

**SCHEME OF TEACHING & EXAMINATION
INSTRUMENTATION TECHNOLOGY
III SEMESTER**

Subject Code	Title of the Subject	Teaching Dept.	Teaching hours/week		Examination			
			Theory	Practical	Duration (Hrs)	Marks		
						I. A	Theory/ Practical	Total
10MAT - 31	Engg. Mathematics - III	Mat	04		03	25	100	125
10ES – 32	Analog Electronic Ckts	@	04		03	25	100	125
10ES – 33	Logic Design	@	04		03	25	100	125
10ES – 34	Network Analysis	@	04		03	25	100	125
10IT– 35	Electronic Instrumentation	@	04		03	25	100	125
10IT– 36	Instrument Transducers	@	04		03	25	100	125
10ESL – 37	Analog Electronics Lab	@		03	03	25	50	75
10ESL – 38	Logic Design Lab	@		03	03	25	50	75
		Total	24	06	24	200	700	900

**SCHEME OF TEACHING & EXAMINATION
INSTRUMENTATION TECHNOLOGY
IV SEMESTER (COMMON TO EC/TC/ML/IT/BM)**

Subject Code	Title	Teach Dept.	Teaching hours/week		Examination			
			Theory	Practical	Duration (Hrs)	Marks		
						I. A	Theory/ Practical	Total
10MAT - 41	Engg. Mathematics – IV	Mat	04		03	25	100	125
10ES- 42	Microcontrollers	@	04		03	25	100	125
10ES – 43	Control Systems	@	04		03	25	100	125
10EC – 44	Signals & Systems	@	04		03	25	100	125
10EC– 45	Fundamentals of HDL	@	04		03	25	100	125
10EC – 46	Linear ICs & Applications	@	04		03	25	100	125
10ESL – 47	Microcontrollers Lab	@		03	03	25	50	75
10ECL – 48	HDL Lab	@		03	03	25	50	75
		Total	24	06	24	200	700	900

Note : @ indicates concerned discipline. **ES (for theory) & ESL (for Lab)** in the subject code indicates that the subject is common to electrical and electronics stream consisting of **EE/EC/IT/TC/ML/BM branches** of engineering.

SCHEME OF TEACHING AND EXAMINATION
B.E., INSTRUMENTATION TECHNOLOGY

V SEMESTER

SI No	Subject Code	Title of the Subject	Teaching Dept.	Hours/week		Examination			
				Theory	Practical	Duration (Hrs)	Marks		
							IA	External Marks	Total
1	10AL51	Management and Entrepreneurship	@	04	-	03	25	100	125
2	10IT52	Advanced Microprocessor & Peripherals	IT	04	-	03	25	100	125
3	10IT53	Digital Signal Processing	IT	04	-	03	25	100	125
4	10IT54	Process Instrumentation	IT	04	-	03	25	100	125
5	10IT55	Biomedical Instrumentation	IT	04	-	03	25	100	125
6	10IT56	C++ & Data Structures	IT	04	-	03	25	100	125
7	10ITL57	Analog IC Lab	IT	-	03	03	25	50	75
8	10ITL58	8086 Microprocessor Lab	IT	-	03	03	25	50	75
Total				24	06	24	200	700	900

@ Any Engineering Department or Department of Business Studies.

VI SEMESTER

SCHEME OF TEACHING AND EXAMINATION
B.E., INSTRUMENTATION TECHNOLOGY

Sl No	Subject Code	Title of the Subject	Teaching Dept.	Hours/week		Examination			
				Theory	Practical	Duration (Hrs)	Marks		
							IA	External Marks	Total
1	10IT61	Communication Systems	IT	04	-	03	25	100	125
2	10IT62	Advanced Control Systems	IT	04	-	03	25	100	125
3	10IT63	Digital Image Processing	IT	04	-	03	25	100	125
4	10IT64	Process Control Systems	IT	04	-	03	25	100	125
5	10IT65	Analytical and Pharmaceutical Instrumentation	IT	04	-	03	25	100	125
6	10IT66x	Elective-I (Group-A)	IT	04	-	03	25	100	125
7	10ITL67	Control System & Data Converters Lab	IT	-	03	03	25	50	75
8	10ITL68	Instrumentation Lab	IT	-	03	03	25	50	75
Total				24	06	24	200	700	900

Electives – I (Group – A)		
Sl.No.	Subject Code	Title of the Subject
1	10IT661	Computer networks
2	10IT662	PIC Microcontroller

3	10IT663	Applied Numerical Methods
4	10IT664	Operating Systems

VII SEMESTER

SCHEME OF TEACHING AND EXAMINATION
B.E., INSTRUMENTATION TECHNOLOGY

Sl. No	Subject Code	Title of the Subject	Teaching Dept.	Hours/week		Examination			
				Theory	Practical	Duration (Hrs)	Marks		
							IA	External Marks	Total
1	10IT71	VLSI Design	IT	04	-	03	25	100	125
2	10IT72	DSP Architecture	IT	04	-	03	25	100	125
3	10IT73	Robotics and control	IT	04	-	03	25	100	125
4	10IT74	Automation in Process Control	IT	04	-	03	25	100	125
5	10IT75x	Elective-2 (Group-B)	IT	04	-	03	25	100	125
6	10IT76x	Elective-3 (Group-C)	IT	04	-	03	25	100	125
7	10ITL77	DSP Lab	IT	-	03	03	25	50	75
8	10ITL78	Process Control Lab	IT	-	03	03	25	50	75
Total				24	06	24	200	700	900

Electives-2 (Group- B)			Electives-3 (Group- C)		
Sl. No	Subject Code	Title of the Subject	Sl. No	Subject Code	Title of the Subject
1	10IT751	ARM Processor	1	10IT761	Embedded System & RTOS
2	10IT752	Aircraft Instrumentation	2	10IT762	Distributed Sensor Network

3	10IT753	System Modeling	3	10IT763	Hardware-software co design
4	10IT754	Medical Imaging Systems	4	10MS769	Micro and Smart Systems Technology

VIII SEMESTER

Scheme of Teaching and Examination
B.E., Instrumentation Technology

Sl. No	Subject Code	Title of the Subject	Teaching Dept.	Hours/week		Examination Scheme			
				Theory	Practical	Duration (Hrs)	Marks		
							IA	Marks	Total
1	10IT81	Lasers & Opticals Instrumentation	IT	04	-	03	25	100	125
2	10IT82	Neural Networks & Fuzzy Logic	IT	04	-	03	25	100	125
3	10IT83x	Elective-4 (Group-D)	IT	04	-	03	25	100	125
4	10IT84x	Elective-5 (Group-E)	IT	04	-	03	25	100	125
5	10IT85	Project Work	IT	-	06	03	100	100	200
6	10IT86	Seminar	IT	-	03	-	50	-	50
Total				16	09	15	250	500	750

Electives-4 (Group- D)			Electives-5 (Group- E)		
Sl. No	Subject Code	Title of the Subject	Sl. No	Subject Code	Title of the Subject
1	10IT831	Pattern Recognition	1	10IT841	Low Power VLSI Design
2	10IT832	Speech Signal Processing	2	10IT842	Biomedical DSP
3	10IT833	Industrial Instrumentation	3	10IT843	Mobile Communication
4	10IT834	Wavelet Transforms	4	10IT844	Smart Sensors

