


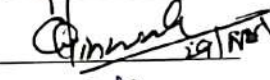

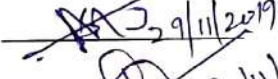
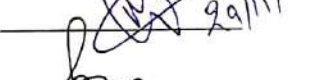

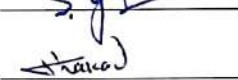

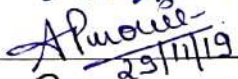



Minutes of Meeting of the Board of Studies in Computer Engineering
Held on 29th November 2019

A meeting of the Board of Studies in Computer Engineering was held on 29th November 2019 (Friday) at 11:00 am in conference room of Department of Computer Engineering. Following members attended the meeting:

1. Dr. Urjita Thakar	Chairman
2. Dr. D. C. Jinwala	External Expert
3. Dr. V. R. Sathe	External Expert
4. Dr. Vahida Zakirhusen Attar	(External Expert Special Invitee)
5. Mr. Pradeep Raghuwanshi	(—" —)
6. Prof. D. A. Mehta	(Member)
7. Mr. S. Gupta	(—" —)
8. Mr. R. Dhakad	(—" —)
9. Dr. Vandan Tewari	(—" —)
10. Dr. Anuradha Purohit	(—" —)
11. Ms. Priyanka Bamne	Special Invitee
12. Ms. Jyoti Gautam Tiwari	(—" —)

Discussion was held to frame scheme of B.Tech CSE as per the AICTE curriculum. Detailed deliberations are enclosed.

Signatures of Members:

1. Dr. Urjita Thakar	Chairman	
2. Dr. D. C. Jinwala	External Expert	
3. Dr. V. R. Sathe	External Expert	
4. Dr. Vahida Zakirhusen Attar	(External Expert Special Invitee)	
5. Mr. Pradeep Raghuwanshi	(—" —)	
6. Prof. D. A. Mehta	(Member)	
7. Mr. S. Gupta	(—" —)	
8. Mr. R. Dhakad	(—" —)	
9. Dr. Vandan Tewari	(—" —)	
10. Dr. Anuradha Purohit	(—" —)	
11. Ms. Priyanka Bamne	Special Invitee	
12. Ms. Jyoti Gautam Tiwari	(—" —)	

Department of Computer Engineering

BoS Meeting held on 29-11-2019

1. In view of AICTE model curriculum, the scheme and syllabi of B. Tech. Computer Science & Engineering was reviewed and the recommendations are as given below:

1. II Year

The scheme for B.Tech. Computer Science & Engineering for students admitted in I Year in year 2018-19 was already approved in Academic Council in meeting held in June 2019. (Copy enclosed). However, as per the discussions held, following changes were felt necessary in order to accommodate few skill and software product design based courses and hence are recommended in sem. 'B'.

- i) The subject "Operating Systems" be shifted from III Year sem. 'B' to II Year sem. 'B' in place of subject "Software Engineering" (which is shifted to III Year sem. 'A').
- ii) A lab viz. "Design Thinking Lab-I" be added to II Year sem. 'B'.

These changes may be made effective for the students admitted in year 2018-19 in first year. The revised scheme and syllabi with these changes is enclosed.

2. III Year

The scheme and syllabi were discussed in light of AICTE model curriculum. The recommended scheme and syllabi are enclosed.

3. IV Year

The scheme and syllabi were discussed in light of AICTE model curriculum. The recommended scheme and syllabi are enclosed.

No other item was discussed and the meeting ended with a vote of thanks to the chair.

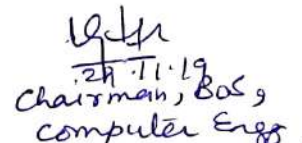

Chairman

BoS, Computer Engg.

It is requested that since classes of II year sem B of B.Tech Comp Sci Engg are going to commence shortly, the recommendation of items 1 may kindly be approved in anticipation of its approval by the Academic Council. The same may be ratified in the next meeting of Academic Council / standing committee. The remaining recommendations may be placed before the meeting of next Academic Council / standing committee for the approval.

To, Chairman (Academic Council) & Director
Approved as proposed


29.11.19


Chairman, BoS,
Computer Engg.

