



AUTONOMOUS SCHEME (Tentative) UG - BE 2nd Year
Department of Computer Science and Engineering

SCHEME: 2023
SEM: III

Aca. Year.: 2024-25


Date: 18/12/2023


SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				
								L	T	P	S	CIE Marks	SEE			Tot. Marks
								Lecture	Tutorial	Practical	PBL/ABL / SL/others.		Dur.	Tb. Mrks	Lab. Mrks	
1	IBSC	3	23MAI301	Discrete Mathematics, Combinatorics and Graph Theory (M III)	Maths /CSE	Maths /CSE	4	3	0	2		50	03	50	-	100
2	PCC	1	23CST302	Computer Organization and Architecture	CSE	CSE	3	2	2	0		50	03	50	-	100
3	IPCC	1	23CSI303	Data Structures and Algorithms Using C	CSE	CSE	4	3	0	2		50	03	50	-	100
4	IPCC	2	23CSI304	Principles of Digital Design	CSE	CSE	4	2	2	2		50	03	50	-	100
5	PCCL	1	23CSL305	Web Programming	CSE	CSE	1	0	0	2		50	03	-	50	100
6	ETC	1	23CSE31y	Emerging Technology Course - 1	CSE	CSE	3	2	0	2		50	03	50	-	100
7	AEC	3	23CSAE31	Skill development Course - 3	I.E.	I.E.	1	1	0	0	3	50	02	50	-	100
8	NMC	3	23PDSN03	Personality Development-3 (HRD Training)	I.E.	I.E.	PP/NP	0	0	0	2	50	-	-	-	50
Total							20	13	4	10	5	400		300	50	750


BSC: Basic Science Course; PCC: Professional Course; IPCC: Integrated Professional Core Course; PCCL: Professional Core Course Laboratory; ETC: Emerging Technology Course; AEC: Ability Enhancement Course; NMC: Non Credit Mandatory Course (I.E.-Industry Experts)

Note: For the fulfillment of successful completion of degree, lateral entry students, shall study & complete additional courses of Additional mathematics, Language Courses, Environmental studies, Constitution of India & professional Ethics as per the guidelines released time to time.

Emerging Technology Course - 1	
Course Code	Course Title
23CSE311	OOPs with C++ and Java
23CSE312	R Programming
23CSE313	Power BI
23CSE314	Ruby


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AUTONOMOUS SCHEME (Tentative) UG - BE 2nd Year
Department of Computer Science and Engineering

SCHEME: 2023

Aca. Year.: 2024-25

Date: 18/12/2023

SEM: IV

Sl No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				
								L	T	P	S	CIE Marks	SEE			Tot. Marks
								Lecture	Tutorial	Practical	PBL/ABL/SL/others.		Dur.	Th. Mrks	Lab. Mrks.	
1	IBSC	4	23MAI401	Numerical Methods and Probability Theory	Maths	Maths	3	2	0	2		50	03	50	-	100
2	PCC	2	23CST402	Operating Systems	CSE	CSE	3	3	0	0		50	03	50	-	100
3	IPCC	3	23CSI403	Database Management Systems	CSE	CSE	4	3	0	2		50	03	50	-	100
4	IPCC	4	23CSI404	Microcontroller and Embedded Systems	CSE	CSE	4	3	0	2		50	03	50	-	100
5	PCCL	2	23CSL405	UI/UX Technology	CSE	CSE	1	0	0	2		50	03	-	50	100
6	ETC	2	23CSE42y	Emerging Technology Course - 2	CSE	CSE	3	3	0	0		50	03	50	-	100
7	HSMC	5	23SFHH06/ 23UHVH07	SFH or UHV	any dept	any dept	1	0	2	0		50	02	50	-	100
8	AEC	4	23CSAE41	Skill Development Course - 4	I.E.	I.E.	1	1	0	0	3	50	02	50	-	100
9	NCMC	1	23PASN01	Phy. Education (Sports & Phy. Activities)	PED	PED	PP/NP	-	-	-	2	50	-	-	-	50
			23YOGN02	Yoga	PED	PED										
			23NSSN03	NSS	NSS	NSS										
			23NCCN04	NCC	NCC	NCC										
			23IKSN05	Indian Knowledge System	HSS	HSS										
10	NCMC	5	23PDSN04	Personality Development-4 (HRD Training)	I.E.	I.E.	PP/NP	0	0	0	2	50	-	-	-	50
Total							20	15	2	8	7	500		350	50	900

