



Semester - 1

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303104105	Environmental Science	0.00	1	0	0	-	-	50	-	-	20	-	50
303105102	Programming for Problem Solving	4.00	3	2	0	20	20	20	60	30	40	25	150
303106101	Basic Electrical Engineering	4.00	3	2	0	20	20	20	60	30	40	25	150
303109102	Elements of Mechanical Engineering	4.00	3	2	0	20	20	20	60	30	40	25	150
303191101	Mathematics-I	4.00	4	-	-	20	-	20	60	-	40	-	100
303192101	Engineering Physics-I	4.00	3	2	-	20	20	20	60	30	40	25	150
303193103	Communication Skills	2.00	-	-	2	-	-	100	-	-	40	-	100
	Total	22.00	17	8	2								850

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 40 Practical Passing % : 50



Semester - 2

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303100101	Workshop	2.00	0	4	0	-	40	-	-	60	-	50	100
303104155	Mechanics of Solids	4.00	3	2	0	20	20	20	60	30	40	25	150
303107151	Basic Electronics	4.00	3	2	0	20	20	20	60	30	40	25	150
303109101	Engineering Graphics	4.00	2	4	0	20	20	20	60	30	40	25	150
303191151	Mathematics-II	4.00	4	-	-	20	-	20	60	-	40	-	100
303193152	Advanced Communication & Technical Writing	2.00	-	-	2	-	-	100	-	-	40	-	100
	Total	20.00	12	12	2								750

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 40 Practical Passing % : 50



Semester - 3

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303109201	Thermodynamics	4.00	3	0	1	20	50	20	60	-	40	25	150
303109203	Material Engineering	3.00	3	0	0	20	-	20	60	-	40	-	100
303109204	Material Engineering Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303109205	Manufacturing Processes	3.00	3	0	0	20	-	20	60	-	40	-	100
303109206	Manufacturing Processes Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303109207	Kinematics and Theory of Machines	3.00	3	0	0	20	-	20	60	-	40	-	100
303109208	Kinematics and Theory of Machines Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303109210	Product Realization	1.00	0	2	0	-	50	-	-	-	-	25	50
303191204	PDE, Probability and Statistics	4.00	4	-	-	20	-	20	60	-	40	-	100
303193203	Professional Communication Skills	2.00	-	-	2	-	-	100	-	-	40	-	100
	Total	23.00	16	8	3								850

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 40 Practical Passing % : 50



Semester - 4

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303109251	Metrology and Instrumentation	3.00	3	0	0	20	-	20	60	-	40	-	100
303109252	Metrology and Instrumentation	1.00	0	2	0	-	20	-	-	30	-	25	50
303109253	Fluid Mechanics and Machines	3.00	3	0	0	20	-	20	60	-	40	-	100
303109254	Fluid Mechanics and Machines Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303109255	Manufacturing Technology	3.00	3	0	0	20	-	20	60	-	40	-	100
303109256	Manufacturing Technology Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303109257	Strength of Materials	4.00	3	0	1	20	50	20	60	-	40	25	150
303109259	Dynamics of Machines	3.00	3	0	0	20	-	20	60	-	40	-	100
303109260	Dynamics of Machines Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303193252	Professional Grooming and Personality Development	1.00	-	-	1	-	-	100	-	-	40	-	100
	Total	21.00	15	8	2								850

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 40 Practical Passing % : 50



Semester - 5

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303109301	Heat Transfer	3.00	3	0	0	20	-	20	60	-	40	-	100
303109302	Heat Transfer Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303109303	Automation and Control	3.00	3	0	0	20	-	20	60	-	40	-	100
303109304	Automation and Control Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303109305	Applied Thermodynamics	3.00	3	0	0	20	-	20	60	-	40	-	100
303109306	Applied Thermodynamics Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303109307	Industrial Engineering & Project Management	3.00	2	0	1	20	50	20	60	-	40	25	150
303109309	Machine Design - I	4.00	3	0	1	20	50	20	60	-	40	25	150
303193304	Professionalism & Corporate Ethics	1.00	-	-	1	-	-	100	-	-	40	-	100
	Open Elective – I Internet of Things	2.00	2	0	0	20	-	20	60	-	40	-	100
	Total	22.00	16	6	3								950

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 40 Practical Passing % : 50



