presentation delivered and the report submitted by the student related to Industrial training undertaken after VIth semester.

Bachelor of Technology (Mechanical Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – VIII

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/ Week	Theory	Sessional	Practical	Total	
1	ME-402N	Automobile Engineering	4	0	0	4	75	25	0	100	3
2		DEC-III*	4	0	0	4	75	25	0	100	3
3		DEC-IV*	4	0	0	4	75	25	0	100	3
4	ME-404N	Power Plant Engineering	4	0	0	4	75	25	0	100	3
5	ME-406N	Quality Assurance & Reliability	4	0	0	4	75	25	0	100	3
6	ME-408N	Automobile Engineering Lab	0	0	2	2	0	40	60	100	3
7	ME-410N	Project-II**	0	0	10	10	0	100	100	200	
8	ME-412N	Seminar	0	0	2	2	0	100	0	100	
		Total	20	0	14	34	375	365	160	900	

**The student should select two Departmental Elective Courses (DEC) from the following list.*

Course No.	DEC-III	Course No.	DEC-IV
ME-414N	Smart Materials Structures & Devices	ME-426N	Manufacturing Management
ME-416N	Lubrication Technology	ME-428N	Design of Pressure Vessels and Piping
ME-418N	Energy Management	ME-430N	Concurrent Engineering
ME-420N	Waste Heat Recovery System	ME-432N	Industrial Combustion
ME-422N	Foundry Engineering	ME-434N	Metal Forming and Finishing
ME-424N	Ergonomics in Design	ME-436N	Air Craft and Rocket Propulsion

***The project should be initiated by the students in the beginning of VIIIth semester and will be evaluated at the end of the semester on the basis of a presentation and report.*

Note: Project-II should not be related to Project-I unless it involves large amount of work, time and effort.

Bachelor of Technology (Biotechnology Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – III

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/ Week	Theory	Sessional	Practical	Total	
1	BT-201N	Cell Biology	3	1	0	4	75	25	0	100	3
2	BT-203N	Microbiology	3	1	0	4	75	25	0	100	3
3	BT-205N	Biochemistry	3	1	0	4	75	25	0	100	3
4	BT-207N	Genetics	3	1	0	4	75	25	0	100	3
5	HS-201N	Fundamentals of Management	3	0	0	3	75	25	0	100	3
6	BT-209N	Cell Biology & Genetics Lab	0	0	3	3	0	40	60	100	3
7	BT-211N	Microbiology Lab	0	0	3	3	0	40	60	100	3
8	BT-213N	Biochemistry Lab	0	0	3	3	0	40	60	100	3
		Total	15	4	9	28	375	245	180	800	
9	MPC-202N	Energy Studies*	3	0	0	3	75	25	0	100	3

**MPC-202N is a mandatory course and student has to get passing marks in order to qualify for the award of degree but its marks will not be added in the grand total.*

Bachelor of Technology (Biotechnology Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – IV

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	BT-202N	Molecular Biology	3	1	0	4	75	25	0	100	3
2	BT-204N	Immunology	3	1	0	4	75	25	0	100	3
3	BT-206N	Bio-analytical Techniques	3	1	0	4	75	25	0	100	3
4	BT-208N	Industrial Microbiology & Enzyme Technology	3	1	0	4	75	25	0	100	3
5	BT-210N	Organic Chemistry	3	1	0	4	75	25	0	100	3
6	BT-212N	Molecular Biology Lab	0	0	3	3	0	40	60	100	3
7	BT-214N	Immunology Lab	0	0	3	3	0	40	60	100	3
8	BT-216N	Bio-analytical Techniques Lab	0	0	3	3	0	40	60	100	3
9	BT-218N	Industrial Microbiology Lab	0	0	3	3	0	40	60	100	3
		Total	15	5	12	32	375	285	240	900	
10	MPC-201N	Environmental Studies*	3	0	0	3	75	25	0	100	3

**MPC-201N is a mandatory course and student has to get passing marks in order to qualify for the award of degree but its marks will not be added in the grand total.*

Note: All the students have to undergo 4-6 weeks industrial training after IVth semester and it will be evaluated in Vth semester.

Bachelor of Technology (Biotechnology Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – V

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	BT-301N	Recombinant DNA Technology	3	1	0	4	75	25	0	100	3
2	BT-303N	Bioreactor Analysis & Design	3	1	0	4	75	25	0	100	3
3	BT-305N	Bioprocess Engineering	3	1	0	4	75	25	0	100	3
4	BT-307N	Downstream Processing	3	1	0	4	75	25	0	100	3
5	BT-309N	Molecular Diagnostic Techniques & Healthcare Biotechnology	3	1	0	4	75	25	0	100	3
6	CSE-309N	Essentials of Information Technology	3	1	0	4	75	25	0	100	3
7	BT-313N	Recombinant DNA Technology Lab	0	0	3	3	0	40	60	100	3
8	BT-315N	Fermentation & DSP Lab	0	0	3	3	0	40	60	100	3
9	BT-317N	Diagnostic Techniques Lab	0	0	3	3	0	40	60	100	3
10	CSE-315N	Information Technology Lab	0	0	2	2	0	40	60	100	3
11	BT-319N	Industrial Training (Viva-Voce)*	0	0	2	2	0	40	60	100	
		Total	18	6	13	37	450	350	300	1100	

