

Proposed for the academic years 2020-2024

**SCHEME OF INSTRUCTION & EXAMINATION**

**B.E (Computer Science and Engineering)**

**SEMESTER-I**

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P / D	Contact Hrs / Wk	CIE	SEE	Duration in Hrs	
<b>Theory Courses</b>										
1.	<b>Three Week Induction Program</b>									
2.	MC 802 CE	Environmental Sciences	2	-	-	2	30	70	3	-
3.	MC 803 PY	Essence of Indian Traditional Knowledge	2	-	-	2	30	70	3	-
4.	BS 201 MT	Mathematics-I	3	1	-	4	30	70	3	4
5.	BS 204 CH	Chemistry	3	1	-	4	30	70	3	4
6.	ES 302 CS	Programming for Problem Solving	3	-	-	3	30	70	3	3
<b>Practical / Laboratory Courses</b>										
7.	BS 252CH	Chemistry Lab	-	-	3	3	25	50	3	1.5
8.	ES 351 CS	Programming for Problem Solving Lab	-	-	2	2	25	50	3	1
9.	ES 352 ME	Workshop Practice	-	-	2x3	6	50	50	3	3
<b>Total</b>			<b>13</b>	<b>02</b>	<b>11</b>	<b>26</b>	<b>250</b>	<b>500</b>		<b>16.5</b>

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**SCHEME OF INSTRUCTION & EXAMINATION**

**B.E (Computer Science and Engineering)**

**SEMESTER-II**

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P / D	Contact Hrs / Wk	CIE	SEE	Duration in Hrs	
<b>Theory Courses</b>										
1	MC 801 PO	Indian Constitution	2	-	-	2	30	70	3	-
2	HS 101 EG	English	2	-	-	2	30	70	3	2
3	BS 202 PH	Physics	3	1	-	4	30	70	3	4
4	BS 203MT	Mathematics-II	3	1	-	4	30	70	3	4
5	ES 301 EE	Basic Electrical Engineering	3	1	-	4	30	70	3	4
<b>Practical / Laboratory Courses</b>										
6	HS 151EG	English Lab	-	-	2	2	25	50	3	1
7	BS 251PH	Physics Lab	-	-	3	3	25	50	3	1.5
8	ES 353 CE	Engineering Graphics		-	3x2	6	50	50	3	3
9	ES 354 EE	Basic Electrical Engineering Lab	-	-	2	2	25	50	3	1
<b>Total</b>			<b>13</b>	<b>03</b>	<b>13</b>	<b>29</b>	<b>275</b>	<b>550</b>		<b>20.5</b>

BE(CSE) SEMESTER-III, IV with Effect from AY(21-22)

CSE: SEMESTER – III

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
<b>Theory Courses</b>										
1	HS 103 ME	Operations Research	3	-	-	3	30	70	3	3
2	ES 306 EC	Basic Electronics	3	-	-	4	30	70	3	3
3	ES 303 EC	Digital Electronics	3	1	-	4	30	70	3	3
4	PC 301 CS	Data Structures and Algorithms	3	1	-	4	30	70	3	3
5	PC 302 CS	Discrete Mathematics	3	1	-	4	30	70	3	3
6	PC 303 CS	OOP using JAVA	3	1	-	4	30	70	3	3
<b>Practical/ Laboratory Courses</b>										
7	PC 351 CS	Data Structures and Algorithms Lab	-	-	2	2	25	50	3	1
8	PC 352 CS	Advanced Computer Skills Lab	-	-	2	2	25	50	3	1
9	ES 351 EC	Basic Electronics Lab	-	-	2	2	25	50	3	1
10	PC 353 CS	OOP using JAVA Lab	-	-	2	2	25	50	3	1
<b>Total</b>			<b>18</b>	<b>4</b>	<b>08</b>	<b>30</b>	<b>280</b>	<b>620</b>		<b>22</b>

