

SCHEME OF EXAMINATION 2022-23
SCHEME OF EXAMINATION FOR STUDENT ADMITTED IN 2018 – 19 IN FIRST YEAR
B.TECH. I YEAR COMPUTER SCIENCE & ENGINEERING

I YEAR B.Tech. (4YDC)

Common To All Branches

Semester - A

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
				L	T	P	Th	Pr	Theory		Practical		Total
									Th.	CW	SW	Pr.	
1	BSC	MA 10001	Mathematics - I	3	1	0	4	0	70	30	0	0	100
2	BSC	PH10016	Physics	2	1	-	3	-	70	30	-	-	100
3	ESC	EE10015	Fundamentals of Electrical Engineering	2	1	-	3	0	70	30	0	0	100
4	ESC	CE10013	Fundamentals of Civil Engineering & Applied Mechanics	2	1	-	3	0	70	30	0	0	100
5	ESC	ME10049	Engineering Graphics	2	-	-	2	-	70	30	-	-	100
6	BSC (LC)	PH10151	Applied Physics Lab	-	-	2	-	1	-	-	20	30	50
7	ESC (LC)	EE10152	Electrical Engineering Lab	-	-	2	-	1	-	-	20	30	50
8	ESC (LC)	ME10153	Engineering Drawing/AutoCAD Lab	-	-	4	-	2	-	-	40	60	100
9	HSMC	HU10191	Extra /Co curricular Activity	-	-	2	-	1	-	-	50	0	50
10	MC		Induction program & Universal Human Values	2-3 weeks in the beginning of 1 Year & 1 hour per week during semester									
TOTAL				11	4	10	15	5	350	150	130	120	750

Semester - B

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
				L	T	P	Th	Pr	Theory		Practical		Total
									Th.	CW	SW	Pr.	
1	BSC	MA 10501	Mathematics – II	3	1	-	4	-	70	30	0	0	100
2	BSC	CH10516	Chemistry	3	-	-	3	-	70	30	-	-	100
3	HSMC	HU10551	Technical English	2	-	-	2	-	70	30	0	0	100
4	ESC	CO10507	Programming for Problem Solving	2	1	-	3	-	70	30	0	0	100
5	ESC	EC10508	Basic Electronics Engineering	2	-	-	2	-	70	30	0	0	100
6	BSC (LC)	CH10652	Chemistry Lab	-	-	2	-	1	-	-	20	30	50
7	HSMC (LC)	HU10653	Language Lab	-	-	2	-	1	-	-	20	30	50
8	ESC (LC)	CO10654	Computer Programming Lab	-	-	2	-	1	-	-	20	30	50
9	ESC (LC)	IP10655	Manufacturing Practices	-	-	4	-	2	-	-	40	60	100
10	HSMC	HU10691	Extra /Co curricular Activity	-	-	2	-	1	-	-	50	-	50
11	MC		Induction program & Universal Human Values	2-3 weeks in the beginning of 1 Year & 1 hour per week during semester									
TOTAL				12	2	12	14	6	350	150	150	150	800

Engineering Certificate shall be awarded after acquiring additional 10 credits out of which 6 credits as 2 Months industrial training within five years


Dean (Academic)

Shri G. S. Instt. of Tech. & Science

B.TECH. II YEAR COMPUTER SCIENCE & ENGINEERING

SEMESTER 'A'

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits			Max. Marks				
				L	T	P	Th.	Pr.	Total	Theory		Practical		Total
										Th.	CW	SW	Pr.	
1.	BSC	MA24003	Mathematics -III	3	1	-	4	-	4	70	30	-	-	100
2.	PCC	CO 24057	Object Oriented Programming Systems	3	1	2	4	1	5	70	30	40	60	200
3.	PCC	CO 24009	Computer Architecture	3	-	2	3	1	4	70	30	40	60	200
4.	ESC	EC 24010	Analog and Digital Electronics	3	-	2	3	1	4	70	30	40	60	200
5.	HSMC	HU 24005	Economics for Engineers	3	-	-	3	-	3	70	30	-	-	100
6.	LC	CO 24497	Programming Practices	-	1	2	-	2	2	-	-	40	60	100
7.	ESC/ LC	EC 24498	Electronics Workshop	-	-	2	-	1	1	-	-	40	60	100
Total				15	3	10	17	6	23	350	150	200	300	1000

