

R.T.M. Nagpur University, Nagpur
FOUR-YEAR B.E. COURSE
(Revised Curriculum as per AICTE Model Curriculum)
SCHEME OF EXAMINATION FOR
B.E. FIRST YEAR (All Branches of Engineering)
(SEMESTER – I)

Code	Subject	Teaching Scheme				Credits				MARKS				
										Theory		Practical		Total Marks
		L	P	T/A	Total	L	P	T/A	Total	Internal	Univ.	Internal	Univ.	
BSE1-1T	Mathematics-I	3	-	1T	4	3	-	1	4	30	70	-	-	100
BSE1-2T	Applied Physics	3	-	1T	4	3	-	1	4	30	70	-	-	100
BSE1-3T	Energy and Environment	2	-	1T	3	2	-	1	3	30	70	-	-	100
BSE1-4T	Communication Skills	2	-	-	2	2	-	-	2	15	35	-	-	50
BSE1-5T	Engineering Graphics	1	-	-	1	1	-	-	1	15	35	-	-	50
BSE1-6T	Basics of Civil & Mechanical Engineering	4	-	-	4	-	-	-	AUDIT	50	-	-	-	AUDIT
BSE1-2P	Applied Physics Lab	-	3	-	3	-	1.5	-	1.5	-	-	25	25	50
BSE1-3P	Energy and Environment Lab	-	2	-	2	-	1	-	1	-	-	25	25	50
BSE1-4P	Communication Skills Lab	-	2	-	2	-	1	-	1	-	-	25	25	50
BSE1-5P	Engineering Graphics Lab	-	4	-	4	-	2	-	2	-	-	25	25	50
	Three weeks Induction Program													
Total		15	11	3T	29	11	5.5	3	19.5	120	280	100	100	600

- L- Lecture , P-Practical, T- Tutorial , A- Activity (Half Credit perHour)
- Audit course marks are not counted in totalmarks

**SCHEME OF EXAMINATION FOR
B.E. FIRST YEAR (All Branches of Engineering)
(SEMESTER – II)**

Code	Subject	Teaching Scheme				Credits				MARKS				
										Theory		Practical		Total Marks
		L	P	T/A	Total	L	P	T/A	Total	Internal	Univ.	Internal	Univ.	
BSE2-1T	Mathematics-II	3	-	1T	4	3	-	1	4	30	70	-	-	100
BSE2-2T	Advanced Engineering Materials	2	-	1A	3	2	-	1	3	30	70	-	-	100
BSE2-3T	Applied Chemistry	3	-	1T	4	3	-	1	4	30	70	-	-	100
BSE2-4T	Computational Skills	2	-	-	2	2	-	-	2	15	35	-	-	50
BSE2-6T	Basics of Electrical Engineering	2	-	-	2	2	-	-	2	15	35	-	-	50
BSE2-7T	Engineering Mechanics	2	-	-	2	2	-	-	2	15	35	-	-	50
BSE2-8T	Indian Culture & Constitution	2	-	-	2	-	-	-	AUDIT	50	-	-	-	AUDIT
BSE1-5P	Workshop Practices	-	4	-	4	-	2	-	2	-	-	50	50	100
BSE2-2P	Advanced Engineering Materials Lab	-	2	-	2	-	1	-	1	-	-	25	25	50
BSE2-3P	Applied Chemistry Lab	-	3	-	3	-	1.5	-	1.5	-	-	25	25	50
BSE2-4P	Computational Skills Lab	-	2	-	2	-	1	-	1	-	-	25	25	50
	Three weeks Induction Program													
Total		16	11	2T+1A	30	14	5.5	3	22.5	135	315	125	125	700

Guidelines

- Energy and Environment shall be taught by faculty of Chemistry and will come under board of Applied Science and Humanities (only by ChemistryDept)
- Advance Engineering Materials shall be taught by faculty of Physics and will come under board of Applied Science and Humanities (only by PhysicsDept)

R.T.M. Nagpur University, Nagpur

SCHEME OF EXAMINATION

B.E. ELECTRONICS & TELECOMMUNICATION / ELECTRONICS & COMMUNICATION ENGINEERING/ ELECTRONICS ENGINEERING (SEMESTER – III)

