

RAJASTHAN TECHNICAL UNIVERSITY

Teaching And Examination Scheme for B.Tech. (4 Year Course)
In
Electronic Instrumentation & Control Engineering

Year : II

(Revised) Semester-III

Code	Subject	Hrs./week			Exam Hrs.	Maximum Marks		
		L	T	P		*I.A.	Exam	Total
A. Theory Papers								
3E11	Mathematics-III	3	1	-	3	20	80	100
3E12	Electronic Devices & Circuits	3	1	-	3	20	80	100
3E13	Circuit Analysis & synthesis	3	1	-	3	20	80	100
3E14	Electrical Measurements	3	1	-	3	20	80	100
3E15	Electrical Technology	3	0	-	3	20	80	100
3E16	Data Structures & Algorithms	3	0	-	3	20	80	100
B. Practical & Sessional :								
3E17	Humanities & Social Sciences	-	-	2	-	30	20	50
3E18	Computer Programming Lab-I	-	-	3	-	60	40	100
3E19	Electronics Lab-I	-	-	3	-	60	40	100
3E10	Electrical Engineering Lab	-	-	2	-	60	40	100
3EIDC Discipline & Extra Curricular activities :						-	-	50
GRAND TOTAL		18	4	10	-	-	-	1000

* I.A. – Internal Assessment

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Year : II

(Revised) Semester-IV

Code	Subject	Hrs./week			Exam Hrs.	Maximum Marks		
		L	T	P		*I.A.	Exam	Total
A. Theory Papers								
4E11	Control System I	3	1	-	3	20	80	100
4E12	Analog Electronics	3	1	-	3	20	80	100
4E13	Digital Electronics	3	0	-	3	20	80	100
4E14	Transducers in Instrumentation	3	0	-	3	20	80	100
4E15	Analog Communication	3	1	-	3	20	80	100
4E16	Elective (any one of the following)	3	1	-	3	20	80	100
4E16.1	Object Oriented Programming							
4E16.2	Electromagnetic Field Theory							
4E16.3	Mathematics -IV							
B. Practical & Sessional :								
4E17	Instrumentation Workshop	-	-	2	-	45	30	75
4E18	Electronics Lab-II	-	-	3	-	60	40	100
4E19	Measurement Lab	-	-	2	-	45	30	75
4E10	Transducer Lab	-	-	3	-	60	40	100
4EIDC Discipline & Extra Curricular activities :						-	-	50
GRAND TOTAL		18	4	10	-	-	-	1000

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Year : III

Semester-V

Code	Subject	Hrs./week			Exam Hrs.	Maximum Marks		
		L	T	P		*I.A.	Exam	Total
A. Theory Papers								
5E11	Signals & Systems	3	1	-	3	20	80	100
5E12	Linear Integrated Circuits	3	0	-	3	20	80	100
5E13	Modern Control System	3	1	-	3	20	80	100
5E14	Electronic Measurement & Instrumentation	3	1	-	3	20	80	100
5E15	Microprocessor	3	1	-	3	20	80	100
5E16 5E16.1 5E16.2 5E16.3	Elective (any one of the following) Optimization Techniques Computer Oriented Numerical & Statistical Methods Digital Communication	3	0	-	3	20	80	100
B. Practical & Sessional :								
5E17	Computer Programming Lab-II	-	-	3	-	40	35	75
5E18	Control Lab	-	-	3	-	60	40	100
5E19	Microprocessor Lab-I	-	-	2	-	60	40	100
5E110	Digital Electronics Lab	-	-	2	-	40	35	75
5EIDC Discipline & Extra Curricular activities :						-	-	50
GRAND TOTAL		18	4	10	-	-	-	1000

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Year : III

Semester-VI

Code	Subject	Hrs./week			Exam Hrs.	Maximum Marks		
		L	T	P		*I.A.	Exam	Total
A. Theory Papers								
6EI1	Process Control Systems	3	1	-	3	20	80	100
6EI2	Analytical & Environmental Instrumentation	3	0	-	3	20	80	100
6EI3	Industrial Electronics	3	1	-	3	20	80	100
6EI4	Biomedical Instrumentation	3	1	-	3	20	80	100
6EI5	Microcontroller & Embedded System	3	1	-	3	20	80	100
6EI6	Elective (any one of the following)	3	0	-	3	20	80	100
6EI6.1	Computer Architecture							
6EI6.2	Robotics							
6EI6.3	Random Variables and Stochastic Processes							
B. Practical & Sessional :								
6EI7	Analytical Instrumentation Lab	-	-	2	-	45	30	75
6EI8	Electronic Instrumentation Lab	-	-	3	-	60	40	100
6EI9	Control System Simulation Lab-I	-	-	2	-	45	30	75
6EI10	Process Control Lab	-	-	3	-	60	40	100
6EIDC Discipline & Extra Curricular activities :						-	-	50
GRAND TOTAL		18	4	10	-	-	-	1000

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Year : IV

Semester-VII

Code	Subject	Hrs./week			Exam Hrs.	Maximum Marks		
		L	T	P		*I.A.	Exam	Total
A. Theory Papers								
7EI1	Neural Networks and Fuzzy Logic Control	3	1	-	3	20	80	100
7EI2	Digital Signal Processing	3	1	-	3	20	80	100
7EI3	Computer Networks	3	1	-	3	20	80	100
7EI4	Fibre Optic Instrumentation	3	1	-	3	20	80	100
7EI5	Industrial Measurements	3	0	-	3	20	80	100
7EI6	Elective (any one of the following)	3	0	-	3	20	80	100
7EI6.1	Microwave Engineering							
7EI6.2	Advanced Microprocessors							
7EI6.3	Artificial Intelligence and Expert Systems							
B. Practical & Sessional :								
7EI7	Control System Simulation Lab-II	-	-	3	-	60	40	100
7EI8	Microprocessor & Microcontroller Lab	-	-	3	-	60	40	100
7EI9	Practical Training Seminar & Industrial Visit	-	-	2	-	60	40	100
7EI10	Project (Stage- I)	-	-	2	-	30	20	50
7EIDC Discipline & Extra Curricular activities :						-	-	50
GRAND TOTAL		18	4	10	-	-	-	1000

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Year : IV

Semester-VIII

Code	Subject	Hrs./week			Exam Hrs.	Maximum Marks		
		L	T	P		*I.A.	Exam	Total
A. Theory Papers								
8E11	Instrumentation in Industries	3	0	-	3	20	80	100
8E12	Non-Linear Control System	3	1	-	3	20	80	100
8E13	Distributed Control System & Communication Protocols	3	0	-	3	20	80	100
8E14	Elective (any one of the following)	3	1	-	3	20	80	100
8E14.1	Wireless Communication							
8E14.2	Operating Systems							
8E14.3	Image Processing & Pattern Recognition							
B. Practical & Sessional :								
8E15	Industrial Electronics Lab	-	-	3	-	45	30	75
8E16	Real Time Control Lab	-	-	3	-	60	40	100
8E17	Applied Instrumentation Lab	-	-	3	-	45	30	75
8E18	Seminar	-	-	2	-	60	40	100
8E19	Project (Stage- II)	-	-	4	-	120	80	200
8EIDC Discipline & Extra Curricular activities :						-	-	50
GRAND TOTAL		12	2	15	-	-	-	1000

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