BSC: Basic Science Course; PCC: Professional Course; IPCC: Integrated Professional Core Course; PCCL: Professional Core Course Laboratory; ETC: Engineering Technology Course; AEC: Ability Enhancement Course; HSMC: Humanities, Social Sciences & Management Course; NCMC: Non Credit Mandatory Course; {@ - Compulsory one activity during the semester} {\$ - Activity based (2 Hrs/week)} {I.E.-Industry Experts}

Emerging Technology Course - 2	
Course Code	Course Title
23CSE421	Exploratory Data analytics with Python
23CSE422	C # & .NET
23CSE423	Advance JAVA
23CSE424	Adv. Data Structure & Algorithms

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AUTONOMOUS SCHEME (Tentative) UG - BE 3rd Year Department of Computer Science and Engineering

SCHEME: 2023
SEM: V

Aca. Year.: 2025-26

Date: 18/12/2023

SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				
								L Lecture	T Tutorial	P Practical	S PBL/ABL / SL/other.	CIE Marks	SEE			Tot. Marks
													Dur.	Th. Mrks	Lab. Mrks	
1	PCC	3	23CST501	Theory of Computation	CSE	CSE	3	3	0	0		50	03	50	-	100
2	IPCC	5	23CSI502	Artificial Intelligent and Machine Learning	CSE	CSE	4	3	0	2		50	03	50	-	100
3	IPCC	6	23CSI503	Computer Networks	CSE	CSE	4	3	0	2		50	03	50	-	100
4	PCCL	3	23CSL504	Mobile Application Development	CSE	CSE	1	0	0	2		50	03	-	50	100
5	PEC	1	23CSP51y	Professional Elective Course - 1	CSE	CSE	3	3	0	0		50	03	50	-	100
6	ETC	3	23CSE53y	Emerging Technology Course - 3	CSE	CSE	3	3	0	0		50	03	50	-	100
7	HSMC	6	23SFHH06/ 23UHVH07	SFH or UHV	any dept	any dept	1	0	2	0	@	50	02	50	-	100
8	AEC	5	23CSAE51	Skill Development Course - 5	I.E.	I.E.	1	1	0	0	3	50	02	50	-	100
9	NCMC	2	23PASN01	Phy. Education (Sports & Phy. Activities)	PED	PED	NP/PP	-	-	-	2	50	-	-	-	50
			23YOGN02	Yoga	PED	PED										
			23NSSN03	NSS	NSS	NSS										
			23NCCN04	NCC	NCC	NCC										
			23IKSN05	Inidan Knowledge System	HSS	HSS										
10	NCMC	6	23PDSN04	Personality Development-5 (HRD Training)	I.E.	I.E.	PP/NP	0	0	0	2	50	-	-	-	50
Total							20	16	2	6	7	500		350	50	900

PCC: Professional Course; IPCC: Integrated Professional Core Course; PCCL: Professional Core Course Laboratory; ETC: Engineering Technology Course; AEC: Ability Enhancement Course; HSMC: Humanities, Social Sciences & Management Course; NCMC: Non Credit Mandatory Course; {@ - Compulsory one activity during the semester}; {\$ - Activity based (2 Hrs/week)}; {I.E. - Industry Experts}

Professional Elective Course - 1		Emerging Technology Course - 3	
Course Code	Course Title	Course Code	Course Title
23CSP511	Discrete Probability theory, Statistical Methods and	23CSE531	Unix System Programming
23CSP512	Blockchain Technology	23CSE532	Full stack Development
23CSP513	Mobile Computing	23CSE533	Project Management with Git
23CSP514	Multi Core Architecture	23CSE534	Kotlin

