	Meeru	t Institu	te of Engineering	and Technology, Meerut
	List of Subj	ects and	Concerned Course te	eachers # B Tech - CSE (2023-24)
S. No.	Year (session) of Study	Sem	Subject Code	Subject Name
1	2023-24	1/11	BAS101/201	Engg. Physics
2	2023-24	1/11	BAS102/202	Engg. Chemistry
3	2023-24	1	BAS103	Engg. Mathematics I
4	2023-24	1/11	BEE101/201	Fundamentals of Electrical Engineering
5	2023-24	1/11	BEC101/201	Fundamentals of Electronics Engg.
6	2023-24	1/11	BCS101/201	Programming for Problem Solving
7	2023-24	1/11	BME101/201	Fundamentals of Mechanical Engg.
8	2023-24	1/11	BAS104/204	Environment and Ecology
9	2023-24	1/11	BAS105/205	Soft Skills
10	2023-24	1/11	BAS151/251	Engg. Physics Lab
11	2023-24	1/11	BAS152/252	Engg. Chemistry Lab
12	2023-24	1/11	BEE151/251	Basic Electrical Engineering Lab
13	2023-24	1/11	BEC151/251	Basic Electronics Engg. Lab
14	2023-24	1/11	BCS151/251	Programming for Problem Solving Lab
15	2023-24	1/11	BAS155/255	English Language Lab
16	2023-24	1/11	BCE151/251	Engg. Graphics and Design Lab
17	2023-24	1/11	BWS151/251	Workshop Practice Lab
18	2023-24	Ш	BAS203	Engg. Mathematics II
19	2023-24	Ш	BVA251	Sports and Yoga
20	2023-24	Ш	BAS303	Maths -IV
21	2023-24	Ш	BVE301	Universal Human Values and Professional Ethics
22	2023-24	Ш	BCS301	Data Structure
23	2023-24	- 10	BCS302	Computer Organization & Architecture
24	2023-24	Ш	BCS 303	Discrete Structures & Theory of Logic
25	2023-24	Ш	BCS 351	Data Structures Lab
26	2023-24	Ш	BCS 352	Computer Organization and Architecture Lab
27	2023-24	Ш	BCS 353	Web Designing Workshop
28	2023-24	Ш	BCC 301	Cybersecurity
29	2023-24	- 111	BCC351	Mini Project / Internship Assessment
				Science Based Open Elective(Digital Electronics)
21	2022.24	11/	DAC401	Technical Communication
22	2023-24	IV IV	BA3401	Operation Sustem
32	2023-24	IV IV	BCS 401	Theory of Automata & Formal Languager
24	2023-24	IV IV	BC5 402	Object Oriented Programming with Java
25	2023-24	IV IV	BC5 403	Operating System Lab
35	2023-24	IV IV	BC5451	Object Oriented Programming with Java Lab
37	2023-24	IV	BCS 452	Cyber Security Workshop
38	2023-24	IV.	BCC402	Python Programming
39	2023-24	IV	BVE451	Sports and Yoga - II
40	2023-24	V	KCS 501	Data Base Management Systems
41	2023-24	v	KCS 502	Compiler Design
42	2023-24	v	KCS 502	Design & Analysis of Algorithms
43	2023-24	v	KCS 052	Web Designing
44	2023-24	v	KCS 055	Machine Learning Techniques
45	2023-24	v	KCS551	Data Base Management Systems Lab
46	2023-24	v	KCS 552	Compiler Design Lab
47	2023-24	v	KCS 553	Design & Analysis of Algorithms Lab
48	2023-24	v	KC\$554	Mini Project
49	2023-24	v	KNC501	Constitution of India, Law and Engineering
50	2023-24	VI	KCS 601	Software Engineering
51	2023-24	VI	KCS 602	Web Technology
52	2023-24	VI	KCS 603	Computer Networks
53	2023-24	VI	KCS061H	Department Elective - III
54	2023-24	VI	KOE068	Open Elective - I

55 2023-24 VI KCS 651 Software Engg Lab 56 2023-24 VI KCS 652 Web Technology Lab 57 2023-24 VI KCS 653 Computer Networks Lab 59 2023-24 VI KKC 602 Indian Tradition, Culture & Society 59 2023-24 VII KKH 070 Project Management & Entrepreneurship 60 2023-24 VII KKS 071 Artificial Intelligence 61 2023-24 VII KCS 071 Distributed Systems 62 2023-24 VII KCS 071 Cloud Computing 63 2023-24 VII KCS 713 Cloud Computing 64 2023-24 VII KCS 751A Artificial Intelligence Lab 65 2023-24 VII KCS 751A Artificial Intelligence Lab 66 2023-24 VII KCS 753 Project/Internship Assessment 67 2023-24 VII KCS 753 Project/Internship Assessment 68 2023-24 VIII					
