

**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.	
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
303107153	Electronic Workshop	1.00	0	2	0	-	50	-	-	50	-	50	100
303109102	Elements of Mechanical Engineering	4.00	3	2	0	20	20	20	60	30	40	25	150
303111101	Biology	3.00	3	0	0	20	-	20	60	-	40	-	100
303191101	Mathematics-I	4.00	4	-	-	20	-	20	60	-	40	-	100
303193103	Communication Skills	2.00	-	-	2	-	-	100	-	-	40	-	100
	Total	22.00	16	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.	
303104105	Environmental Science	0.00	1	0	0	-	-	50	-	-	20	-	50
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
303192102	Engineering Physics-II	4.00	3	2	0	20	20	20	60	30	40	25	150
303193152	Advanced Communication & Technical Writing	2.00	-	-	2	-	-	100	-	-	40	-	100
	Total	18.00	13	8	2								700

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.	
303111201	Human Anatomy and Physiology	3.00	3	0	0	20	-	20	60	-	40	-	100
303111202	Human Anatomy and Physiology Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
303111203	Control Theory	3.00	3	-	-	20	-	20	60	-	40	-	100
303111204	Control Theory Lab	1.00	-	2	-	-	20	-	-	30	-	25	50
303111208	Product Realization	1.00	-	2	-	-	50	-	-	-	-	25	50
303113201	Analog and Digital Electronics	4.00	4	-	-	20	-	20	60	-	40	-	100
303113202	Analog and Digital Electronics Lab	1.00	-	2	-	-	20	-	-	30	-	25	50
303122201	Network Analysis and Synthesis	3.00	3	-	-	20	-	20	60	-	40	-	100
303122202	Network Analysis and Synthesis Lab	1.00	-	2	-	-	20	-	-	30	-	25	50
303191201	Complex Variables and PDE	4.00	4	-	-	20	-	20	60	-	40	-	100
303193203	Professional Communication Skills	2.00	-	-	2	-	-	100	-	-	40	-	100
	Total	24.00	17	10	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 - 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.	
303111251	Biomaterial and Implants	3.00	3	-	-	20	-	20	60	-	40	-	100
303111252	Biomaterial and Implants Lab	1.00	-	2	-	-	20	-	-	30	-	25	50
303111253	Biosensor and Transducers	3.00	3	-	-	20	-	20	60	-	40	-	100
303111254	Biosensor and Transducers Lab	1.00	-	2	-	-	20	-	-	30	-	25	50
303111255	Electronic Devices & Circuits	3.00	3	-	-	20	-	20	60	-	40	-	100
303111256	Electronic Devices & Circuits Lab	1.00	-	2	-	-	20	-	-	30	-	25	50
303111257	Signals and Systems for Biomedical	3.00	3	-	-	20	-	20	60	-	40	-	100
303111258	Signals and Systems for Biomedical Lab	1.00	-	2	-	-	20	-	-	30	-	25	50
303111260	Industrial/Hospital training	1.00	-	2	-	-	20	-	-	30	-	25	50
303113257	Microcontrollers and Interfacing	3.00	3	-	-	20	-	20	60	-	40	-	100
303113258	Microcontrollers and Interfacing Lab	1.00	-	2	-	-	20	-	-	30	-	25	50
303193252	Professional Grooming and Personality Development	1.00	-	-	1	-	-	100	-	-	40	-	100
Total		22.00	15	12	1								900

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



Semester - 5 Open Elective 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.	
203101346	Basic Aircraft Science	2	2	0	0	20	-	20	60	-	40	-	100
203104346	Disaster Preparedness and Planning	2	2	0	0	20	-	20	60	-	40	-	100
203105346	Cyber Security	2	2	0	0	20	-	20	60	-	40	-	100
203107346	Fundamentals of Communication Engineering	2	2	0	0	20	-	20	60	-	40	-	100
203108346	Internet of Things	2	2	0	0	20	-	20	60	-	40	-	100
203109346	Renewable Energy Sources	2	2	0	0	20	-	20	60	-	40	-	100

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.	
203111301	Biological Modelling and Simulation	3	3	0	0	20	-	20	60	-	40	-	100
203111302	Biological Modeling and Simulation Lab	1	0	2	0	-	20	-	-	30	-	25	50
203111303	Intellectual Property Rights and Bioethics	2	2	0	0	20	-	20	60	-	40	-	100
203111304	Mini Project	2	0	2	0	-	20	-	-	30	-	25	50
203111305	Medical Instrumentation and Surgical Procedures	3	3	0	0	20	-	20	60	-	40	-	100
203111306	Medical Instrumentation and Surgical Procedures Lab	1	0	2	0	-	20	-	-	30	-	25	50
203111307	Hospital Management Systems	2	2	0	0	20	-	20	60	-	40	-	100
203193301	Programming Skills and Placement Essentials (All Branches Except CSE/IT/ICT)	2	1	0	1	-	-	100	-	-	40	-	100



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.	
	Open Elective 01 (Compulsory Subjects :1)	2	2	0	0	40	-	-	60	-	-	-	100
	PEC 01-LAB (Compulsory Subjects :1)	1	0	2	0	-	20	-	-	30	-	-	50
	PEC 01 (Compulsory Subjects :1)	3	3	0	0	40	-	-	60	-	-	-	100
	Total	22	16	8	1								900

Semester - 5 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.	
203111331	Biomaterials & Implants	3	3	0	0	20	-	20	60	-	40	-	100
203111333	Nuclear medicine	3	3	0	0	20	-	20	60	-	40	-	100
203111335	Telemedicine	3	3	0	0	20	-	20	60	-	40	-	100