Code	Subject	Teaching Scheme				Credit				MARKS				
										Theory		Practical		Total Marks
		L	Practical	Tutorial/Activity	Total	L	P	T/A	Total	Internal	Univ.	Internal	Univ.	
BEETC-301	Applied Maths-III	3	-	-	3	3	-	-	3	30	70	-	-	100
BEETC-302T	Components for Electronic circuit design	3	-		3	3	-	-	3	30	70	-	-	100
BEETC-302P	Components for Electronic circuit design Lab	-	2	-	2	-	1	-	1	-	-	25	25	50
BEETC-303T	Digital System Design	3	-	1T	4	3	-	1	4	30	70	-	-	100
BEETC-303P	Digital System Design Lab	-	2	-	2	-	1	-	1	-	-	25	25	50
BEETC-304P	Network Theory	3	-	-	3	3	-	-	3	30	70	-	-	100
BEETC-305T	Signal & System	3	-	-	3	3	-	-	3	30	70	-	-	100
BEETC-306T	Measurement and Instrumentation	3	-	-	3	3	-	-	3	30	70	-	-	100
BEETC-307P	Electronics Workshop I Lab	-	2	-	2	-	1	-	1	-	-	25	25	50
BEETC-308T	Consumer affairs	2	-		2							-	-	Audit
	Total	20	6	1T	27	18	3	1	22	180	420	75	75	750

SCHEME OF EXAMINATION FOR
B.E. ELECTRONICS & TELECOMMUNICATION / ELECTRONICS & COMMUNICATION ENGINEERING/ ELECTRONICS
ENGINEERING
(SEMESTER – IV)

Code	Subject	Teaching Scheme				Credit				MARKS				
		L	Practical	Tutorial / Activity	Total	L	P	T/A	Total	Theory		Practical		Total Marks
										Internal	University	Internal	Univ.	
BEETC-401T	Microcontrollers & Applications	3	-	1T	4	3	-	1	4	30	70	-	-	100
BEETC-401P	Microcontrollers & Applications Lab	-	2	-	2	-	1	-	1	-	-	25	25	50
BEETC-402T	Analog & Digital Communications	3	-	1T	4	3	-	1	4	30	70	-	-	100
BEETC-403P	Analog and Digital Electronics Lab	-	2	-	2	-	1	-	1	-	-	25	25	50
BEETC-404T	Analog System Design	3	-	1T	4	3	-	1	4	30	70	-	-	100
BEETC-405T	Data structure & Algorithm	3	-	-	3	3	-	-	3	30	70	-	-	100
BEETC-406T	HSC: Numerical Mathematics and Probability Using MATLAB	3	-	-	3	3	-		3	30	70	-	-	100
BEETC-407T	Programming for problem solving	2	-	-	2	2	-	-	2	15	35	-	-	50
BEETC-407P	Programming for problem solving Lab	-	4	-	4	-	2	-	2			25	25	50
BEETC-408I	Internship								1			50	-	50
BEETC-409A	Universal human values	3			3	3			3	30	70			100
	Total	20	8	3T	31	20	4	3	28	195	455	125	75	850

- L- Lecture , P-Practical, T- Tutorial , A- Activity
- Audit course marks are not counted in total marks

**SCHEME OF EXAMINATION FOR
B.E. ELECTRONICS & TELECOMMUNICATION / ELECTRONICS & COMMUNICATION ENGINEERING
(SEMESTER – V)**

Code	Subject	Teaching Scheme				Credits				MARKS				
										Theory		Practical		Total Marks
		L	P	T/A	Total	L	P	T/A	Total	Internal	Univ.	Internal	Univ.	
BEETC-501T	Embedded System Design	2	-	1T	3	2	-	1	3	30	70	-	-	100
BEETC-501P	Embedded System Design Lab	-	2	-	2	-	1	-	1	-	-	25	25	50
BEETC-502T	Electromagnetic Waves	3	-	1T	4	3	-	1	4	30	70	-	-	100
BEETC-503T	Digital Signal Processing	3	-	-	3	3	-	-	3	30	70	-	-	100
BEETC-503P	Digital Signal Processing Lab	-	2	-	2	-	1	-	1	-	-	25	25	50
BEETC-504OT	HSC: IEED(Economics)	2	-	1A	3	2	-	1	3	30	70			100
BEETC-505PE	PEC-I	2	-	1T	3	2	-	1	3	30	70	-	-	100
BEETC-506P	Electronic Workshop II	-	2	-	2		1	-	1	-	-	25	25	50
BEETC-507A	Audit Course													AUDIT
	Total	12	6	3T+1A	22	12	3	4	19	150	350	75	75	650

**SCHEME OF EXAMINATION FOR
B.E. ELECTRONICS & TELECOMMUNICATION / ELECTRONICS & COMMUNICATION ENGINEERING
(SEMESTER – VI)**