56 2023-24 VI KCS 652 Web Technology Lab 57 2023-24 VI KCS 653 Computer Networks Lab 58 2023-24 VI KCS 653 Computer Networks Lab 59 2023-24 VII KNC 602 Indian Tradition, Culture & Society 59 2023-24 VII KKC 707 Project Management & Entrepreneurship 61 2023-24 VII KCS 071 Artificial Intelligence 62 2023-24 VII KCS 077 Distributed Systems 63 2023-24 VII KCS 713 Cloud Computing 64 2023-24 VII KCS 751A Artificial Intelligence Lab 65 2023-24 VII KCS 751A Artificial Intelligence Lab 66 2023-24 VII KCS 753 Project 67 2023-24 VII KCS 753 Project 68 2023-24 VII KCB 753 Project 69 2023-24 VIII KCB 753 Proj	55	2023-24	VI	KCS 651	Software Engg Lab
57 2023-24 VI KKS 653 Computer Networks Lab 58 2023-24 VI KKC 602 Indian Tradition, Culture & Society 59 2023-24 VII KKU 702 Project Management & Entrepreneurship 60 2023-24 VII KKC 5071 Artificial Intelligence 61 2023-24 VII KKC 5077 Distributed Systems 62 2023-24 VII KKC 5071 Renewable Energy 63 2023-24 VII KKC 571A Artificial Intelligence Lab 64 2023-24 VII KKC 5751A Artificial Intelligence Lab 65 2023-24 VII KKC 5751 Distributed Systems Lab 66 2023-24 VII KKC 5753 Project/Internship Assessment 67 2023-24 VII KKT 5753 Project 68 2023-24 VII KKT 801 Burl Development: Administration & Planning 69 2023-24 VIII KK 06094 Open Elective - III 70 2023-24 VIII KK 5851 Project	56	2023-24	VI	KCS 652	Web Technology Lab
58 2023-24 VI KKC 602 Indian Tradition, Culture & Society 59 2023-24 VII KHU 702 Project Management & Entrepreneurship 60 2023-24 VII KCS 071 Artificial Intelligence 61 2023-24 VII KCS 071 Artificial Intelligence 62 2023-24 VII KCS 071 Distributed Systems 63 2023-24 VII KCS 713 Cloud Computing 64 2023-24 VII KCS 713 Cloud Computing 65 2023-24 VII KCS 714 Artificial Intelligence Lab 66 2023-24 VII KCS 751A Distributed Systems Lab 66 2023-24 VII KCS 753 Project/Internship Assessment 67 2023-24 VII KCS 753 Project 68 2023-24 VIII KHU 801 Rural Development: Administration & Planning 69 2023-24 VIII KN06034 Open Elective - III 70 2023-24	57	2023-24	VI	KCS 653	Computer Networks Lab
59 2023-24 VII KHU 702 Project Management & Entrepreneurship 60 2023-24 VII KCS 071 Artificial Intelligence 61 2023-24 VII KCS 071 Distributed Systems 62 2023-24 VII KCS 071 Distributed Systems 63 2023-24 VII KCS 071 Gloud Computing 64 2023-24 VII KCS 713 Gloud Computing 64 2023-24 VII KCS 751A Artificial Intelligence Lab 65 2023-24 VII KCS 751A Distributed Systems Lab 66 2023-24 VII KCS 752 Mini Project/Internship Assessment 67 2023-24 VII KCS 753 Project 68 2023-24 VIII KKU 801 Rural Development: Administration & Planning 69 2023-24 VIII KKD 6034 Open Elective - III 70 2023-24 VIII KKD 6034 Open Elective - IV 71 2023-24 VIII <td>58</td> <td>2023-24</td> <td>VI</td> <td>KNC 602</td> <td>Indian Tradition , Culture & Society</td>	58	2023-24	VI	KNC 602	Indian Tradition , Culture & Society
