

Four Year Degree Course in Bachelor of Engineering Branch : B.E./B.Tech./B.Text. E.(Common to all the Branches)
Semester Pattern (Choice Based Credit system)

Appendix-A

Semester :FIRST/ SECOND GROUP A																	
		TEACHING SCHEME							EXAMINATION SCHEME								
Sr. No.	Subject Code	Subject	HOURS / WEEK			Total HOURS/WEEK	CREDITS	THEORY					PRACTICAL				
			Lecture	Tutorial	P/D			DURATION OF PAPER (Hr.)	MAX. MARKS THEORY PAPER	MAX. MARKS COLLEGE ASSESMENT	TOTAL	MIN. PASSING MARKS	MAX. MARKS		TOTAL	MIN. PASSING MARKS	
													EXTERNAL	INTERNAL			
THEORY																	
01	1 A 1	Engineering Mathematics I	3	1	-	4	4	3	80	20	100	40	-	-	-	-	
02	1 A 2	Engineering Physics	4	-	-	4	4	3	80	20	100	40	-	-	-	-	
03	1 A 3	Engineering Mechanics	3	1	-	4	4	3	80	20	100	40	-	-	-	-	
04	1 A 4	Computer Programming	3	-	-	3	3	3	80	20	100	40	-	-	-	-	
PRACTICALS																	
05	1 A 5	Workshop Practice	-	-	4	4	2	-	-	-	-	-	25	25	50	25	
06	1 A 6	Engineering Physics Laboratory	-	-	2	2	1	-	-	-	-	-	25	25	50	25	
07	1 A 7	Engineering Mechanics Laboratory	-	-	2	2	1	-	-	-	-	-	25	25	50	25	
08	1 A 8	Computer Programming Laboratory	-	-	2	2	1	-	-	-	-	-	25	25	50	25	
		TOTAL	13	2	10	25	20				400				200		
Note- An Induction Program of Three Weeks duration to be offered to the students at the start of First Year.													TOTAL	600			
Semester :FIRST/ SECOND GROUP B																	
THEORY																	
01	1 B 1	Engineering Mathematics II	3	1	-	4	4	3	80	20	100	40	-	-	-	-	
02	1 B 2	Engineering Chemistry	4	-	-	4	4	3	80	20	100	40	-	-	-	-	
03	1 B 3	Basic Electrical Engineering	3	1	-	4	4	3	80	20	100	40	-	-	-	-	
04	1 B 4	Engineering Graphics	3	-	-	3	3	3	80	20	100	40	-	-	-	-	
PRACTICALS																	
05	1 B 5	English Communication Skills Laboratory	-	-	4	4	2	-	-	-	-	-	25	25	50	25	
06	1 B 6	Engineering Chemistry Laboratory	-	-	2	2	1	-	-	-	-	-	25	25	50	25	
07	1 B 7	Basic Electrical Engineering Laboratory	-	-	2	2	1	-	-	-	-	-	25	25	50	25	
08	1 B 8	Engineering Graphics Laboratory	-	-	2	2	1	-	-	-	-	-	25	25	50	25	
		TOTAL	13	2	10	25	20				400				200		
													TOTAL	600			

Note- An Induction Program of Three Weeks duration to be offered to the students at the start of First Year.

Four Year Degree Course in Bachelor of Engineering Branch: **ELECTRICAL ENGINEERING (ELECTRONICS & POWER)**
Semester Pattern (Choice Based Credit Grade System)

SEMESTER : THIRD																	
Sr. No.	Subject Code	Subject	TEACHING SCHEME					EXAMINATION SCHEME									
			HOURS / WEEK			Total HOURS/WEEK	CREDITS	THEORY					PRACTICAL				
			Lecture	Tutorial	P/D			Duration Of Paper (Hr.)	Max. Marks Theory Paper	Internal Marks	Total	Min. Passing Marks	Max. Marks		Total	Min. Passing Marks	
THEORY																	
01	3EP01	Engineering Mathematics-III	3	1	--	4	4	3	80	20	100	40	--	--	--	--	
02	3EP02	Electrical Circuit Analysis	2	1	--	3	3	3	80	20	100	40	--	--	--	--	
03	3EP03	Electrical Machines - I	3	--	--	3	3	3	80	20	100	40	--	--	--	--	
04	3EP04	Energy Resources & Generation	3	--	--	3	3	3	80	20	100	40	--	--	--	--	
05	3EP05	Electronic Devices & Circuits	3	--	--	3	3	3	80	20	100	40	--	--	--	--	
06	4ES06	**Environmental Studies	2	--	--	2	0	--	--	--	--	--	-	-	-	-	
PRACTICALS / DRAWING / DESIGN																	
07	3EP06	Electrical Circuit Analysis – lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25	
08	3EP07	Electrical Machines – I – lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25	
09	3EP08	Electronic Devices & Circuits – lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25	
10	3EP09	Electrical Technology - lab	--	--	2	2	1	--	--	--	--	--	50	--	50	25	
Total			16	2	8	26	20	--	--	--	500	--	--	--	200	--	
TOTAL															700		

