

**SCHEME OF INSTRUCTION & EXAMINATION  
B.E. (Computer Science and Engineering) III – SEMESTER**


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	MC112CE	Environmental Science	2	-	-	2	30	70	3	-
2	MC113PY	Essence of Indian Traditional Knowledge	2	-	-	2	30	70	3	-
3	HS204ME	Operations Research	3	-	-	3	30	70	3	3
4	BS206BZ	Biology for Engineers	3	-	-	3	30	70	3	3
5	ES214EC	Basic Electronics	3	-	-	3	30	70	3	3
6	ES216EC	Digital Electronics	3	-	-	3	30	70	3	3
7	PC221CS	Data Structures and Algorithms	3	-	-	3	30	70	3	3
8	PC222CS	Discrete Mathematics	3	-	-	3	30	70	3	3
9	PC223CS	Programming Languages	3	-	-	3	30	70	3	3
<b>Practical/ Laboratory Courses</b>										
10	ES251EC	Basic Electronics Lab	-	-	2	2	25	50	3	1
11	PC252CS	Data Structures and Algorithms Lab	-	-	2	2	25	50	3	1
12	PC253CS	Advanced Computer Skills Lab	-	-	2	2	25	50	3	1
			<b>25</b>	<b>-</b>	<b>06</b>	<b>31</b>	<b>345</b>	<b>780</b>		<b>24</b>

HS: Humanities and Social Sciences      BS: Basic Science      ES: Engineering Science  
 MC: Mandatory Course                      PC: Professional Core  
 L: Lecture      T: Tutorial                      P: Practical                      D: Drawing  
 CIE: Continuous Internal Evaluation                      SEE: Semester End Evaluation (Univ. Exam)  
 PY: Philosophy, BZ: Biology/ Life Sciences, CE: Civil Engineering, CS: Computer Science and Engineering  
 EC: Electronics and Communication Engineering, ME: Mechanical Engineering.

**Note:**

1. Each contact hour is a clock hour
2. The duration of the practical class is two hours, however it can be extended wherever necessary, to enable the student to complete the experiment.
3. All the mentioned **Mandatory Courses** should be offered either in I-Semester or II-Semester only from the academic year 2019-2020.
4. For those of the students admitted during the academic year 2018-2019, since the Mandatory Courses were not offered during the I-Semester or II-Semester, they should be offered either in III-Semester or IV-Semester of the academic year 2019-2020.

  
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**SCHEME OF INSTRUCTION & EXAMINATION  
B.E. (Computer Science and Engineering) IV – SEMESTER**

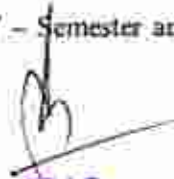
S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
<b>Theory Courses</b>										
1	MC111PO	Indian Constitution	2	-	-	2	30	70	3	-
2	HS201EG	Effective Technical Communication in English	3	-	-	3	30	70	3	3
3	HS202CM	Finance and Accounting	3	-	-	3	30	70	3	3
4	BS207MT	Mathematics – III (Probability & Statistics)	3	-	-	3	30	70	3	3
5	ES215EC	Signals and Systems	3	-	-	3	30	70	3	3
6	PC231CS	OOP using JAVA	3	-	-	3	30	70	3	3
7	PC232CS	Computer Organization	3	-	-	3	30	70	3	3
8	PC233CS	Database Management Systems	3	-	-	3	30	70	3	3
<b>Practical/Laboratory Courses</b>										
9	PC261CS	Computer Organization Lab	-	-	2	2	25	50	3	1
10	PC262CS	OOP using JAVA Lab	-	-	2	2	25	50	3	1
11	PC263CS	Database Management Systems Lab	-	-	2	2	25	50	3	1
			<b>23</b>	<b>-</b>	<b>06</b>	<b>29</b>	<b>315</b>	<b>710</b>		<b>24</b>

HS: Humanities and Social Sciences      BS: Basic Science      ES: Engineering Science  
 MC: Mandatory Course                      PC: Professional Core  
 L: Lecture      T: Tutorial                      P: Practical                      D: Drawing  
 CIE: Continuous Internal Evaluation                      SEE: Semester End Evaluation (Univ. Exam)  
 PO: Political Science, EG: English, CM: Commerce, MT: Mathematics,  
 CS: Computer Science and Engineering, EC: Electronics and Communication Engineering.