SEMESTER 'B'

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits			Max. Marks				
				L	T	P	Th.	Pr.	Total	Theory		Practical		Total
										Th.	CW	SW	Pr.	
1.	PCC	CO 24553	Discrete Structures	3	-	-	3	-	3	70	30	-	-	100
2.	BSC	MA 24554	Mathematics - IV	3	1	-	4	-	4	70	30	-	-	100
3.	PCC	CO 24507	Data Structures	3	1	2	4	1	5	70	30	40	60	200
4.	PCC	CO 24508	Operating Systems	3	-	2	3	1	4	70	30	40	60	200
5.	OEC	EC 24509	Digital Communication	3	-	2	3	1	4	70	30	40	60	200
6.	LC	CO 24992	Computer Workshop	-	-	2	-	1	1	-	-	40	60	100
7.	LC	CO 24991	Design thinking Lab-I	-	-	2	-	1	1	-	-	40	60	100
8.	HSBC	HU 24881	Values, Humanities and Professional Ethics	-	2	-	2	-	2	-	100	-	-	100
9.	MC	HU_____	Constitution of India(Audit)	-	2	-	-	-	-	-	50	-	-	-
Total				15	6	10	19	5	24	350	300	200	300	1150

B.TECH. III YEAR COMPUTER SCIENCE & ENGINEERING

SEMESTER 'A'

S. No.	Category	Subject Code	Subject Nomenclature	Hours Per Week			No. of Credits			Maximum Marks				
				L	T	P	Th.	Pr.	Total	Th.	CW	SW	Pr.	Total
1.	PCC	CO 34002	*Theory of Computation	3	1	-	4	-	4	70	30	-	-	100
2.	PCC	CO 34005	*Data Base Management Systems	3	1	2	4	1	5	70	30	40	60	200
3.	PCC	CO 34007	*Computer Networks	3	1	2	4	1	5	70	30	40	60	200
4.	PCC	CO 34014	Agile Software Methodology	3	-	2	3	1	4	70	30	40	60	200
5.	LC	CO 34451	Skill Development Lab	-	-	2	-	1	1	-	-	20	30	50
6.	LC	CO 34452	Design Thinking Lab-II	-	-	2	-	1	1	-	-	20	30	50
7.	SI	CO 34481	Evaluation of Industrial Training/Internship-I	-	-	-	-	2	2	-	-	100	-	100
8.	OEC	CO ____	Open Elective Course-I	3	1	-	4	-	4	70	30	-	-	100
9.	MC	HU ____	Essence of Indian Traditional Knowledge(Audit)	-	2	-	-	-	-	-	-	-	-	-
			Total	15	6	10	19	7	26	350	150	260	240	1000

SEMESTER 'B'

S. No.	Category	Subject Code	Subject Nomenclature	Hours Per Week			No. of Credits			Maximum Marks				
				L	T	P	Th.	Pr.	Total	Th.	CW	SW	Pr.	Total
1.	PCC	CO 34553	Machine Learning	3	-	2	3	1	4	70	30	40	60	200
2.	PCC	CO 34554	Foundation of Information Security	3	-	-	3	-	3	70	30	-	-	100
3.	PCC	CO 34563	* Design and Analysis of Algorithms	3	-	2	3	1	4	70	30	40	60	200
4.	PCC	CO 34881	Internet of Things	-	1	2	-	2	2	-	-	40	60	100
5.	PEC	CO ____	Elective-I	3	-	2	3	1	4	70	30	40	60	200
6.	PROJ	CO 34999	Major Project Planning and Seminar	-	-	4	-	2	2	-	-	40	60	100
7.	OEC	CO ____	Open Elective Course-II	2	1	2	3	1	4	70	30	40	60	200
			Total	14	2	14	15	8	23	350	150	240	360	1100

Internship / training in industry or organization of minimum 2 weeks to be carried out after sem. "A" or Sem. "B" but before commencement of IV Year Sem. "A". Evaluation shall be done in IV Year Sem. "A".

