

Scheme of Teaching and Examination for B.E (CS&E)

SEMESTER: I

Sl. No	Subject Code	Course Title	Teaching Department	Contact Hours				Credits	Marks			Exam Duration in Hours
				L	T	P	TOTAL		CIE	SEE	Total	
1	MA110	Engg. Mathematics – I (Advanced Calculus)	Maths	4	0	0	4	4	50	50	100	03
2	CH110	Engineering Chemistry	Chemistry	4	0	0	4	4	50	50	100	03
3	EE110	Elements of Electrical and Electronics Engg		4	0	0	4	4	50	50	100	03
4	CS110	Problem solving using C	CSE	3	2	0	5	4	50	50	100	03
5	ME120	Engineering Graphics and Design	Mechanical	3	0	0	3	3	50	50	100	03
6	CH12L	Engineering Chemistry Lab	Chemistry	0	0	3	1.5	1.5	50	50	100	--
7	CS12L	Programming Laboratory	CSE	0	0	2	1	1	50	50	100	--
							Total Credits	21.5	Total Marks		700	

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Semester: II

Sl. No	Subject Code	Course Title	Teaching Department	Contact Hours				Credits	Marks			Exam Duration in Hours
				L	T	P	TOTAL		CIE	SEE	Total	
1	MA210	Engg. Mathematics – II (Multivariable Calculus)	Mathametics	4	0	0	4	4	50	50	100	03
2	PH210	Engg. Physics	Physics	4	0	0	4	4	50	50	100	03
3	CV210	Engineering Mechanics	Mechanical	4	0	0	4	4	50	50	100	03
4	ME210	Elements of Mechanical Engineering	Mechanical	4	0	0	4	4	50	50	100	03
5	PH22L	Engineering Physics Laboratory	Physics	0	0	3	3	1.5	50	--	50	--
6	HU210	Functional English	Humanities	2	0	0	2	2	25	25	50	1.5
7	HU220	Kannada		2	0	0	2		--	--	--	--
							Total Credits	19.5	Total Marks		500	

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SEMESTER: III

Sl. No	Subject Code	Course Title	Teaching Department	Contact Hours				Credits	Marks			Exam Duration in Hours
				L	T	P	TOTAL		CIE	SEE	Total	
1	HU320	Environmental Studies	Env	2	0	0	2	0	25	--	25	--
2	MA310	Fourier series, integral transforms and applications	Mathematics	4	0	0	4	4	50	50	100	03
3	CS310	Digital System Design	CSE	3	0	0	3	3	50	50	100	03
4	CS320	Theory of Computation	CSE	4	0	0	4	4	50	50	100	03
5	CS330	Discrete Mathematical structures & Combinatorics	CSE	3	0	0	3	3	50	50	100	03
6	CS340	Data Structures	CSE	4	0	0	4	4	50	50	100	03
7	CS350	Object Oriented Programming using JAVA	CSE	3	0	2	5	4	50	50	100	03
8	CS36L	Data Structure Lab	CSE	0	0	3	3	1.5	50	--	50	--
9	CS37L	Digital System Design Lab	CSE	0	0	3	3	1.5	50	--	50	--
							Total Credits	25	Total Marks		725	

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Semester: IV

Sl. No	Subject Code	Course Title	Teaching Department	Contact Hours				Credits	Marks			Exam Duration in Hours
				L	T	P	TOTAL		CIE	SEE	Total	
1	HU410	Constitution of India and Professional Ethics	HUM	2	0	0	2	0	25	--	25	--
2	MA410	Probability, Random variable and Stochastic Process	Mathematics	4	0	0	4	4	50	50	100	03
3	CS410	Computer Organization and Architecture	CSE	4	0	0	4	4	50	50	100	03
4	CS420	Compiler Design	CSE	4	0	0	4	4	50	50	100	03
5	CS430	Data Communication	CSE	3	0	0	3	3	50	50	100	03
6	CS440	Design and Analysis of Algorithms	CSE	4	0	0	4	4	50	50	100	03
7	CS450	Operating Systems	CSE	4	0	0	4	4	50	50	100	03
8	CS46L	Design and Analysis of Algorithms Lab	CSE	0	0	3	3	1.5	50	--	50	--
9	CS47L	System Programming Lab	CSE	0	0	3	3	1.5	50	--	50	--
				Total Credits				26	Total Marks		725	

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SEMESTER: V

Sl. No.	Subject Code	Course Title	Teaching Department	Contact Hours				Credits	Marks			Exam Duration in Hours	
				L	T	P	TOTAL		CIE	SEE	Total		
1	CS510	Linear Algebra	CSE	3	2	0	5	4	50	50	100	03	
2	CS520	Software Engineering	CSE	4	0	0	4	4	50	50	100	03	
3	CS530	Database Systems	CSE	4	0	0	4	4	50	50	100	03	
4	CS540	Computer Network	CSE	4	0	0	4	4	50	50	100	03	
5	CS55X	Elective –I	CSE	3	0	2	5	4	50	50	100	03	
6	CS56X	Elective –II	CSE	3	0	0	3	3	50	50	100	03	
7	CS57L	Database Laboratory	CSE	0	0	3	3	1.5	50	--	50	--	
8	CS58L	Network Laboratory	CSE	0	0	3	3	1.5	50	--	50	--	
		Total						Total Credits	26	Total Marks		700	