Semester - 6

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303109351	Computer Aided Design	3.00	3	0	0	20	-	20	60	-	40	-	100
303109352	Computer Aided Design Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303109353	Machine Design - II	4.00	3	0	1	20	50	20	60	-	40	25	150
303109354	Minor Project	1.00	0	2	0	-	20	-	-	30	-	25	50
303193353	Employability Skills	1.00	-	-	1	-	-	100	-	-	40	-	100
	PEC 01-LAB (Compulsory Subjects :1)	1.00	0	2	0	-	20	-	-	30	-	-	50
	PEC 01 (Compulsory Subjects :1)	3.00	3	0	0	40	-	-	60	-	-	-	100
	PEC 02 (Compulsory Subjects :1)	4.00	3	0	1	40	50	-	60	-	-	-	150
	Open Elective – II Innovation and Entrepreneurship	2.00	2	0	0	60	-	40	-	-	40	-	100
	Total	19.00	14	6	3								950

Semester - 6 PEC 01

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303109381	IC Engine	3.00	3	0	0	20	-	20	60	-	40	-	100
303109383	Advanced Manufacturing Technology	3.00	3	0	0	20	-	20	60	-	40	-	100
303109385	Oil Hydraulics and Pneumatics	3.00	3	0	0	20	-	20	60	-	40	-	100



Semester - 6 PEC 01-LAB

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303109382	IC Engine Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303109384	Advanced Manufacturing Technology Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303109386	Oil Hydraulics and Pneumatics Lab	1.00	0	2	0	-	20	-	-	30	-	25	50

Semester - 6 PEC 02

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303109387	Power Plant Engineering	4.00	3	0	1	20	50	20	60	-	40	25	150
303109388	Product Development and Value Engineering	4.00	3	0	1	20	50	20	60	-	40	25	150
303109389	Quality Management Techniques	4.00	3	0	1	20	50	20	60	-	40	25	150

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 40 Practical Passing % : 50



Semester - 7

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303109401	Computer Aided Manufacturing	3.00	3	0	0	20	-	20	60	-	40	-	100
303109402	Computer Aided Manufacturing Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303109403	Finite Element Methods	3.00	3	0	0	20	-	20	60	-	40	-	100
303109404	Finite Element Methods Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303109406	Project-I	4.00	0	8	0	-	100	-	-	100	-	100	200
303109408	Summer Internship	2.00	0	4	0	-	100	-	-	-	-	50	100
	Open Elective 03 (Compulsory Subjects :1)	3.00	3	0	0	40	-	-	60	-	-	-	100
	PEC 03 (Compulsory Subjects :1)	3.00	3	0	0	40	-	-	60	-	-	-	100
	PEC 03-LAB (Compulsory Subjects :1)	1.00	0	2	0	-	20	-	-	30	-	-	50
	PEC 04 (Compulsory Subjects :1)	3.00	3	0	0	40	-	-	60	-	-	-	100
	PEC 04-LAB (Compulsory Subjects :1)	1.00	0	2	0	-	20	-	-	30	-	-	50
	Total	25.00	15	20	0								1000

Semester - 7 PEC 03

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303109431	Refrigeration and Air Conditioning	3.00	3	0	0	20	-	20	60	-	40	-	100
303109433	Tool Design	3.00	3	0	0	20	-	20	60	-	40	-	100
303109435	Automobile Engineering	3.00	3	0	0	20	-	20	60	-	40	-	100

Semester - 7 PEC 03-LAB

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303109432	Refrigeration and Air Conditioning Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303109434	Tool Design Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303109436	Automobile Engineering Lab	1.00	0	2	0	-	20	-	-	30	-	25	50

Semester - 7 PEC 04

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303109437	Renewable Energy Engineering	3.00	3	0	0	20	-	20	60	-	40	-	100
303109439	Tribology	3.00	3	0	0	20	-	20	60	-	40	-	100
303109441	Industrial Robotics	3.00	3	0	0	20	-	20	60	-	40	-	100

Semester - 7 PEC 04-LAB

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303109438	Renewable Energy Engineering Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303109440	Tribology Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303109442	Industrial Robotics Lab	1.00	0	2	0	-	20	-	-	30	-	25	50

Semester - 7 Open Elective 03

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303109443	Waste to Energy	3.00	3	0	0	20	-	20	60	-	40	-	100
303109444	Nano Technology	3.00	3	0	0	20	-	20	60	-	40	-	100
303109445	Industry 4.0	3.00	3	0	0	20	-	20	60	-	40	-	100
303109446	Electric Vehicles	3.00	3	0	0	20	-	20	60	-	40	-	100
303109447	Operation Research	3.00	3	0	0	20	-	20	60	-	40	-	100
303109448	Industrial Safety and Maintenance Engineering	3.00	3	0	0	20	-	20	60	-	40	-	100

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 40 Practical Passing % : 50



Semester - 8

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303109452	Project – II / Industrial Training	14.00	0	28	0	-	100	-	-	200	-	150	300

