

**SCHOOL OF ENGINEERING AND TECHNOLOGY**  
**SRI PADMAVATI MAHILA VISVAVIDYALAYAM**  
(WOMEN'S UNIVERSITY), TIRUPATI



Accredited by NAAC with 'A' Grade

**B.Tech - Scheme of Evaluation - R20**

**Department of Computer Science and Engineering**  
Effective from 2020-21

## SCHEME OF INSTRUCTION AND EVALUATION OF B.TECH (CSE)

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## I YEAR - I SEMESTER (2020-21)

**THEORY**

S.No	Course Type	Course Code	Course Title	Hours per Week			Credits	Evaluation					Total Marks
								Internal (30 Marks)			External (70 Marks)		
				Assignment	Test			Duration	Max. Marks				
				Max. Marks	Duration	Max. Marks				Duration	Max. Marks		
1	BS	20BST04	Engineering Mathematics - 1	3	1	0	4	5	2	25	3	70	100
2	BS	20BST03	Engineering Physics	3	1	0	4	5	2	25	3	70	100
3	HUM	20BST01	Functional English	3	0	0	3	5	2	25	3	70	100
4	ES	20ECT01	Basic Electronics Engineering	2	1	0	3	5	2	25	3	70	100

**PRACTICALS**

S.No	Course Type	Course Code	Course Title	Hours per Week			Credits	Evaluation					Total Marks
								Internal (40 Marks)			External (60 Marks)		
				Continuous	Test			Duration	Max. Marks				
				Max. Marks	Duration	Max. Marks				Duration	Max. Marks		
5	BS	20BSP03	Engineering Physics Lab	0	0	2	1	20	2	20	3	60	100
6	HUM	20BSP01	Communicative English Lab	0	0	2	1	20	2	20	3	60	100
7	ES	20MEP03	Workshop and Manufacturing Practices	0	0	4	2	20	2	20	3	60	100
8	ES	20ECP01	Basic Electronics Engineering Lab	0	0	2	1	20	2	20	3	60	100

Total

11

3

10

19

800

## SCHEME OF INSTRUCTION AND EVALUATION OF B.TECH (CSE)

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## IYEAR - II SEMESTER (2020-21)

## THEORY

S.No	Course Type	Course Code	Course Title	Hours per Week			Credits	Evaluation					Total Marks
								Internal (30 Marks)			External (70 Marks)		
				Assignment	Test								
				Max. Marks	Duration	Max. Marks		Duration	Max. Marks				
1	BS	20BST05	Engineering Mathematics - II	3	1	0	4	5	2	25	3	70	100
2	BS	20BST02	Engineering Chemistry	3	1	0	4	5	2	25	3	70	100
3	ES	20CST01	Programming for Problem Solving	2	1	0	3	5	2	25	3	70	100
4	ES	20EET01	Basic Electrical Engineering	2	1	0	3	5	2	25	3	70	100
5	MAN	20BST13	Essence of Indian Knowledge Tradition	3	0	0	Satisfactory / Not Satisfactory						
6	MAN		NCC/NSS	2 Hours			Satisfactory / Not Satisfactory						

## PRACTICALS

S.No	Course Type	Course Code	Course Title	Hours per Week			Credits	Evaluation					Total Marks
								Internal (40 Marks)			External (60 Marks)		
				Continuous	Test								
				Max. Marks	Duration	Max.		Duration	Max.				
7	BS	20BSP02	Engineering Chemistry Lab	0	0	2	1	20	2	20	3	60	100
8	ES	20CSP01	Programming for Problem Solving Lab	0	0	4	2	20	2	20	3	60	100
9	ES	20EEP01	Basic Electrical Engineering Lab	0	0	2	1	20	2	20	3	60	100
10	ES	20MEP01	Engineering Graphics	0	0	6	3	20	2	20	3	60	100
<b>Total</b>				<b>13</b>	<b>4</b>	<b>14</b>	<b>21</b>						<b>800</b>

## SCHEME OF INSTRUCTION AND EVALUATION OF B.TECH (CSE)

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## II YEAR - I SEMESTER (2020-21)