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AUTONOMOUS SCHEME (Tentative) UG - BE 3rd Year
Department of Computer Science and Engineering
 Aca. Year.: 2025-26

SCHEME: 2023
SEM: VI

Date: 18/12/2023

SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				
								L	T	P	S	CIE Marks	SEE			Tot. Marks
								Lecture	Tutorial	Practical	PBL/ABL /SL/others.		Dur.	Th. Mrks	Lab. Mrks	
1	PCC	4	23CST601	Software Engineering & Testing	CSE	CSE	3	3	0	0		50	03	50	-	100
2	IPCC	7	23CSI602	Computer Graphics & Image processing	CSE	CSE	4	3	0	2		50	03	50	-	100
3	PCCL	4	23CSL603	Cyber Security Lab	CSE	CSE	1	0	0	2		50	03	-	50	100
4	PEC	2	23CSP62y	Professional Elective Course - 2	CSE	CSE	3	3	0	0		50	03	50	-	100
5	OEC	1	23CSO61y	Open Elective Course - 1	CSE	CSE	3	3	0	0		50	03	50	-	100
6	ETC	4	23CSE64y	Emerging Technology Course - 4	CSE	CSE	3	2	0	2		50	03	50	-	100
7	AEC	6	23CSAE61	Innovation & Design Thinking	CSE	CSE	1	0	2	0	@	50	02	50	-	100
8	PRJ	1	23CSPRJ1	Mini Project	CSE	CSE	2	0	0	4	@	50	03	-	50	100
9	AEC	7	23CSAE62	Skill Development Course - 6	I.E.	I.E.	1	1	0	0	3	50	02	50	-	100
10	NMC	7	23PDSN04	Personality Development-5 (HRD Training)	I.E.	I.E.	PP/NP	0	0	0	2	50	-	-	-	50
Total							21	15	2	10	5	500	350	100	950	

PCC: Professional Course; IPCC: Integrated Professional Core Course; PCCL: Professional Core Course Laboratory; PEC: Professional Elective Course; OEC: Open Elective Course; ETC: Engineering Technology Course; HSMC: Humanities, Social Sciences & Management Course; AEC: Ability Enhancement Course; {@ - Compulsory one activity during the semester}; {I.E.-Industry Experts} {Open Electives listed here are for other department students, students shall select from separate list published}

Professional Elective Course - 2		Open Elective Course - 1		Emerging Technology Course - 4	
Course Code	Course Title	Course Code	Course Title	Course Code	Course Title
23CSP621	Cryptography	23CSO611	Introduction to Data Structures	23CSE641	Devops
23CSP622	System Software and Compiler Design	23CSO612	OOPS with C++	23CSE642	Quantum Computation and Quantum Information
23CSP623	Financial and Cost Accounting	23CSO613	Mobile Application Development	23CSE643	Deep Learning
23CSP624	Human Computer Interaction	23CSO614	Introduction to AI	23CSE644	Large Scale Data Processing

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AUTONOMOUS SCHEME (Tentative) UG - BE 4th Year
Department of Computer Science and Engineering

SCHEME: 2023
SEM: VII

Aca. Year.: 2026-27

Date: 18/12/2023

Sl. No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				
								L	T	P	S	CIE Marks	SEE			Tot. Marks
								Lecture	Tutorial	Practical	PBL/ABL / SL/others.		Dur.	Th. Mrks	Lab. Mrks	
1	PCC	5	23CST701	Big Data Analytics	CSE	CSE	3	3	0	0		50	03	50	-	100
2	IPCC	8	23CSI702	Cloud Computing	CSE	CSE	4	3	0	2		50	03	50	-	100
3	IPCC	9	23CSI703	Internet of Things	CSE	CSE	4	3	0	2		50	03	50	-	100
4	PEC	3	23CSP73y	Professional Elective Course - 3	CSE	CSE	3	3	0	0		50	03	50	-	100
5	OEC	2	23CSO72y	Open Elective Course - 2	any dept.	any dept.	3	3	0	0		50	03	50	-	100
6	HSMC	7	23CST704	Management and Entrepreneurship	CSE	CSE	2	2	0	0		50	03	50	-	100
7	PRJ	2	23CSPRJ2	Major Project - Phase I	CSE	CSE	2	0	0	2	@	50	03	-	50	100
Total							21	17	0	6		350		300	50	700