Note: **The Examination of the Subject Environmental Science shall be conducted in IV Semester. [As per Ordinance of 42/ 2005]

SEMESTER : FOURTH

Sr. No.	Subject Code	Subject	TEACHING SCHEME					EXAMINATION SCHEME									
			HOURS / WEEK			Total HOURS/WEEK	CREDITS	THEORY					PRACTICAL				
			Lecture	Tutorial	P/D			Duration Of Paper (Hr.)	Max. Marks Theory Paper	Internal Marks	Total	Min. Passing Marks	Max. Marks		Total	Min. Passing Marks	
													Int.	Ext.			
THEORY																	
01	4EP01	Electromagnetic Fields	2	1	--	3	3	3	80	20	100	40	--	--	--	--	
02	4EP02	Electrical Measurements & Instrumentation	3	--	--	3	3	3	80	20	100	40	--	--	--	--	
03	4EP03	Control Systems	3	--	--	3	3	3	80	20	100	40	--	--	--	--	
04	4EP04	Numerical Methods & Optimization Techniques	2	1	--	3	3	3	80	20	100	40	--	--	--	--	
05	4EP05	Analog & Digital Circuits	3	1	--	4	4	3	80	20	100	40	--	--	--	--	
06	4ES06	**Environmental Studies	2	--	--	2	2	3	80	20	100	40	-	-	-	-	
PRACTICALS / DRAWING / DESIGN																	
07	4EP06	Electrical Measurements & Instrumentation – lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25	
08	4EP07	Control Systems - lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25	
09	4EP08	Analog & Digital Circuits - lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25	
10	4EP09	Electronics Technology – lab	--	--	2	2	1	--	--	--	--	--	50	--	50	25	
Total			15	3	8	26	22	--	--	--	600	--	--	--	200	--	
TOTAL															800		

Note: **The Examination of the Subject Environmental Science shall be conducted in IV Semester. [As per Ordinance of 42/ 2005]

SEMESTER : FIFTH

Sr. No.	Subject Code	Subject	TEACHING SCHEME					EXAMINATION SCHEME									
			HOURS / WEEK			Total HOURS/WEEK	CREDITS	THEORY					PRACTICAL				
			Lecture	Tutorial	P/D			Duration Of Paper (Hr.)	Max. Marks Theory Paper	Internal Marks	Total	Min. Passing Marks	Max. Marks		Total	Min. Passing Marks	
		Int.	Ext.														
THEORY																	
01	5EP01	Power System – I	4	--	--	3	3	3	80	20	100	40	--	--	--	--	
02	5EP02	Microprocessor & Microcontroller	3	--	--	3	3	3	80	20	100	40	--	--	--	--	
03	5EP03	Electrical Machines - II	3	--	--	4	4	3	80	20	100	40	--	--	--	--	
04	5EP04	Professional Elective –I (PE-I)	3	--	--	3	3	3	80	20	100	40	--	--	--	--	
05	5EP05	Open Elective – I (OE-I)	3	--	--	3	3	3	80	20	100	40	--	--	--	--	
PRACTICALS / DRAWING / DESIGN																	
06	5EP06	Power System – I Lab	--	--	2	2	1	--	--	--	--	--	25	25	50	25	
07	5EP07	Microprocessor & Microcontroller- Lab	--	--	2	2	1	--	--	--	--	--	25	25	50	25	
08	5EP08	Electrical Machines – II - lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25	
09	5EP09	Information & Communication Tech.-lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25	
Total			16	0	8	24	20	--	--	--	500	--	--	--	200	--	
															TOTAL		700

Prof. Elective-I: I) Signal & Systems II) Network Analysis & Synthesis III) Electronic Communication Theory

Open Elective – I : (For other disciplines) (i) Electrical Drives (i). Power Supply Systems (iii) Power Plant Engineering

An Orientation Program of 15 Hours duration/ MOOCs on **Indian Constitution** to be offered during **V semester**.

Open Elective-I to be opted from the university's faculty of Engineering & Technology offered inter disciplinary courses or MOOCs courses pertaining to the Engineering Profession.

SEMESTER : SIXTH

Sr. No.	Subject Code	Subject	TEACHING SCHEME					EXAMINATION SCHEME									
			HOURS / WEEK			CREDITS	THEORY					PRACTICAL					
			Lecture	Tutorial	P/D		Total HOURS/WEEK	Duration Of Paper (Hr.)	Max. Marks Theory Paper	Internal Marks	Total	Min. Passing Marks	Max. Marks		Total	Min. Passing Marks	
													Int.	Ext.			
THEORY																	
01	6EP01	Power Electronics	4	--	--	4	4	3	80	20	100	40	--	--	--	--	
02	6EP02	Electrical Energy Distribution & Utilization	3	--	--	3	3	3	80	20	100	40	--	--	--	--	
03	6EP03	Computer Aided Electrical Machine Design	3	--	--	3	3	3	80	20	100	40	--	--	--	--	
04	6EP04	Prof. Elective -II (PE-II)	3	--	--	3	3	3	80	20	100	40	--	--	--	--	
05	6EP05	Open Elective - II (OE-II)	3	--	--	3	3	3	80	20	100	40	--	--	--	--	
PRACTICALS / DRAWING / DESIGN																	
06	6EP06	Power Electronics – lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25	
07	6EP07	Electrical Energy Distribution & Utilization – lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25	
08	6EP08	Computer Aided Electrical Machine Design –lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25	
09	6EP09	Computer Technology – lab	--	--	2	2	1	--	--	--	--	--	50	--	50	25	
Total			16	0	8	24	20	--	--	--	500	--	--	--	200	--	
TOTAL															700		