## THEORY

S.No	Course Type	Course Code	Course Title	Hours per Week			Credits	Evaluation					Total Marks
								Internal (30 Marks)			External (70 Marks)		
				Assignment	Test			Duration	Max. Marks				
				Max. Marks	Duration	Max. Marks				Duration	Max. Marks		
L	T	P											
1	HUM	20BST08	Economics and Accountancy	3	1	0	4	5	2	25	3	70	100
2	HUM	20BST16	Universal Human Values & Ethics	3	0	0	3	5	2	25	3	70	100
3	ES	20ECT26	Digital Logic Design	2	1	0	3	5	2	25	3	70	100
4	ES	20MET13	Operations Research	3	1	0	4	5	2	25	3	70	100
5	PC	20CST02	Discrete Mathematics	2	1	0	3	5	2	25	3	70	100
6	PC	20CST03	Data Structures	2	1	0	3	5	2	25	3	70	100
7	MAN		NCC/NSS	2 Hours			Satisfactory / Not Satisfactory						

## PRACTICALS

S.No	Course Type	Course Code	Course Title	Hours per Week			Credits	Evaluation					Total Marks
								Internal (40 Marks)			External (60 Marks)		
				Continuous	Test			Duration	Max.				
				Max. Marks	Duration	Max.				Duration	Max.		
L	T	P											
8	ES	20ECP12	Digital Logic Design Lab	0	0	2	1	20	2	20	3	60	100
9	PC	20CSP02	Data structures Lab	0	0	2	1	20	2	20	3	60	100
10	PC	20CSP03	IT Workshop	0	0	2	1	20	2	20	3	60	100
11	SC	20CSS01	Skill Oriented Course 1	0	1	2	2	20	2	20	3	60	100
Total				15	6	8	25						1000

## SCHEME OF INSTRUCTION AND EVALUATION OF B.TECH (CSE)

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## II YEAR - II SEMESTER (2020-21)

## THEORY

S.No	Course Type	Course Code	Course Title	Hours per Week			Credits	Evaluation					Total Marks
								Internal (30 Marks)			External (70 Marks)		
				Assignment	Test			Duration	Max. Marks				
				Max. Marks	Duration	Max. Marks				Duration	Max. Marks		
1	BS	20BST07	Probability and Statistics	2	1	0	3	5	2	25	3	70	100
2	HUM	20BST09	Industrial Management	3	0	0	3	5	2	25	3	70	100
3	PC	20CST04	Computer Architecture and Organization	2	1	0	3	5	2	25	3	70	100
4	PC	20CST05	Object Oriented Programming	2	1	0	3	5	2	25	3	70	100
5	PC	20CST06	Database Management Systems	2	1	0	3	5	2	25	3	70	100
6	PE		Elective-I	2	1	0	3	5	2	25	3	70	100
7	MAN	20BST12	Environmental Studies	3	0	0	0	Satisfactory / Not Satisfactory					

## PRACTICALS

S.No	Course Type	Course Code	Course Title	Hours per Week			Credits	Evaluation					Total Marks
								Internal (40 Marks)			External (60 Marks)		
				Continuous	Test			Duration	Max.				
				Max. Marks	Duration	Max.				Duration	Max.		
8	PC	20CSP04	Object Oriented Programming Lab	0	0	2	1	20	2	20	3	60	100
9	PC	20CSP05	Database Management Systems Lab	0	0	2	1	20	2	20	3	60	100
10	PC	20CSP06	Mathematical Tool Kit Lab	0	0	2	1	20	2	20	3	60	100
11	SC	20CSS02	Skill Oriented Course 2	0	1	2	2	20	2	20	3	60	100
<b>Total</b>				<b>16</b>	<b>6</b>	<b>8</b>	<b>23</b>						<b>1000</b>

## SCHEME OF INSTRUCTION AND EVALUATION OF B.TECH (CSE)

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## III YEAR - I SEMESTER (2020-21)