**The performance of the student will be evaluated after the presentation delivered and the report submitted by him/her related to Industrial training undertaken after IVth semester.*

Bachelor of Technology (Biotechnology Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – VI

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	BT-302N	Microbial Biotechnology	3	1	0	4	75	25	0	100	3
2	BT-304N	Plant Biotechnology	3	1	0	4	75	25	0	100	3
3	BT-306N	Animal Biotechnology	3	1	0	4	75	25	0	100	3
4	BT-308N	Principles of Biostatistics	3	1	0	4	75	25	0	100	3
5	BT-310N	Environmental Biotechnology	3	1	0	4	75	25	0	100	3
6	BT-312N	Food Biotechnology	3	0	0	3	75	25	0	100	3
7	BT-314N	Animal Cell Culture Lab	0	0	3	3	0	40	60	100	3
8	BT-316N	Plant Cell Culture Lab	0	0	3	3	0	40	60	100	3
9	BT-318N	Food & Environmental Biotechnology Lab	0	0	3	3	0	40	60	100	3
		Total	18	5	9	32	450	270	180	900	

Note: All the students have to undergo 4-6 weeks industrial training after VIth semester and it will be evaluated in VIIth semester.

Bachelor of Technology (Biotechnology Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – VII

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	BT-401N	Bioinformatics	3	1	0	4	75	25	0	100	3
2	BT-403N	Pharmaceutical Biotechnology	3	1	0	4	75	25	0	100	3
3		DEC -I*	3	1	0	4	75	25	0	100	3
4		DEC -II*	3	1	0	4	75	25	0	100	3
5	HS-401N	Entrepreneurship	3	0	0	3	75	25	0	100	3
6	BT-405N	Bioinformatics Lab	0	0	4	4	0	40	60	200	3
7	BT-407N	Seminar	0	0	2	2	0	100	0	100	
8	BT-409N	Project-I**	0	0	8	8	0	100	100	200	
9	BT-411N	Industrial Training (Viva-Voce)***	0	0	2	2		40	60	100	
		Total	15	4	16	35	375	405	220	1000	

* The students should select two Departmental Elective Courses (DEC) from the following list.

Course No.	DEC-I	Course No.	DEC-II
BT-413N	Biosensor and Bioinstrumentation	BT-421N	Advanced Management Information System and Information Technology
BT-415N	Biochips and Microarray Technology	BT-423N	Behavioural Neuroscience
BT-417N	Nano-Biotechnology	BT-425N	Herbal Drug Technology
BT-419N	Stem Cell Technology	BT-427N	Human Genetics and Human Genome

**The project should be initiated by the students in the beginning of VIIth semester and will be evaluated at the end of the semester on the basis of a presentation and report.

***The performance of the student will be evaluated after the presentation delivered and the report submitted by the student related to Industrial training undertaken after VIth semester.

Bachelor of Technology (Biotechnology Engineering)

SCHEME OF STUDIES/EXAMINATIONS

Semester – VIII

S. No.	Course No.	Course Title	Teaching Schedule				Allotment of Marks				Duration of Exam (Hrs.)
			L	T	P	Hours/Week	Theory	Sessional	Practical	Total	
1	BT-402N	Biocatalysis & Biotransformation	3	1	0	4	75	25	0	100	3
2		DEC -III*	3	1	0	4	75	25	0	100	3
3		DEC -IV*	3	1	0	4	75	25	0	100	3
4	BT-404N	Bioethics, IPR and Biosafety	3	0	0	3	75	25	0	100	3
5	BT-406N	Professional Practice & Communication Skills Lab	0	0	2	2	0	40	60	100	3
6	BT-408N	Advanced Techniques in Biotechnology Lab	0	0	2	2	0	40	60	100	3
7	BT-410N	Project-II	0	0	16	16	0	100	100	200	3
		Total	12	3	20	35	300	280	220	800	
8	BT-412N	General Proficiency**						100	0	100	0

**The student should select two Departmental Elective Courses (DEC) from the following list.*

Course No.	DEC-III	Course No.	DEC-IV
BT-414N	Virology	BT-422N	Developmental Biology
BT-416N	Molecular Modeling and Drug Design	BT-424N	Protein Engineering
BT-418N	Cancer Biology	BT-426N	Biomaterial Technology
BT-420N	Plant Physiology and Biotechnology	BT-428N	Food Process Engineering

***BT-412N is a mandatory course and student has to get passing marks in order to qualify for the award of degree but its marks will not be added in the grand total.*