Code	Subject	Teaching Scheme				Credit				MARKS				
										Theory		Practical		Total Marks
		L	P	T/A	Total	L	P	T/A	Total	Internal	Univ.	Internal	Univ.	
BEETC-601T	Computer Communication Network	2	-	-	2	2	-	-	2	30	70	-	-	100
BEETC-601P	Computer Communication Network Lab	-	2	-	2	-	1	-	1	-	-	25	25	50
BEETC-602T	Internet of Things (IOT)	2	-	-	2	2	-	-	2	30	70	-	-	100
BEETC-602P	IOT Lab	-	2	-	2	-	1	-	1	-	-	25	25	50
BEETC-603T	Wireless Sensor Network	2	-	-	2	2	-	-	2	30	70	-	-	100
BEETC-603P	Wireless Sensor Network Lab	-	2	-	2	-	1	-	1	-	-	25	25	50
BEETC-604PE	PEC-II	2	-	1T	3	2	-	1	3	30	70	-	-	100
BEETC-605OE	OE-I	2	-	1A	3	2	-	1	3	30	70	-	-	100
BEETC-606T	HSC: Effective Technical Communication	-	-	3A	3	-	-	3	3	-	-	50	-	50
BEETC-607I	Mini Project(Internship)	-	-	3A	3	--	-	3	3	-	-	25	25	50
BEETC-608A	Audit Course	-	-	-	-	-	-	-	-	-	-	-	-	AUDIT
Total		10	6	1T+7A	24	10	3	8	21	150	350	150	100	750

**SCHEME OF EXAMINATION FOR
B.E. ELECTRONICS & TELECOMMUNICATION / ELECTRONICS & COMMUNICATION ENGINEERING
(SEMESTER – VII)**

Code	Subject	Teaching Scheme				Credit				MARKS				
										Theory		Practical		Total Marks
		L	P	T/A	Total	L	P	T/A	Total	Internal	Univ.	Internal	Univ.	
BEETC-701PE	PEC–III	3	2	1T	6	3	1	1	5	30	70	25	25	150
BEETC-702PE	PEC-IV	3	2	1T	6	3	1	1	5	30	70	25	25	150
BEETC-703PE	PEC–V	3	-		3	3	-		3	30	70	-	-	100
BEETC-704OE	OE-II	2	-	1T	3	2	-	1	3	30	70	-	-	100
BEETC-705I	Seminar/Internship	-	2	-	2	-	1	-	1	-	-	50	-	50
BEETC-706A	IPR	1		1A	2	-	-	-	-	-	-	-	-	AUDIT
	Total	12	6	3T+1A	22	11	3	3	17	120	280	100	50	550

**SCHEME OF EXAMINATION FOR
B.E. ELECTRONICS & TELECOMMUNICATION / ELECTRONICS & COMMUNICATION ENGINEERING
(SEMESTER – VIII)**

Code	Subject	Teaching Scheme				Credit				MARKS				
		L	P	T/A	Total	L	P	T/A	Total	Theory		Practical		Total Marks
										Internal	Univ.	Internal	Univ.	
BEETC - 801PE	Program Elective –VI MOOC/NPTEL Course	3	-	-	3	3	-	-	3	30	70	-	-	100
BEETC - 802PE	Program Elective -VII MOOC/NPTEL Course	3	-	-	3	3	-	-	3	30	70	-	-	100
BEETC -803P	Project	-	12	-	12	-	6	-	6	-	-	50	50	100
	Seminar	-	-	2A	2	-	-	2	2	-	-	50	-	50
Total		6	12	2A	20	6	6	2	14	60	140	100	50	350

LIST OF ELECTIVE COURSES

Semester	Elective Type	Subject
V	Program Elective-I	1. Operating Systems
		2. Information Theory and Error Correcting Codes
		3. Electronic Design Techniques With HDL
		4. Sensors and Systems
VI	Program Elective-II	1. Computer Architecture
		2. Database Management Systems
		3. Antennas & Wave Propagation
		4. Control System Engineering
	Open Elective-I	1. Consumer Electronics
		2. Industrial Electronics
VII	Program Elective-III	1. Audio and Video Engineering
		2. Web Technologies
		3. Mobile Communications
		4. Robotics and Automation
	Program Elective-IV	1. Mixed Signal Design
		2. Data Science/ Cloud Computing
		3. Radar and Satellite Communication
		4. PLA and Scada
	Program Elective-V	1. Soft computing
		2. Fundamentals of Machine Learning
		3. Optical Communication
		4. Biomedical Engineering
	Open Elective II	1. Mechatronics
		2. Bioengineering
VIII	Mooc I	1. CMOS VLSI Design
		2. Artificial Intelligence
		3. Evolution of Air Interface towards 5G
		4. MEMS
	MOOC	1. VLSI Signal Processing
		2. Android Programming