* Common Question paper can be set for these subjects, for IIIyr. BE students (ex-students) & IIIyr. B.Tech. students.

All Elective subjects may be offered in offline mode/ MooCs mode.

List of Open Elective Course-I Subjects

- CO34298 Artificial Intelligence
- MB34297 Organization Behavior and Human Resource Management

List of Open Elective Course-II Subjects

- CO34701 Android Application Development
- CO ____ Open Source Technologies

B.TECH. IV YEAR COMPUTER SCIENCE & ENGINEERING (wef. 2021-22)

SEMESTER 'A'

S. No.	Category	Code No.	Subject Nomenclature	Hours Per Week			No. of Credits		Total	Maximum Marks				Total
				L	T	P	L	P		Th.	CW	SW	Pr.	
1.	PEC		Elective – II	3	-	2	3	1	4	70	30	40	60	200
2.	PEC		Elective – III	3	-	2	3	1	4	70	30	40	60	200
3.	PEC		Elective – IV	3	-	2	3	1	4	70	30	40	60	200
4.	LC	CO44401	System Operations Lab	-	-	2	-	1	1	-	-	40	60	100
5.	PROJ	CO44498/ CO 44998	Major Project Phase-I/ Major Project Phase-II	-	-	4	-	2	2	-	-	80	120	200
6.	SI	CO44481	Internship Evaluation - II	-	-	-	-	2	2	-	-	100	-	100
Total				9	-	12	9	8	17	210	90	340	360	1000

SEMESTER 'B'

S. No.	Category	Code No.	Subject Nomenclature	Hours Per Week			No. of Credits		Total	Maximum Marks				Total
				L	T	P	L	P		Th.	CW	SW	Pr.	
1.	PEC		Elective – V	2	-	-	2	-	2	70	30	-	-	100
2.	PEC		Elective – VI	2	-	-	2	-	2	70	30	-	-	100
4.	PROJ	CO44998/ CO 44498	Major Project Phase - II / Major Project Phase – I	-	-	4	-	2	2	-	-	80	120	200
3.	SI	CO44882	Internship Evaluation - III	-	-	-	-	4	4	-	-	100	-	100
Total				4	-	4	4	6	10	140	60	180	120	500

* Common question paper can be set for these subjects, for students under this scheme and under the B.E. scheme of IV yr. B.E.

All Elective subjects may be offered in offline mode/ MooCs mode.

List of Electives

Elective-I

1. CO 34601 Data Science & Engineering
2. CO _____ Compiler Construction
3. CO _____ Wireless & Mobile Networks
4. CO 34602 Object Oriented Software Engineering
5. CO _____ Computer Graphics
6. CO _____ Embedded Systems

Elective-III

1. CO 44251 Deep Learning
2. CO _____ Advanced Algorithms
3. CO 44252 Big Data
4. CO _____ Human Computer Interaction
5. CO _____ Real Time Systems
6. CO _____ Software Verification

Elective-V

1. CO _____ Bioinformatics Computing
2. CO _____ High Performance Computing
3. CO _____ Machine Learning for Security
4. CO 44608 Game Design
5. CO _____ Digital Signal Processing
6. CO _____ Security in Resource Constrained Environment

Elective-II

1. CO _____ Computational Intelligence
2. CO _____ Advanced Data Structures
3. CO 44242 Cloud Computing
4. CO _____ Software Architecture
5. CO _____ Multimedia System
6. CO _____ VLSI System Design

Elective-IV

1. CO _____ Reinforcement Learning
2. CO _____ Advanced Databases
3. CO 44307 Cyber Security and Forensics
4. CO 44308 Web Technologies
5. CO _____ Virtual Reality
6. CO _____ Robotics

Elective-VI

1. CO _____ Natural Language Processing
2. CO _____ Advanced Operating Systems
3. CO _____ Network Management & Maintenance
4. CO 44706 Software Project Management
5. CO _____ Image Processing and Computer Vision
6. CO 44707 Block Chain Technology