**CSE: SEMESTER – IV**

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
<b>Theory Courses</b>										
1	HS 104 EG	Effective Technical Communication in English	3	-	-	3	30	70	3	3
2	HS 105 CM	Finance and Accounting	3	1	-	4	30	70	3	3
3	BS 207 MT	Mathematics – III (Probability & Statistics)	3	-	-	3	30	70	3	3
4	ES 305 EC	Signals and Systems	3	-	-	3	30	70	3	3
5	PC 401 CS	Operating Systems	3	-	-	3	30	70	3	3
6	PC 402 CS	Computer Organization	3	1	-	4	30	70	3	3
7	PC 403 CS	Database Management Systems	3	1	-	4	30	70	3	3
<b>Practical/ Laboratory Courses</b>										
8	PC 451 CS	Computer Organization Lab	-	-	2	2	25	50	3	1
9	PC 452 CS	Operating Systems Lab	-	-	2	2	25	50	3	1
10	PC 453 CS	Database Management Systems Lab	-	-	2	2	25	50	3	1
<b>Total</b>			<b>21</b>	<b>3</b>	<b>06</b>	<b>30</b>	<b>285</b>	<b>640</b>		<b>24</b>

**CSE: SEMESTER -V**

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	D/P	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
<b>Theory Courses</b>										
1	PC 501 CS	Software Engineering	3	1	-	4	30	70	3	3
2	PC 502 CS	Programming Languages	3	1	-	4	30	70	3	3
3	PC 503 CS	Automata Languages & Computation	3	1	-	4	30	70	3	3
4	PE-I	Professional Elective-I	3	-	-	3	30	70	3	3
5	PE-II	Professional Elective-II	3	-	-	3	30	70	3	3
6	PE-III	Professional Elective-III	3	-	-	3	30	70	3	3
<b>Practical/Laboratory Courses</b>										
7	PC 551 CS	Software Engineering Lab	-	-	2	2	25	50	3	1
8	PC 552 CS	Programming Languages Lab	-	-	2	2	25	50	3	1
9	PW 533 CS	Mimi Project	-	-	4	4	25	50	3	2
<b>Total</b>			<b>18</b>	<b>03</b>	<b>08</b>	<b>29</b>	<b>255</b>	<b>570</b>		<b>22</b>

<b>Profession Elective – I</b>	
Course Code	Course Title
PE 511 CS	Artificial Intelligence
PE 512 CS	Advanced Computer Architecture
PE 513 CS	Network Security
PE 514 CS	Foundations of Cryptography

<b>Profession Elective – II</b>	
Course Code	Course Title
PE 531 CS	Web Technologies
PE 532 CS	Embedded Systems
PE 533 CS	Graph Theory
PE 534 CS	Data Analytics

<b>Profession Elective – III</b>	
Course Code	Course Title
PE 521 CS	Block Chain Technologies
PE 522 CS	Information Retrieval Systems
PE 523 CS	Soft Computing
PE 524 CS	Computer Graphics

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**CSE: SEMESTER - VI**

S. No	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	D/P	Contact Hrs/Wk	CIE	SEE	Duration in Hrs/Wk	
<b>Theory Courses</b>										
1	PC 601 CS	Compiler Design	3	1	-	4	30	70	3	3
2	PC 602 CS	Computer Networks	3	1	-	4	30	70	3	3
3	PC 603 CS	Design and Analysis of Algorithms	3	1	-	3	30	70	3	3
4	PE -IV	Professional Elective -IV	3	-	-	3	30	70	3	3
5	PE -V	Professional Elective -V	3	-	-	3	30	70	3	3
6	OE-I	Open Elective-I	3	-	-	-	30	70	3	3
<b>Practical/Laboratory Courses</b>										
7	PC 651 CS	Compiler Design Lab	-	-	2	2	25	50	3	1
8	PC 652 CS	Computer Networks Lab	-	-	2	2	25	50	3	1
9	PC 653 CS	Design and Analysis of Algorithms Lab	-	-	2	2	25	50	3	1
10	SI 671 CS	Summer Internship*	-	-	-	-	-	-	-	-
<b>Total</b>			<b>18</b>	<b>3</b>	<b>6</b>	<b>27</b>	<b>255</b>	<b>570</b>		<b>21</b>