60 2023-24 VII KCS 071 Artificial Intelligence 61 2023-24 VII KCS 077 Distributed Systems 62 2023-24 VII KCS 713 Cloud Computing 63 2023-24 VII KCS 713 Cloud Computing 64 2023-24 VII KCS 751 Artificial Intelligence Lab 65 2023-24 VII KCS 751A Artificial Intelligence Lab 66 2023-24 VII KCS 751A Artificial Intelligence Lab 67 2023-24 VII KCS 752 Mini Project/Internship Assessment 68 2023-24 VII KCS 753 Project 68 2023-24 VII KCB 753 Project 69 2023-24 VIII KCB 803 Open Elective - III 69 2023-24 VIII KCB 803 Open Elective - III 60 2023-24 VIII KCB 804 Open Elective - III 70 2023-24 VIII KCB 804 Open	59	2023-24	VII	KHU 702	Project Management & Entrepreneurship
61 2023-24 VII KCS 077 Distributed Systems 62 2023-24 VII KCS 713 Cloud Computing 63 2023-24 VII KCB 074 Renewable Energy 64 2023-24 VII KCS 751A Artificial Intelligence Lab 65 2023-24 VII KCS 751A Distributed Systems Lab 66 2023-24 VII KCS 751A Distributed Systems Lab 67 2023-24 VII KCS 753A Project 68 2023-24 VIII KCH 801 Rural Development: Administration & Planning 69 2023-24 VIII KCE 053A Open Elective - III 70 2023-24 VIII KCE 053A Open Elective - III 71 2023-24 VIII KCE 053A Open Elective - III	60	2023-24	VII	KCS 071	Artificial Intelligence
62 2023-24 VII KCS 713 Cloud Computing 63 2023-24 VII KCE 074 Renewable Energy 64 2023-24 VII KCS 751A Artificial Intelligence Lab 65 2023-24 VII KCS 751A Artificial Intelligence Lab 66 2023-24 VII KCS 752 Mini Project/Intenship Assessment 67 2023-24 VII KCS 753 Project 68 2023-24 VIII KCH 801 Rural Development: Administration & Planning 69 2023-24 VIII KCE 853 Open Elective - III 70 2023-24 VIII KCE 851 Open Elective - IV	61	2023-24	VII	KCS 077	Distributed Systems
63 2023-24 VII KCE 074 Renewable Energy 64 2023-24 VII KCS 751A Artificial Intelligence Lab 65 2023-24 VII KCS 751A Distributed Systems Lab 66 2023-24 VII KCS 752 Mini Project/Internship Assessment 67 2023-24 VII KCS 753 Project 68 2023-24 VIII KHU 801 Bural Development: Administration & Planning 69 2023-24 VIII KK0603A Open Elective - III 70 2023-24 VIII KK0509A Open Elective - IV 71 2023-24 VIII KK0583 Project	62	2023-24	VII	KCS 713	Cloud Computing
64 2023-24 VII KCS 751A Artificial Intelligence Lab 65 2023-24 VII KCS 751A Distributed Systems Lab 66 2023-24 VII KCS 752 Mini Project/Internship Assessment 67 2023-24 VII KCS 753 Project 68 2023-24 VII KHU 801 Rural Development: Administration & Planning 69 2023-24 VIII KK 06094 Open Elective - III 70 2023-24 VIII KCS 851 Project	63	2023-24	VII	KOE 074	Renewable Energy
65 2023-24 VII KCS 751A Distributed Systems Lab 66 2023-24 VII KCS 752 Mini Project/Internship Assessment 67 2023-24 VII KCS 753 Project 68 2023-24 VII KCS 753 Project 69 2023-24 VIII KHU 801 Rural Development: Administration & Planning 69 2023-24 VIII KCD833 Open Elective - III 70 2023-24 VIII KCD944 Open Elective - IV 71 2023-24 VIII KCS 851 Project	64	2023-24	VII	KCS 751A	Artificial Intelligence Lab
66 2023-24 VII KCS 752 Mini Project/Internship Assessment 67 2023-24 VII KCS 753 Project 68 2023-24 VIII KKH 0801 Rural Development: Administration & Planning 69 2023-24 VIII KKH 0801 Open Elective - III 70 2023-24 VIII KK0 6094 Open Elective - IV 71 2023-24 VIII KK2 851 Project	65	2023-24	VII	KCS 751A	Distributed Systems Lab
67 2023-24 VII KCS 753 Project 68 2023-24 VIII KHU 801 Rural Development: Administration & Planning 69 2023-24 VIII KKE083 Open Elective - III 70 2023-24 VIII KKE094 Open Elective - IV 71 2023-24 VIII KKE 851 Project	66	2023-24	VII	KCS 752	Mini Project/Internship Assessment