## THEORY

S.No	Course Type	Course Code	Course Title	Hours per Week			Credits	Evaluation					Total Marks
								Internal (30 Marks)			External (70 Marks)		
				Assignment	Test			Duration	Max. Marks				
				Max. Marks	Duration	Max. Marks				Duration	Max. Marks		
1	HUM	20BST10	Entrepreneurship & Project Management	3	0	0	3	5	2	25	3	70	100
2	PC	20CST07	Theory of Computation	2	1	0	3	5	2	25	3	70	100
3	PC	20CST08	Design and Analysis of Algorithms	2	1	0	3	5	2	25	3	70	100
4	PC	20CST09	Operating Systems	2	1	0	3	5	2	25	3	70	100
5	PC	20CST10	Software Engineering	3	0	0	3	5	2	25	3	70	100
6	PE		Elective - II	2	1	0	3	5	2	25	3	70	100
7	MAN	20BST11	Constitution of India	3	0	0	0	Satisfactory / Not Satisfactory					

## PRACTICALS

S.No	Course Type	Course Code	Course Title	Hours per Week			Credits	Evaluation					Total Marks
								Internal (40 Marks)			External (60 Marks)		
				Continuous	Test			Duration	Max.	Duration	Max.		
				Max. Marks	Duration	Max.						Duration	
8	PC	20CSP07	Operating Systems Lab	0	0	2	1	20	2	20	3	60	100
9	PC	20CSP08	Software Engineering and Object Oriented Analysis and Design Lab	0	0	2	1	20	2	20	3	60	100
10	Intern	20CSI01	Internship-1	0	0	0	1	100	0	0	0	0	100
11	SC	20BSS01	Skill Oriented Course 3	0	1	2	2	20	2	20	3	60	100
<b>Total</b>				<b>17</b>	<b>5</b>	<b>6</b>	<b>23</b>						<b>1000</b>

## SCHEME OF INSTRUCTION AND EVALUATION OF B.TECH (CSE)

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## III YEAR - II SEMESTER (2020-21)

## THEORY

S.No	Course Type	Course Code	Course Title	Hours per Week			Credits	Evaluation					Total Marks
								Internal (30 Marks)		External (70 Marks)			
				L	T	P		Assignment	Test	Max. Marks	Duratio n	Max. Marks	
1	PC	20CST11	Compiler Design	2	1	0	3	5	2	25	3	70	100
2	PC	20CST12	Computer Networks	2	1	0	3	5	2	25	3	70	100
3	PE		Elective - III	2	1	0	3	5	2	25	3	70	100
4	OE		Open Elective - I	2	1	0	3	5	2	25	3	70	100
5	OE		Open Elective - II	3	0	0	3	5	2	25	3	70	100

## PRACTICALS

S.No	Course Type	Course Code	Course Title	Hours per Week			Credits	Evaluation					Total Marks
								Internal (40 Marks)		External (60 Marks)			
				L	T	P		Continuous	Test	Max. Marks	Duratio n	Max.	
7	PC	20CSP09	Compiler design Lab	0	0	2	1	20	2	20	3	60	100
8	PC	20CSP10	Computer Networks Lab	0	0	2	1	20	2	20	3	60	100
9	SC		Skill Oriented Course 4	0	1	2	2	20	2	20	3	60	100
<b>Total</b>				<b>11</b>	<b>5</b>	<b>6</b>	<b>19</b>						<b>800</b>

## SCHEME OF INSTRUCTION AND EVALUATION OF B.TECH (CSE)

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## IVYEAR - I SEMESTER (2020-21)

## THEORY

S.No	Course Type	Course Code	Course Title	Hours per Week			Credits	Evaluation					Total Marks
								Internal (30 Marks)		External (70 Marks)			
				Assignment	Test			Duration	Max. Marks	Duration	Max. Marks		
L	T	P	Max. Marks	Duration	Max. Marks	Duration	Max. Marks						
1	PC	20CST13	Machine Learning	2	1	0	3	5	2	25	3	70	100
2	PC	20CST14	Internet and Web Programming	2	1	0	3	5	2	25	3	70	100
3	PE	20CSM01	Elective - IV (Mandatory MOOCs)	0	0	0	3	0	0	0	0	0	100
4	PE		Elective - V	2	1	0	3	5	2	25	3	70	100
5	OE		Open Elective - III	3	0	0	3	5	2	25	3	70	100