SCHEME OF EXAMINATION FOR STUDENT ADMITTED 2018 – 19 IN FIRST YEAR

I YEAR B.Tech. COMPUTER SCIENCE & ENGINEERING

SEMESTER 'A'

S No	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Max. Marks				
				L	T	P	Th.	Pr.	Theory		Practical		Total
									Th.	CW	SW	Pr.	
1.	BSC	MA10001	Mathematics – I	3	1	0	4	0	70	30	0	0	100
2.	BSC	PH10006	Physics	3	1	2	4	1	70	30	20	30	150
3.	ESC	CE10003	Fundamentals of Civil Engineering & Applied Mechanics	3	0	2	3	1	70	30	20	30	150
4.	ESC	ME10149	Engineering Graphics	2	0	4	2	2	70	30	40	60	200
5.	ESC	EE10005	Fundamentals of Electrical Engineering	3	0	2	3	1	70	30	20	30	150
6.	MC	CH10200*	Environmental Science	0	1	2	-	-	0	0	100	0	100
Total				14	3	12	16	5	350	150	200	150	850

SEMESTER 'B'

S No	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Max. Marks				
				L	T	P	Th.	Pr.	Theory		Practical		Total
									Th.	CW	SW	Pr.	
1.	BSC	MA10501	Mathematics- II	3	1	0	4	0	70	30	0	0	100
2.	BSC	CH10506	Chemistry	3	1	2	4	1	70	30	20	30	150
3.	HSMC	HU10651	Technical English	3	0	2	3	1	70	30	20	30	150
4.	ESC	CO10648	Programming for Problem Solving	3	0	2	3	1	70	30	20	30	150
5.	ESC	ME10649	Fundamentals of Mechanical Engineering	3	0	2	3	1	70	30	20	30	150
6.	ESC	IP10650	Manufacturing Practices & Workshop	0	1	4	1	2	0	0	40	60	100
7.	MC	HU10700*	Universal Human Values Groups	2 Hrs. per week working Saturday					0	0	100	0	100
Total				15	3	12	18	6	350	150	220	180	900

Mandatory Noncredit course PASS/FAIL status will appear in marksheet.

SCHEME OF EXAMINATION FOR STUDENT ADMITTED 2018 – 19 IN FIRST YEAR

II YEAR B.Tech. COMPUTER 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	Pr.	SW	Total
1.	BSC	MA 24003	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	60	40	200
3.	PCC	CO 24009	Computer Architecture	3	-	2	3	1	4	70	30	60	40	200
4.	ESC	EC 24010	Analog & Digital Electronics	3	-	2	3	1	4	70	30	60	40	200
5.	HSMC	HU 24005	Economics for Engineers	3	-	-	3	-	3	70	30	-	-	100
6.	LC	CO 24497	Programming Practices	-	1	2	1	1	2	-	-	60	40	100
7.	ESC/ LC	EC 24498	Electronics Workshop	-	-	2	-	1	1	-	-	60	40	100
Total				15	3	10	18	5	23	350	150	300	200	1000

OC open category

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	Pr.	SW	Total
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	60	40	200
4.	PCC	CO 24508	Operating Systems	3	-	2	3	1	4	70	30	60	40	200
5.	OEC	EC 24559 24509	Analog and Digital Communication	3	-	2	3	1	4	70	30	60	40	200
6.	LC	CO 24992	Computer Workshop	-	-	2	-	1	1	-	-	60	40	100
7.	LC	CO 24991	Design thinking Lab-I	-	-	2	-	1	1	-	-	60	40	100
8.	HSBC	HU 24595 24281	Values, Humanities and Professional Ethics	-	2	-	2	-	2	-	100	-	-	100
Total				15	4	10	19	5	24	350	250	300	200	1100

OC open category

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

*changes after -
Exam scheme checking*

II YEAR B.Tech. COMPUTER ENGINEERING

OLD

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	Pr.	SW	Total
1	BSC	MA 24003	Mathematics -III	3	-	-	4	-	3	70	30	-	-	100
2	PCC	CO _____	Object Oriented Programming Systems	3	1	2	4	1	5	70	30	60	40	200
3	PCC	CO 24009	Computer Architecture	3	-	2	3	1	4	70	30	60	40	200
4	ESC	EC 24010	Analog & Digital Electronics	3	-	2	3	1	4	70	30	60	40	200
5	HSMC	HU 24005	Economics for Engineers	3	-	-	3	-	3	70	30	-	-	100
6	LC	CO 24497	Programming Practices	-	1	2	1	1	2	-	-	60	40	100
7	ESC/LC	EC 24498	Electronics Workshop	-	-	2	-	1	1	-	-	60	40	100
Total				15	2	10	18	5	22	350	150	300	200	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	Pr.	SW	Total
1	PCC	CO 24553	Discrete Structures	3	-	-	3	-	3	70	30	-	-	100
2	BSC	MA 24554	Mathematics - IV	3	-	-	3	-	3	70	30	-	-	100
3	PCC	CO _____	Data Structures	3	1	2	4	1	5	70	30	60	40	200
4	PCC	CO 24558	Software Engineering	3	-	2	3	1	4	70	30	60	40	200
5	ESC	EC 24559	Analog and Digital Communication	3	-	2	3	1	4	70	30	60	40	200
6	LC	CO 24992	Computer Workshop	-	-	2	-	-	2	-	-	60	40	100
7	HSBC	HU 24505	Values, Humanities and Professional Ethics	-	2	-	2	-	2	-	-	-	100	100
Total				15	3	8	18	3	23	350	150	240	260	1000