Semester - 5 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.	
203111332	Biomaterials & Implants Lab	1	0	2	0	-	20	-	-	30	-	25	50
203111334	Nuclear medicine Lab	1	0	2	0	-	20	-	-	30	-	25	50



Semester - 5 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.	
203111336	Telemedicine Lab	1	0	2	0	-	20	-	-	30	-	25	50

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



Semester - 6 Open Elective 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.	
203100351	Life Science	2	2	0	0	60	-	40	-	-	40	-	100
203100352	Biology for Engineers	2	2	0	0	60	-	40	-	-	40	-	100
203100353	Engineering Geology	2	2	0	0	60	-	40	-	-	40	-	100
203100354	Landscape Planning and Design	2	2	0	0	60	-	40	-	-	40	-	100
203100355	Fundamentals of Management	2	2	0	0	60	-	40	-	-	40	-	100
203100356	Corporate Social Responsibility	2	2	0	0	60	-	40	-	-	40	-	100
203100357	Innovation and Entrepreneurship	2	2	0	0	60	-	40	-	-	40	-	100
203100358	Constitution of India	2	2	0	0	60	-	40	-	-	40	-	100
203100359	Cyber Law & Ethics	2	2	0	0	60	-	40	-	-	40	-	100

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.	
203111351	Diagnostic Techniques and Instrumentation	3	3	0	0	20	-	20	60	-	40	-	100
203111352	Diagnostic Techniques and Instrumentation Lab	1	0	2	0	-	20	-	-	30	-	25	50
203111354	Mini Project	2	0	2	-	-	20	-	-	30	-	25	50
203111355	Biomedical Signal Processing	3	3	0	0	20	-	20	60	-	40	-	100
203111356	Biomedical Signal Processing Lab	1	0	2	0	-	20	-	-	30	-	25	50
203111357	Microcontroller and Interfacing	3	3	0	0	20	-	20	60	-	40	-	100



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.	
203111358	Microcontroller and Interfacing Lab	1	0	2	0	-	20	-	-	30	-	25	50
203193351	Advanced Programming and Placement Essentials	2	1	0	1	-	-	100	-	-	40	-	100
	Open Elective 02 (Compulsory Subjects :1)	2	2	0	0	100	-	-	-	-	-	-	100
	PEC 02 (Compulsory Subjects :1)	3	3	0	0	40	-	-	60	-	-	-	100
	PEC 02-LAB (Compulsory Subjects :1)	1	0	2	0	-	20	-	-	30	-	-	50
	Total	22	15	10	1								850

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.	
203111381	Bioinformatics	3	3	0	0	20	-	20	60	-	40	-	100
203111383	Biomechanics & Rehabilitation Engineering	3	3	0	0	20	-	20	60	-	40	-	100
203111385	Embedded System	3	3	0	0	20	-	20	60	-	40	-	100



Semester - 6 PEC 02-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.	
203111382	Bioinformatics Lab	1	0	2	0	-	20	-	-	30	-	25	50
203111384	Biomechanics & Rehabilitation Engineering Lab	1	0	2	0	-	20	-	-	30	-	25	50
203111386	Embedded System Lab	1	0	2	0	-	20	-	-	30	-	25	50

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.	
203111401	Medical Imaging Technology	3	3	0	0	20	-	20	60	-	40	-	100
203111402	Medical Imaging Technology Lab	1	0	2	0	-	20	-	-	30	-	25	50
203111403	Therapeutic Equipments	3	3	0	0	20	-	20	60	-	40	-	100
203111404	Therapeutic Equipments Lab	1	0	2	0	-	20	-	-	30	-	25	50
203111405	Analytical techniques & Instrumentation	3	3	0	0	20	-	20	60	-	40	-	100
203111406	Analytical techniques & Instrumentation Lab	1	0	2	0	-	20	-	-	30	-	25	50
203111407	Hospital Information System & Regulatory Standards	2	2	0	0	20	-	20	60	-	40	-	100
203111408	Virtual Biomedical Instrumentation	1	0	2	0	-	50	-	-	50	-	50	100
203111409	Summer Internship	1	0	0	0	-	50	-	-	-	-	25	50
203111410	Project-I	6	0	12	0	-	100	-	-	100	-	100	200
	PEC 03 (Compulsory Subjects :1)	3	3	0	0	40	-	-	60	-	-	-	100
	PEC 03-LAB (Compulsory Subjects :1)	1	0	2	0	-	20	-	-	30	-	-	50
	Total	26	14	22	0								1050

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.	
203111431	Nanotechnology for Medical Applications	3	3	0	0	20	-	20	60	-	40	-	100
203111433	Internet of Things	3	3	0	0	20	-	20	60	-	40	-	100



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.	
203111435	Artificial Organ & Rehabilitation Devices	3	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.	
203111432	Nanotechnology for Medical Applications Lab	1	0	2	0	-	20	-	-	30	-	25	50
203111434	Internet of Things Lab	1	0	2	0	-	20	-	-	30	-	25	50
203111436	Artificial Organ & Rehabilitation Devices Lab	1	0	2	0	-	20	-	-	30	-	25	50

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.	
203111452	Project-II	8	0	16	0	-	100	-	-	100	-	100	200
203111453	Digital image processing for Biomedical	3	3	0	0	20	-	20	60	-	40	-	100
203111454	Digital image processing for Biomedical Lab	1	0	2	0	-	20	-	-	30	-	25	50
	PEC 04 (Compulsory Subjects :1)	3	3	0	0	40	-	-	60	-	-	-	100
	Total	15	6	18	0								450

Semester - 8 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.	
203111481	Tissue Engineering	3	3	0	0	20	-	20	60	-	40	-	100
203111483	Radiotherapy	3	3	0	0	20	-	20	60	-	40	-	100
203111485	Biomedical microsystems	3	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