COURSE STRUCTURE & SYLLABUS (2017-18)
I Year – I Semester

S.No.	Subject Code	Subject	L	T	P/D	C	Max Marks CIE	Max Marks SEE
1	6H101	English – I	2	-	---	2	25	75
2	6H111	Engineering Mathematics –I	3	2	---	3	25	75
3	6H121	Engineering Physics – I	3	1	---	3	25	75
4	6H131	Engineering Chemistry	2	1	---	2	25	75
5	6F101	Computer Programming	3	1	---	3	25	75
6	6B101	Engineering Drawing – I	1	1	4	3	25	75
7	6H171	English Language Communication Skills Lab	---	---	2	1	25	75
8	6H181	Engineering Physics Lab – I	---	---	2	1	25	75
9	6H186	Engineering Chemistry Lab	---	---	2	1	25	75
10	6F171	C Programming Lab	---	---	4	2	25	75
11	6B171	Engineering Workshop -I	---	---	2	1	25	75
12	6F172	IT work shop – I	---	--	2	1	25	75
13	6A191	Seminar on Current Affairs/Technical Topic	---	---	2	1	100	---
		Total	**14**	**6**	**15**	**24**	**400**	**900**

CIE – Continuous Internal Evaluation

SEE – Semester End Examination

I Year – II Semester

S.No.	Subject Code	Subject	L	T	P/D	C	Max Marks CIE	Max Marks SEE
1	6H202	English – II	2	2	---	2	25	75
2	6H213	Engineering Mathematics – II	3	2	---	3	25	75
3	6H223	Applied Physics - I	3	1	---	3	25	75
4	6E201	Data Structures	3	1	---	3	25	75
5	6B202	Engineering Drawing – II	1	1	2	2	25	75
6	**6H232**	**Environmental and Applied Chemistry**	**2**	**1**	**---**	**2**	**25**	**75**
7	6A201	Circuits & Networks – I	3	2	---	3	25	75
8	6ZC03	Gender Sensitization, Values, Ethics and Yoga	1	1	--	1	25	75
9	6E271	Data Structures Lab (C, C++)	---	---	4	2	25	75
10	6B272	Engineering Workshop – I	---	---	2	1	25	75
11	6H282	Applied Physics Lab- I	---	---	2/2	1	25	75
12	6A292	Seminar on Science & Its Impact	---	---	2	1	100	---
		Total	**18**	**11**	**9**	**24**	**375**	**825**

II Year – I Semester

S.No.	Subject Code	Subject	L	T	P/D	C	Max Marks CIE	Max Marks SEE
1	6H316	Engineering Mathematics-III	3	2	---	3	25	75
2	6CC02	Switching Theory and Logic Design	3	1	---	3	25	75
3	6CC01	Electronic Devices and Circuits	3	1	---	3	25	75
4	6A302	Electro Magnetic Fields	2	2	---	2	25	75
5	6A303	Electrical Machines – I	3	1	---	3	25	75
6	6A304	Circuits & Networks – II	3	1	---	3	25	75
7	6BC66	Basic Mechanical Engineering	2	2		2	25	75
8	6H373	Functional Communicative English (FCE)	1	2	--	1	25	75
9	6CC71	Electronic Devices and Circuits Lab	---	---	3	2	25	75
10	6A371	Electrical Circuits and Simulation Lab	---	---	3	2	25	75
11	6A393	Seminar on Technology and Its Impact	---	---	2	1	100	---
		Total	**19**	**12**	**8**	**25**	**350**	**750**

II Year – II Semester

S.No.	Subject Code	Subject	L	T	P/D	C	Max Marks CIE	Max Marks SEE
1	6HC18	Probability and Statistics	3	2	---	3	25	75
2	6A405	Electrical Machines – II	3	1	---	3	25	75
3	6A406	Power System – I	3	1	---	3	25	75
4	6AC07	Control Systems	3	1	---	3	25	75
5	6C446	Electronic Circuits	3	1	---	3	25	75
6	6EC70	Java Programming	2	2	---	2	25	75
7	6A472	Comprehensive Viva-Voce- I	---	---	---	1	50	50
8	6A473	Electrical Machines Lab – I	---	---	3	2	25	75
9	6C483	Electronic Circuits Lab	---	---	3	2	25	75
10	6A494	Technical Seminar	---	---	2	1	100	---
		Total	**17**	**8**	**8**	**23**	**350**	**650**

III Year – I Semester

S.No.	Subject Code	Subject	L	T	P/D	C	Max Marks CIE	Max Marks SEE
1	6ZC01	Managerial Economics and Financial Analysis	2	1	---	2	25	75
2	6CC16	Linear and Digital IC Applications	3	1	---	3	25	75
3	6A508	Electrical Machines – III	3	1	--	3	25	75
4	6A509	Power Electronics	3	1	--	3	25	75
5	6A510	Power Systems – II	2	1	--	2	25	75
6		**Open Elective – I**	2	1	--	2	25	75
7	6H576	Quantitative Aptitude	--	1	1	1	25	75
8	6A574	Group Project	--	--	2	1	25	75
9	6CC81	Linear and Digital IC Applications Lab	--	--	3	2	25	75
10	6A575	Control Systems & Simulation Lab	--	--	3	2	25	75
11	6A595	Technical Literature Review and Seminar-I	---	---	2	1	100	---
12	6A583	Summer Internship Evaluation	-	-	-	1	25	75
		Total	15	7	11	23	375	825