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

III YEAR B.Tech. COMPUTER ENGINEERING

2021

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	Pr.	SW	Total
1	PCC	CO34002	Theory of Computation	3	1	-	4	-	4	70	30	-	-	100
2	PCC	CO34007	Computer Networks	3	-	2	3	1	4	70	30	60	40	200
3	PCC	CO34005	Data Base Management Systems	3	1	2	4	1	5	70	30	60	40	200
4	PCC	CO ____	Software Engineering	3	-	2	3	1	4	70	30	60	40	200
5	LC	CO ____	Skill Development Lab	-	-	2	-	1	1	-	-	60	40	100
6	LC	CO ____	Design thinking Lab-II	-	-	2	-	1	1	-	-	60	40	100
7	SI	CO ____	Evaluation of Industrial Training/Internship-I	-	-	-	-	-	2	-	-	-	100	100
8	OEC	CO ____	Open Elective Course-I	3	-	-	3	-	3	70	30	-	-	100
Total				15	2	10	17	5	24	350	150	300	300	1100

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	Pr.	SW	Total
1	PCC	CO34563	Design and Analysis of Algorithms	3	-	2	3	1	4	70	30	60	40	200
2	PCC	CO ____	Software Architecture	3	-	2	3	1	4	70	30	60	40	200
3	PCC	CO ____	Foundation of Information Security	3	-	2	3	1	4	70	30	60	40	200
4	PEC	CO ____	Elective I	3	-	2	3	1	4	70	30	60	40	200
5	PROJ	CO ____	Project Planning	-	-	2	-	1	1	-	-	60	40	100
6	OC	OC ____	Open Elective Course-II	3	-	-	3	-	3	70	30	-	-	100
Total				15	-	10	15	5	20	350	150	300	200	1000

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".

B.E. IV YEAR COMPUTER ENGINEERING

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	60	40	200
2	PEC		Elective - III	3	-	2	3	1	4	70	30	60	40	200
3	PEC		Elective - IV	3	-	2	3	1	4	70	30	60	40	200
4	LC	CO 4442	System Operations Lab	-	-	2	-	1	1	-	-	40	60	100
5	PROJ	CO44999/ CO44499	Project Phase-I/ Project Phase-II	-	-	6	-	3	3	-	-	40	60	100
6	SI	CO ____	Internship Evaluation - II	-	-	-	-	-	2	-	-	100	-	100
Total				9	-	14	9	7	18	210	90	360	240	600

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	1	3	70	30	40	60	200
2	PEC		Elective - VI	2	-	2	2	1	3	70	30	40	60	200
4	PROJ	CO44499/ CO44999	Project Phase - II / Project Phase - I	-	-	6	-	3	3	-	-	40	60	100
3	SI	CO ____	Internship Evaluation - III	-	-	-	-	-	4	-	-	100	-	100
Total				4	-	10	4	5	13	140	60	220	180	400

Electives

Elective-I

- 1. CO ___ Machine Learning
- 2. CO ___ Advanced Operating Systems
- 3. CO ___ Wireless & Mobile Networks
- 4. CO ___ Advanced Data Structures

Elective-II

- 1. CO ___ Data Science & Engineering
- 2. CO ___ Compiler Construction
- 3. CO ___ High Performance Computing
- 4. CO ___ Advanced Algorithms

Elective-III

- 1. CO ___ Computational Intelligence
- 2. CO ___ Network Security
- 3. CO ___ Advanced Databases
- 4. CO ___ Business Intelligence

Elective-IV

- 1. CO ___ Deep Learning
- 2. CO ___ Internet of Things
- 3. CO ___ Human Computer Interaction
- 4. CO ___ Cloud Computing

Elective-V

- 1. CO ___ Big Data
- 2. CO ___ Natural Language Processing
- 3. CO ___ Network Management & Maintenance
- 4. CO ___ Operations Research

Elective-VI

- 1. CO ___ Bioinformatics
- 2. CO ___ Software Project Management
- 3. CO ___ Cyber Forensics
- 4. CO ___ Cyber Physical Systems

List of Open Category-I Subjects (For Computer Engineering Students)

- 1. Introduction to Microcontroller (to be offered by E&TC/EI/EE departments)
- 2. Agile Software Development
- 3.

(For Non-Computer Engineering Students)

- 1. Software Engineering

List of Open Category-II Subjects (For Computer Engineering Students)

- 1. Android Software Development
- 2. Research Methodology
- 3. Linear Programming
- 4. Open Source Technologies

List of Open Category Subjects (For Non-Computer Engineering Students)

- 1. Artificial Intelligence