**Note:**

1. Each contact hour is a clock hour
2. The duration of the practical class is two hours, however it can be extended wherever necessary, to enable the student to complete the experiment.
3. All the mentioned **Mandatory Courses** should be offered either in I-Semester or II-Semester only from the academic year 2019-2020.
4. For those of the students admitted during the academic year 2018-2019, since the Mandatory Courses were not offered during the I-Semester or II Semester, they should be offered either in III-Semester or IV-Semester of the academic year 2019-2020.
5. The students have to undergo a Summer Internship of two-week duration after IV – Semester and credits will be awarded in V – Semester after evaluation.

  
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**SCHEME OF INSTRUCTION & EXAMINATION**  
**B.E. V - Semester**  
**(COMPUTER SCIENCE & ENGINEERING)**

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 Course</b>										
1.	PC501CS	Database Management Systems	3	-	-	3	30	70	3	3
2.	PC502CS	Data Communications	3	-	-	3	30	70	3	3
3.	PC503CS	Automata, Languages & Computation	3	1	-	4	30	70	3	3
4.	PC504CS	Operating Systems	3	-	-	3	30	70	3	3
5.	PC505CS	Computer Graphics	3	1	-	4	30	70	3	3
6.	HS901 MB	Managerial Economics and Accountancy	3	-	-	3	30	70	3	3
7.	PE-I	Professional Elective-I	3	-	-	3	30	70	3	3
8.	MC901EG	Gender Sensitization	3	-	-	3	30	70	3	0
<b>Practical/ Laboratory Course</b>										
9.	PC551CS	Database Management Systems Lab	-	-	2	2	25	50	3	1
10.	PC552CS	Operating Systems Lab	-	-	2	2	25	50	3	1
11.	PC553CS	Computer Graphics Lab	-	-	2	2	25	50	3	1
<b>Total</b>			<b>24</b>	<b>02</b>	<b>06</b>	<b>32</b>	<b>315</b>	<b>710</b>	<b>-</b>	<b>24</b>

**Professional Elective – I**

S. No.	Course Code	Course Title
1	PE501 CS	Advanced Computer Architecture
2	PE502 CS	Artificial Intelligence
3	PE503 CS	Simulation and Modeling

PC: Professional Course

HS: Humanities and social science

L: Lecture

T: Tutorial

CIE: Continuous Internal Evaluation,

PE: Professional Elective

MC: Mandatory Course

P: Practical

D: Drawing

SEE: Semester End Examination (Univ. Exam)

**Note:**

- Each contact hour is a Clock Hour
- The duration of the practical class is two clock hours, however it can be extended when necessary, to enable the student to complete the experiment

**SCHEME OF INSTRUCTION & EXAMINATION**  
**B.E. VI - Semester**  
**(COMPUTER SCIENCE & ENGINEERING)**

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 Course</b>										
1	PC601CS	Design and Analysis of Algorithms	3	1	-	4	30	70	3	3
2	PC602CS	Software Engineering	3	1	-	4	30	70	3	3
3	PC603CS	Web Programming	3	1	-	4	30	70	3	3
4	PC604CS	Computer Networks & Programming	3	1	-	4	30	70	3	3
5	PE-II	Professional Elective-II	3	1	-	4	30	70	3	3
6	OE	Open Elective-I	3	-	-	3	30	70	3	3
<b>Practical/ Laboratory Course</b>										
7.	PC651CS	Software Engineering Lab	-	-	2	2	25	50	3	1
8.	PC652CS	Web Programming Lab	-	-	2	2	25	50	3	1
9.	PC653CS	Computer Networks & Programming Lab	-	-	2	2	25	50	3	1
10.	MC	Mandatory Course	-	-	3	3	50	-	3	0
11.	SI671CS	Summer Internship*	-	-	-	-	-	-	-	-
<b>Total</b>			<b>18</b>	<b>05</b>	<b>09</b>	<b>32</b>	<b>305</b>	<b>570</b>		<b>21</b>

PC: Professional Course

PE: Professional Elective

MC: Mandatory Course

OE: Open Elective

SI: Summer Internship

L: Lecture T: Tutorial

P: Practical D: Drawing

CIE: Continuous Internal Evaluation

SEE: Semester End Examination (Univ. Exam)

**Note-1:**

- Each contact hour is a Clock Hour
- The practical class can be of two and half hour (clock hours) duration as per the requirement of a particular laboratory.