Open Elective – I

6CC57	Fundamentals of Signals And Systems	Electronics Stream
6FC32	Data Base Systems	Computer Stream
6ZC20	Product and Services	Technology Entrepreneurship
6ZC22	Basics of Entrepreneurship	Entrepreneurship Stream
6ZC25	Basics of Indian Economy	Social Sciences Stream
6ZC05	Banking Operations, Insurance and Risk Management	Finance Stream
6EC26	SAP-I : SAP ABAP workbench fundamentals	SAP Stream

III Year – II Semester

S.No	Subject Code	Subject	L	T	P/D	C	Max Marks CIE	Max Marks SEE
1	6GC49	Intellectual Property Rights	1	1	--	1	25	75
2	6DC05	Microprocessor and Microcontrollers	3	1	--	3	25	75
3	6A611	Switch Gear and Protection	3	1	---	3	25	75
4	6A612	Measurements & Instrumentation	3	1	--	3	25	75
5		**Professional Elective -I**	3	1	---	3	25	75
6		**Open Elective – II**	2	1	---	2	25	75
7		**Open Elective – III**	2	1	--	2	25	75
8	6H677	Logical Reasoning	---	1	1	1	25	75
9	**6HC74**	**Effective English Communication & Soft Skills**	**1**	**--**	**--**	**1**	**25**	**75**

10	6A676	Comprehensive Viva-Voce- II	--	--	--	1	50	50
11	6A677	Electrical Machines Lab – II	--	--	3	2	25	75
12	6A678	Power Electronics & Simulation Lab	--	--	3	2	25	75
13	6A696	Technical Literature Review and Seminar-II	---	---	2	1	100	---
		Total	**18**	**8**	**9**	**25**	**425**	**875**

Professional Elective –I

6A625	Advanced Control Systems
6A636	**Special Electrical Machines**
6A617	High Voltage Engineering
6CC15	Digital Signal Processing
6A633	Switched Mode Power Conversion

Open Elective – II

6EC67	Operating Systems Concepts	Computer Stream
6ZC24	Innovation and Design Thinking	Entrepreneurship Stream
6ZC26	Basics of Polity and Ecology	Social Sciences Stream
6ZC24	Innovation and Design Thinking	Technology Entrepreneurship
6ZC19	Entrepreneurship Project Management and Structured Finance	Finance Stream
6EC27	SAP-II : SAP ABAP workbench concepts	SAP Stream

Open Elective – III

6FC35	Python Programming Concepts	Computer Stream
6FC33	**Data Analytics**	**Computer Stream**
6ZC23	Advanced Entrepreneurship	Entrepreneurship Stream
6ZC27	Indian History, Culture and Geography	Social Sciences Stream
6ZC21	General Management and Entrepreneurship	Technology Entrepreneurship
6ZC15	Financial Institutions, Markets and Services	Finance Stream

Note: Industry Oriented Mini Project will be conducted by all students in summer vacation of III / IV B.Tech, II – Semester for a period of One Month. The report must be submitted in IV / IV B.Tech I –Semester and will have to be defended. Marks allotted are "100" and Two Credits are provided.

IV Year – I Semester

S. No.	Subject Code	Subject	L	T	P/D	C	Max Marks	
							CIE	SEE
1	6ZC02	Management Science	3	-	---	3	25	75
2	6A714	Power Systems Analysis and Control	3	1	--	3	25	75

3	6A713	Power Semi Conductor Drives	3	1	--	3	25	75
4	6A716	Utilization of Electrical Energy	2	1	---	2	25	75
5		**Professional Elective – II**	3	1	--	3	25	75
6		**Professional Elective – III**	3	2	--	3	25	75
7	6A779	Project –I	--	--	6	3	100	---
8	6A780	Industry Oriented Mini Project	--	--	--	2	25	75
9	6A781	Electrical workshop	--	--	3	1	25	75
10	6DC71	Microprocessor and Microcontrollers Lab	--	--	3	2	25	75
11	6A782	Measurements & Instrumentation Lab	--	--	3	2	25	75
12	6A797	Technical Literature Review and Seminar-III	---	---	2	1	100	---
			17	**6**	**17**	**28**	**450**	**750**

Professional Elective –II

6A715	Renewable Energy Sources
6A739	Sensors and Actuators
6CC50	Fundamentals of VLSI and Embedded Systems
6A737	Advanced Power Electronics
6A731	Smart Grid
6A738	EHV – AC Transmission

Professional Elective - III

6A718	Optimization Techniques
6A734	HVDC & FACTS
6A724	Digital Control Systems
6A728	Power Quality

IV Year – II Semester

S.No.	Subject Code	Subject	L	T	P/D	C	Max Marks	
							CIE	SEE
1		**Professional Elective – IV**	3	1	--	3	25	75
2		**Professional Elective – V**	3	1	---	3	25	75
3	6A883	Project Phase –II	---	---	24	12	50	150
4	6A884	Comprehensive Viva-voce-III	---	---	---	1	50	50
5	6A898	Technical Literature Review and Seminar-IV	---	---	2	1	100	---
	Total		**6**	**2**	**26**	**20**	**250**	**350**

Professional Elective – IV

6A820	Electrical Distribution Systems
6A822	Electrical Machine Design
6EC21	Neural Networks
6A829	**Power System Deregulation**

Professional Elective – V

6A840	Energy Auditing and Maintaince
6A826	Programmable Logic Controllers
6A841	Power System Reliability and Planning
6A830	Real Time Control of Power Systems
6A827	Reactive Power Control & Management

L - Lectures;   T - Tutorial;   P/D - Practical / Drawing;   C – Credit
Note: All End Examinations (Theory and Practical) are of **Three** hours duration.