PCC: Professional Core Course; IPCC: Integrated Professional Core Course; PEC: Professional Elective Course; OEC: Open Elective Course; PRJ-P1W: Major Project Phase Wise. {Open Electives listed here are for other department students, stdnts shall select from separate list published}

Professional Elective Course - 3		Open Elective Course - 2	
Course Code	Course Title	Course Code	Course Title
23CSP731	Computer Vision	23CSO721	Fundamentals of DBMS
23CSP732	Agile Technologies	23CSO722	Fundamentals of Algorithms
23CSP733	Robotics Process Automation	23CSO723	Introduction to cyber security
23CSP734	Natural Language Processing	23CSO724	Data Analytics with python


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AUTONOMOUS SCHEME (Tentative) UG - BE 4th Year
Department of Computer Science and Engineering

SCHEME: 2023
SEM: VIII

Aca. Year.: 2026-27

Date: 18/12/2023

SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				CIE Marks	Examinations			
								L	T	P	S		SEE			Tot. Marks
								Lecture	Tutorial	Practical	PBI/ABL / SL/others.		Dur.	Tb. Mrks	Lab. Mrks	
1	SLC	1	23CSSL1y	Self-Learning Course - 1 (NPTEL)			3	0	0	0	@	50	-	50	-	100
2	SLC	2	23CSSL2y	Self-Learning Course - 2 (NPTEL)			3	0	0	0	@	50	-	50	-	100
3	PRJ	3	23CSPRJ3	Major Project - Phase II			8				@	100	-	-	100	200
4	INT	1	23CSINT1	Industrial Internship			4				@	50	-	-	50	100
Total							18	0	0	0	0	250		100	150	500

SLC: Self Learning Course, Prj-PW: Project Phase Wise, INT: Internship; After 7th SEM exams, full time for Internship & Project equally divided; SLC courses to be started from 3rd SEM and to be completed by 7th SEM and evaluated and credited in 8th SEM.

Self-Learning course - 1 (NPTEL)			Self-Learning course - 2 (NPTEL)		
Course Code	Course Title	NPTEL Code	Course Code	Course Title	NPTEL
23CSSL11	Getting Started with Competitive Programming	noc23-cs30	23CSSL21	Introduction To Industry 4.0 And Industrial Internet Of Things	noc23-cs52
23CSSL12	Object Oriented System Development Using UML, Java And	noc23-cs46	23CSSL22	Foundations of Cyber Physical Systems	noc23-cs62
23CSSL13	Social Networks	noc23-cs19	23CSSL23	Blockchain and its Applications	noc23-cs47
23CSSL14	Fuzzy Sets, Logic and Systems & Application	noc23-cs60	23CSSL24	Hardware Security	noc23-cs59
23CSSL15	Reinforcement Learning	noc23-cs23	23CSSL25	GPU Architectures And	noc23-cs61
23CSSL16	Secure Computation: Part I	noc23-cs34	23CSSL26	Privacy and Security in Online	noc23-cs13
23CSSL17	Affective Computing	noc23-cs36	23CSSL27	Quantum Algorithms and	noc23-cs04
23CSSL18	Introduction To Soft Computing	noc23-cs40	23CSSL28	Ethical Hacking	noc23-cs44
23CSSL19	Natural Language Processing	noc23-cs45	23CSSL29	Model Checking	noc23-cs12
23CSSL20	Advanced Graph Theory	noc23-cs26	23CSSL30	Introduction to parallel programming with OpenMP and MPI	noc23-cs28
23CSSL21	AI:Constraint Satisfaction	noc23-cs14	23CSSL31	Foundation of Cloud IoT Edge ML	noc23-cs65

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