**Note-2:**

\*The students have to undergo a Summer Internship of four weeks duration after VI semester and credits will be awarded in VII semester after evaluation.

\*\* Subject is not offered to the students of CSE and IT Department.

*[Signature]*  
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**SCHEME OF INSTRUCTION & EXAMINATION**  
**B.E. VII - Semester**  
**(COMPUTER SCIENCE AND ENGINEERING)**

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	Compiler Construction	3	1	-	4	30	70	3	3
2	PC 702 CS	Distributed Systems	3	1	-	4	30	70	3	3
3	PC 703 CS	Information Security	3	1	-	4	30	70	3	3
4	PC 704 CS	Data Mining	3	1	-	4	30	70	3	3
5		Open Elective - II	3	-	-	3	30	70	3	3
6		Open Elective - III	3	-	-	3	30	70	3	3
<b>Practical/ Laboratory Courses</b>										
7	PC 751 CS	Compiler Construction Lab	-	-	2	2	25	50	-	1
8	PC 752 CS	Distributed Systems Lab	-	-	2	2	25	50	-	1
9	PC 753 CS	Data Mining Lab	-	-	2	2	25	50	-	1
10	PW 761 CS	Project Work - I	-	-	4	4	50	-	-	2
11	SI 762 CS	Summer Internship	-	-	-	-	50	-	-	2
			18	04	10	32	355	570		25

Open Elective - II			Open Elective - III		
S. No.	Course Code	Course Title	S. No.	Course Code	Course Title
1	OE 771 CE	Green Building Technologies	1	OE 781 CE	Road Safety Engineering
2	OE 772 CS**	Data Science Using R Programming	2	OE 782 IT**	Software Engineering
3	OE 773 EC	Fundamentals of IoT	3	OE 783 EC	Principles of Electronic Communications
4	OE 774 EE	Non-Conventional Energy Sources	4	OE 784 EE	Illumination and Electric Traction systems
5	OE 775 ME	Entrepreneurship	5	OE 785 ME	Mechatronics

PC: Professional Course

L: Lectures

T: Tutorials

CIE: Continuous Internal Evaluation

PE: Professional Elective

P: Practical

D: Drawing

SEE: Semester End Examination (Univ. Exam)

Note: 1) Each contact hour is a Clock Hour

2) The practical class can be of two and half hour (clock hours) duration as per the requirement of a particular laboratory.

Note-2: \* The students have to undergo a Summer Internship of four weeks' duration after VI semester and credits will be awarded in VII semester after evaluation.

\*\* Subject is not offered to the students of CSE and IT Departments.

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 27/03/2022  
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**SCHEME OF INSTRUCTION & EXAMINATION**  
**B.E. VIII - SEMESTER**  
**(COMPUTER SCIENCE AND ENGINEERING)**

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		Professional Elective - III	3	-	-	3	30	70	3	3
2		Professional Elective - IV	3	-	-	3	30	70	3	3
3		Professional Elective - V	3	-	-	3	30	70	3	3
<b>Practical/ Laboratory Courses</b>										
4	PW 961 CS	Project Work - II	-	-	16	16	50	100	-	8
			09	-	16	25	140	310		17

Professional Elective - III			Professional Elective - IV		
S. No.	Course Code	Course Title	S. No.	Course Code	Course Title
1	PE 821 CS	Mobile Computing	1	PE 831 CS	Embedded Systems
2	PE 822 CS	Image Processing	2	PE 832 CS	Information Retrieval Systems
3	PE 823 CS	Software Quality and Testing	3	PE 833 CS	Machine Learning
4	PE 824 CS	Web Services and Architecture	4	PE 834 CS	Natural Language Processing
5	PE 825 CS	Computational Intelligence	5	PE 835 CS	Data Science using R Programming
<b>Professional Elective - V</b>					
1	PE 841 CS	Multicore and GPU Programming			
2	PE 842 CS	Cloud Computing			
3	PE 843 CS	Human Computer Interaction			

PC: Professional Course

L: Lectures

T: Tutorials

CIE: Continuous Internal Evaluation

PE: Professional Elective

P: Practical

D: Drawing

SEE: Semester End Examination (Univ. Exam)

Note: 1) Each contact hour is a Clock Hour

2) The duration of the practical class is two clock hours, however it can be extended wherever necessary, to enable the student to complete the experiment

*[Signature]*  
 25/03/2022  
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