<b>Open Elective- I</b>		
Sl.No	Code	Name of Subject
1	OE601 EE	Electrical Energy Conservation and Safety (Not for EEE & EIE Students)
2	OE602 EE	Reliability Engineering (Not for EEE & EIE Students)
3	OE611 AE	Automobile Engineering (Not for Auto. Engg. students)
4	OE611 ME	Entrepreneurship (Not for Mech Engg& Prod. Engg. students)
5	OE601 EG	Soft Skills & Interpersonal Skills
6	OE602 MB	Human Resource Development and Organizational Behaviour
7	OE601 LW	Cyber Law and Ethics
8	OE601 CS	Operating Systems (Not for CSE Students)
9	OE602 CS	OOP using Java (Not for CSE Students)
10	OE601 IT	Database Systems (Not for IT Students)
11	OE602 IT	Data Structures (Not for IT Students)
12	OE601 CE	Disaster Mitigation (Not for Civil Engg. Students)

Proposed for the academic years 2020-2024

**SCHEME OF INSTRUCTION  
BE (COMPUTER SCIENCE AND ENGINEERING)  
SEMESTER - VII**

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
<b>Theory Courses</b>										
1	PC 701 CS	Information Security	3	-	-	4	30	70	3	3
2	PC 702 CS	Data Mining	3	1	-	4	30	70	3	3
3	PC 703 CS	Distributed Systems	3	1	-	3	30	70	3	3
4	OE-II	Open Elective -II	3	-	-	3	30	70	3	3
<b>Practical/ Laboratory Courses</b>										
5	PC 751 CS	Distributed Systems Lab	-	-	2	3	25	50	3	1
6	PC 752 CS	Data Mining Lab	-	-	2	3	25	50	3	1
7	PW 751 CS	Project Work – I	-	-	6	6	50	-	-	3
8	SI 752 CS	Summer Internship	-	-	-	-	50	-	-	2
<b>Total</b>			<b>12</b>	<b>02</b>	<b>10</b>	<b>24</b>	<b>270</b>	<b>380</b>		<b>19</b>

<b>Open Elective – II</b>		
1	OE603 EE	Non-Conventional Energy Sources (Not for EEE & EIE Students)
2	OE604 EE	Transducers and Sensors (Not for EEE & EIE Students)
3	OE621 AE	Automotive maintenance (Not for Auto. Engg. students)
4	OE621 ME	Industrial Robotics (Not for Mech Engg& Prod. Engg. students)
5	OE602 CE	Green Building Technologies (Not for Civil Engg. Students)
6	OE602 CS	Data Science Using R (Not for CSE Students)
7	OE 603 IT	Cyber Security (Not for IT Students)

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**SCHEME OF INSTRUCTION  
BE (COMPUTER SCIENCE AND ENGINEERING)  
CSE-Semester -VIII**

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
<b>Theory Courses</b>										
1	PE-VI	Professional Elective -VI	3	-	-	3	30	70	3	3
2	OE-III	Open Elective – III	3	-	-	3	30	70	3	3
<b>Practical/ Laboratory Courses</b>										
3	PW861 CS	Project Work – II	-	-	10	10	50	100	-	8
<b>Total</b>			<b>06</b>	<b>-</b>	<b>10</b>	<b>16</b>	<b>110</b>	<b>240</b>	<b>-</b>	<b>14</b>

<b>Open Elective – III</b>		
1	OE605 EE	Smart Building Systems (Not for EEE & EIE Students)
2	OE606 EE	Programmable Logic Controllers (Not for EEE & EIE Students)
3	OE631 AE	Automotive Safety and Ergonomics (Not for Auto. Engg students)
4	OE631 ME	Mechatronics (Not for Mech Engg& Prod. Engg. students)
5	OE603 CE	Road Safety Engineering (Not for Civil Engg. Students)
6	OE604 IT	Software Engineering (Not for IT Students)