## PRACTICALS

S.No	Course Type	Course Code	Course Title	Hours per Week			Credits	Evaluation					Total Marks
								Internal (40 Marks)		External (60 Marks)			
				Continuous	Test			Duration	Max.	Duration	Max.		
L	T	P	Max. Marks	Duration	Max.	Duration	Max.						
5	PC	20CSP11	Machine Learning Lab	0	0	2	1	20	2	20	3	60	100
6	PC	20CSP12	Internet and Web Programming Lab	0	0	2	1	20	2	20	3	60	100
7	Intern	20CSI02	Internship-2	0	0	0	1	100	0	0	0	0	100
8	SC		Skill Oriented Course 5	0	1	2	2	20	2	20	3	60	100
<b>Total</b>				<b>9</b>	<b>4</b>	<b>6</b>	<b>20</b>						<b>900</b>



SCHEME OF INSTRUCTION AND EVALUATION OF B.TECH (CSE)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

IV YEAR - II SEMESTER (2020-21)

**PRACTICALS**

S.No	Course Type	Course Code	Course Title	Hours per Week			Credits	Evaluation					Total Marks
								Internal (40 Marks)			External (60 Marks)		
				Continuous	Test								
				Max. Marks	Duration	Max.		Duration	Max.				
1	PW	20CSJ01	Internship-3 cum Project Work	0	0	26	13	40	0	0	0	60	100
<b>Total</b>				<b>0</b>	<b>0</b>	<b>26</b>	<b>13</b>						<b>100</b>

## SKILL ORIENTED COURSES

### PRACTICALS

S.No	Year / Semester	Skill Oriented Course No.	Course Code	Course Title	Hours per Week			Credits	Evaluation					Total Marks
					Internal (40 Marks)		External (60 Marks)							
					Continuous	Test	Duration		Max. Marks	Duration	Max. Marks			
L	T	P	Max. Marks	Duration	Max. Marks	Duration	Max. Marks							
1	II - I	SC1	20CSS01	Learning Tableau	0	1	2	2	20	2	20	3	60	100
2	II - II	SC2	20CSS02	PHP: Hypertext Preprocessor	0	1	2	2	20	2	20	3	60	100
3	III - I	SC3	20BSS01	Effective Communication Skills	0	1	2	2	20	2	20	3	60	100
<b>TRACK 1: INTEGRATED DEVELOPMENT ENVIRONMENT</b>														
4	III - II	SC4	20CSS03	Visual Studio	0	1	2	2	20	2	20	3	60	100
5	IV - I	SC5	20CSS04	Source Code Management using Git and Github	0	1	2	2	20	2	20	3	60	100
<b>TRACK 2: MOBILE APP DEVELOPMENT</b>														
6	III - II	SC4	20CSS05	Android App Development	0	1	2	2	20	2	20	3	60	100
7	IV - I	SC5	20CSS06	IoS App Development	0	1	2	2	20	2	20	3	60	100
<b>TRACK 3: DATABASE</b>														
8	III - II	SC4	20CSS07	Mongo DB	0	1	2	2	20	2	20	3	60	100
9	IV - I	SC5	20CSS08	Hadoop and Apache Spark	0	1	2	2	20	2	20	3	60	100
<b>TRACK 4: SERVER SIDE SCRIPTING LANGUAGES</b>														
10	III - II	SC4	20CSS09	Java Script	0	1	2	2	20	2	20	3	60	100
11	IV - I	SC5	20CSS10	ASP: Active Server Pages	0	1	2	2	20	2	20	3	60	100
<b>TRACK 5: ANIMATION</b>														
12	III - II	SC4	20CSS11	Animation for Beginners	0	1	2	2	20	2	20	3	60	100
13	IV - I	SC5	20CSS12	VFX: Visual Effects	0	1	2	2	20	2	20	3	60	100
<b>Total</b>					<b>0</b>	<b>5</b>	<b>10</b>	<b>10</b>						<b>500</b>