Sl. No.	Code	Elective-I (4 Credit)
1	CS551	Microprocessors and Microcontrollers
2	CS552	Image processing
3	CS553	Advanced Data Structures and algorithms
4	CS554	Web Technologies
5	CS555	Advanced JAVA

Sl. No.	Code	Elective-II (3 credits)
1	CS561	Innovation, IP management and entrepreneurship
2	CS562	Block Chain Technology
3	CS563	Design of Unix Operating System
4	CS564	Optimization Technique
5	CS565	Principles of programming Languages

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SEMESTER: VI

Sl. No	Subject Code	Course Title	Teaching Department	Contact Hours				Credits	Marks			Exam Duration in Hours	
				L	T	P	TOTAL		CIE	SEE	Total		
1	CS610	AI and Machine Learning	CSE	4	0	0	4	4	50	50	100	03	
2	CS620	Big data analytics	CSE	3	0	0	3	3	50	50	100	03	
3	CS630	Internet of Things	CSE	4	0	0	4	4	50	50	100	03	
4	CS640	Computer Systems Security	CSE	3	0	0	3	3	50	50	100	03	
5	CS65X	Elective-III	CSE	4	0	0	4	4	50	50	100	03	
6	CS66X	Elective-IV	CSE	2	0	0	2	2	25	25	50	1.5	
7	CS67L	IoT Laboratory	CSE	0	0	3	3	1.5	50	--	50	--	
8	CS68L	Machine Learning Laboratory	CSE	0	0	3	3	1.5	50	--	50	--	
		Total						Total Credits	23	Total Marks		650	

Sl. No	Code	Elective-III (4 Credits)
1	CS651	Wireless communication
2	CS652	Natural Language Processing
3	CS653	Embedded Systems
4	CS654	Cloud Computing
5	CS655	System Simulation and Modeling

Sl. No	Code	Elective-IV (2 Credits)
1	CS661	Social media Analytics and Data Driven Innovation
2	CS662	Ethical Hacking
3	CS663	Industry 4.0
4	CS664	Bioinformatics and computational Genomics
5	CS665	Forensics and Cyber Law

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SEMESTER: VII

Sl. No	Subject Code	Course Title	Teaching Department	Contact Hours				Credits	Marks			Exam Duration in Hours
				L	T	P	TOTAL		CIE	SEE	Total	
1	CS710	Software Project Management	CSE	4	0	0	4	4	50	50	100	03
2	CS720	Advanced Computer Architecture	CSE	4	0	0	4	4	50	50	100	03
3	CS73X	Elective-V	CSE	4	0	0	4	4	50	50	100	03
4	CS74X	Elective-VI	CSE	4	0	0	4	4	50	50	100	03
5	CS75P	Project Work Phase - I	CSE	-	-	-	--	2	50	--	50	--
				Total Credits				18	Total Marks		450	

Sl. No	Code	Elective-V (4 Credits)
1	CS731	Linux Device Driver
2	CS732	Adhoc Networks
3	CS733	Advanced Cryptography
4	CS734	Advances in AI
5	CS735	Distributed Computing Systems

Sl. No	Code	Elective-VI (4 Credits)
1	CS741	Wireless Sensor Networks
2	CS742	Speech Processing
3	CS743	Robotics
4	CS744	High Performance Computing
5	CS745	Pattern Recognition

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SEMESTER: VIII

Sl. No	Subject Code	Course Title	Teaching Department	Contact Hours				Credits	Marks			Exam Duration in Hours
				L	T	P	TOTAL		CIE	SEE	Total	
1	HU810Y	Foreign language	Humanities	2	0	0	2	2	25	25	50	1.5
2	CS81X	Elective-VIII	CSE	3	0	0	3	3	50	50	100	03
3	CS82X	Elective-IX	CSE	3	0	0	3	3	50	50	100	03
4	CS83P	Project Work Phase - II	CSE	-	-	-	--	8	70	30	100	03
Total				Total Credits				16	Total Marks		350	

Sl. No	Code	Elective- Foreign Language (2 Credits)
1	HU810F	French Language
2	HU810G	German Language
3	HU810J	Japanese Language

Sl. No	Code	Elective-VIII (3 Credits)
1	CS811	Data Warehouse and Data Mining
2	CS812	Deep Learning Architecture
3	CS813	Network Management
4	CS814	Green Computing
5	CS815	Mobile Application Development

Sl. No	Code	Elective-IX (3 Credits)
1	CS821	Enterprise Resource Planning
2	CS822	Software Modeling
3	CS823	Multimedia Computing
4	CS824	Cyber Security
5	CS825	Software Quality and Assurance