Professional Elective – II: (I) Advanced Control Systems (II) Process Control System (III) Industrial Electrical System

Open Elective – II: (For other disciplines) (i) Energy Audit & Management (ii) Electrical Estimation & Costing (iii) Electrical Materials

An Orientation Program of 15 Hours duration/ MOOCs on **Indian Traditional Knowledge** to be offered during **VI semester**.

An Orientation Program of 15 Hours duration / MOOCs on **Entrepreneurship Development** to be offered during **VI semester**.

SEMESTER : SEVENTH

Sr. No.	Subject Code	Subject	TEACHING SCHEME					EXAMINATION SCHEME								
			HOURS / WEEK			Total HOURS/WEEK	CREDITS	THEORY					PRACTICAL			
			Lecture	Tutorial	P/D			Duration Of Paper (Hr.)	Max. Marks Theory Paper	Internal Marks	Total	Min. Passing Marks	Max. Marks		Total	Min. Passing Marks
													Int.	Ext.		
THEORY																
01	7EP01	Power System II	3	--	--	3	3	3	80	20	100	40	--	--	--	--
02	7EP02	Digital Signal Processing	3	--	--	3	3	3	80	20	100	40	--	--	--	--
03	7EP03	Entrepreneurship & Project Management	3	--	--	3	3	3	80	20	100	40	--	--	--	--
04	7EP04	Prof. Elective - III (PE-III)	3	--	--	3	3	3	80	20	100	40	--	--	--	--
05	7EP05	Prof. Elective- IV (PE-IV)	3	--	--	3	3	3	80	20	100	40	--	--	--	--
PRACTICALS / DRAWING / DESIGN																
06	7EP06	Power System II Lab	--	--	2	2	1	--	--	--	--	--	25	25	50	25
07	7EP07	Digital Signal Processing - Lab	--	--	2	2	1	--	--	--	--	--	25	25	50	25
08	7EP08	Entrepreneurship & Project Management Lab	--	--	2	2	1	--	--	--	--	--	50	--	50	25
09	7EP09	Project & Seminar	--	--	8	8	4	--	--	--	--	--	50	--	50	25
Total			15	0	14	29	22	--	--	--	500	--	--	--	200	--
TOTAL															700	
7EP04: PE(III) : (i) Wind & Solar Energy Systems (ii) Electrical Estimation & Costing (iii) Power System Operation & Control																
7EP05: PE(IV) : (i) Artificial Intelligence (ii) Electrical Drives & Control (iii) Distributed Automation																

SEMESTER : EIGHT

Sr. No.	Subject Code	Subject	TEACHING SCHEME					EXAMINATION SCHEME									
			HOURS / WEEK			Total HOURS/WEEK	CREDITS	THEORY					PRACTICAL				
			Lecture	Tutorial	P/D			Duration Of Paper (Hr.)	Max. Marks Theory Paper	Internal Marks	Total	Min. Passing Marks	Max. Marks		Total	Min. Passing Marks	
													Int.	Ext.			
THEORY																	
01	8EP01	Power System Protection	3	--	--	3	3	3	80	20	100	40	--	--	--	--	
02	8EP02	Computer Methods in Power System Analysis	3	--	--	3	3	3	80	20	100	40	--	--	--	--	
03	8EP03	Prof. Elective-V (PE-V)	3	--	--	3	3	3	80	20	100	40	--	--	--	--	
04	8EP04	Prof. Elective-VI (PE-VI)	3	--	--	3	3	3	80	20	100	40	--	--	--	--	
PRACTICALS / DRAWING / DESIGN																	
05	8EP05	Power System Protection - Lab	--	--	2	2	1	--	--	--	--	--	25	25	50	25	
06	8EP06	Computer Methods in Power System Analysis- Lab	--	--	2	2	1	--	--	--	--	--	25	25	50	25	
07	8EP07	Project & Seminar	--	--	12	12	6	--	--	--	--	--	75	75	150	75	
Total			12	--	16	28	20	--	--	--	400	--	--	--	250	--	
TOTAL															650		
8EP03 : PE-V: (i) High Voltage Engineering (ii) HVDC & Facts (iii) Smart Grid System																	
8EP04 : PE-VI: (i) Power Quality (ii) Electrical Energy Conservation & Auditing (iii) Electric & Hybrid Vehicle																	