## SCHOOL OF ENGINEERING AND TECHNOLOGY

## SRI PADMAVATI MAHILA VISVAIDYALAYAM

## SCHEME OF INSTRUCTION AND EVALUATION OF B.TECH (CSE)

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## LIST OF ELECTIVES

**ELECTIVE – I****ELECTIVE - III**

S.No	Course Code	Course Title
1	20CST15	Data Communication
2	20CST16	System Programming
3	20CST17	Software Project Management
4	20CST18	Data Mining

S.No	Course Code	Course Title
1	20CST23	Cryptography and Network Security
2	20CST24	Neural Networks
3	20CST25	Cloud Computing
4	20CST26	Distributed Computing

**ELECTIVE - II****ELECTIVE - IV**

S.No	Course Code	Course Title
1	20CST19	Software Testing
2	20CST20	Wireless Networks
3	20CST21	Information Security
4	20CST22	Big Data Analytics

S.No	Course Code	Course Title
1	20CSM01	Mandatory MOOCs

**ELECTIVE - V**

S.No	Course Code	Course Title
1	20CST27	Artificial Intelligence
2	20CST28	Deep Learning
3	20CST29	Data Science
4	20CST30	Speech and Natural Language Processing
5	20CST39	Internet of Things

**SCHOOL OF ENGINEERING AND TECHNOLOGY****SRI PADMAVATI MAHILA VISVAIDYALAYAM****SCHEME OF INSTRUCTION AND EVALUATION OF B.TECH (CSE)****DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING****LIST OF OPEN ELECTIVES OFFERED BY CSE TO OTHER DEPARTMENTS (2020-21)****OPEN ELECTIVE - I**

S. No	Course Code	Course Title
1	20CST31	Introduction to C++ Programming
2	20CSP13	Advanced Programming Lab
3	20CST32	Fundamentals of Computer Organization

**OPEN ELECTIVE - II**

S. No	Course Code	Course Title
1	20CST33	Basics of Computer Networks
2	20CST34	Introduction to Cyber Security
3	20CST35	Introduction to Cloud Computing

**OPEN ELECTIVE - III**

S. No	Course Code	Course Title
1	20CST36	Introduction to Artificial Intelligence
2	20CST37	Introduction to Java Programming
3	20CST38	Fundamentals of Internet of Things

# Open Electives offered by other departments

## OPEN ELECTIVE - I

S.No	Course Code	Course Title	Offering Department
1	20ECT27	Pulse and Digital Circuits	ECE
2	20ECT28	Electronic Measurements	
3	20EET28	Electrical Engineering Materials	EEE
4	20EET29	Energy Auditing and Demand Side Management	
5	20MET33	Power Plant Engineering	ME
6	20MET34	Plant Layout and Design	
7	20MET35	Energy Conservation and Management	
8	20MUP01	Music Vocal	BS&H
9	20MUP02	Dance Bharatanatyam	
10	20MUP03	Dance Kuchipudi	

## OPEN ELECTIVE - II

S.No	Course Code	Course Title	Offering Department
1	20ECT29	Communication Systems	ECE
2	20ECT30	Microprocessors & Interfacing	
3	20ECT31	Digital Design using VHDL	
4	20EET30	Artificial Neural Networks	EEE
5	20EET31	Energy Storage Systems	ME
6	20MEPI3	Engineering Projects in Community Services	
7	20MET36	Time and Motion Study	
8	20MET37	Nano Technology	BS&H
9	20BSTI4	LSRW Skills	

## OPEN ELECTIVE - III

S.No	Course Code	Course Title	Offering Department
1	20ECT32	Microcontrollers & Interfacing	ECE
2	20ECT33	Basics of Embedded Systems	
3	20ECT34	Digital Image Processing	
4	20EET32	Conventional & Non-Conventional Energy Sources	EEE
5	20EET33	Design Costing of Electrical System	
6	20MET38	Total Quality Management	ME
7	20MET39	Production Planning and Control	
8	20MET40	Supply Chain Management	
9	20BSTI5	Data Analytics for Decision Making	BS&H