68 2023-24 VIII KHU 801 Rural Development: Administration & Planning 69 2023-24 VIII KKE083 Open Elective - III 70 2023-24 VIII KKE094 Open Elective - III 71 2023-24 VIII KKE 851 Project	67	2023-24	VII	KCS 753	Project
69 2023-24 VIII KOE083 Open Elective - III 70 2023-24 VIII KOE094 Open Elective - IV 71 2023-24 VIII KCS 851 Project	68	2023-24	VIII	KHU 801	Rural Development: Administration & Planning
70 2023-24 VIII KOE094 Open Elective - IV 71 2023-24 VIII KCS 851 Project	69	2023-24	VIII	KOE083	Open Elective - III
71 2023-24 VIII KCS 851 Project	70	2023-24	VIII	KOE094	Open Elective - IV
	71	2023-24	VIII	KCS 851	Project

				Statements of Course Outcomes (COs) and Mapping with Program Outco BKL # K1 – Remember, K2 – Understand, K3 -	mes (POs) - Apply, K4	and Progra – Analyze,	m <u>Specific</u> K5 – Evalı	: Outcomes uate, K6 – C	<u>s (PSOs) : Do</u> Create	ept. of CS	E: 2023	-24								
S. No.	Sub Code	Sem	COx	Statement of Course Outcomes (COs)	Kx	P0 1	PO 2	PO 3	PO 4	PO 5	PO 6	P0 7	PO 8	РО 9	PO 10	P0 11	PO 12	PSO 1	PSO 2	PSO 3
				Statement of Course Outcomes (COs) Upon completion of topic concerned, students will be able to :	Blooms Knowledge Level	Engineering knowledge	Problem Analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The Engineer and Society	Environment & sustainability	Ethics	Individual and team work	Communications	Project management and finance	Life Long Learning			
			CO-1	Understand the concepts of quantum mechanics.	К2	3	2										3			
	-		CO-2	Derive the expression for EM-wave using Maxwells equations.	К3	3	3	2									3			
	1/ 20		CO-3	Describe the different phenomena of light and its applications.	K2	3	3										3	,		
1	S101	1/11	CO-4	Understand the concepts and applications of fiber optics and LASER.	K2	3	3	3									3			
	BA		CO-5	Understand the properties and applications of superconducting materials and nano materials.	К2	3	2	3									3			
				BAS101/ 201		3.00	2.60	2.67									3.00			
			CO-1	Make use of optical methods to determine the properties of light.	K2	3	2						2	3			2			
	-		CO-2	Assess the properties of semi conductor using electrical methods.	K3	2		2					2	3			2			
	1/ 25		CO-3		K3	3	-			-			2	3			2	·		
2	3AS15	1/11	CO-4	Examine the Stefan's law using electrical method. Intrepret variation of magnetic field for a current carrying circular coil and ferro magnetic	K2 K3	2	2	2					2							
	_			materials.		,		-					-							
				BAS151/ 251 (Engg. Physics Lab)		2.60	2.00	2.00					2.00	3.00			2.00			
			CO-1	Understand atomic and molecular structure, chemistry of advanced Materials and green chemistry.	К2	3											2			
	~		CO-2	Apply spectroscopic techniques and stereochemistry to identify the compounds, elements etc.	КЗ	3	2													
3	102/20	1/11	CO-3	Apply concepts of electrochemistry, batteries, corrosion and chemistry of engineering Materials like cement.	КЗ	3	2										2			
	BAS		CO-4	Apply concepts of impurities & hardness of water and boiler troubles used in industry & to analyse coal for its calorific values.	К3	3	2	2			2	2					2			
			CO-5	Understand polymers, polymerization, polymer blends, polymer composites and organometallic compounds.	K2	3					2	2					2			
				BAS102/ 202		3.00	2.00	2.00			2.00	2.00					2.00			
			CO-1	Perform experiments with different analytical instruments for chemical properties.	К3	2					2	2		2			2			
			CO-2	Compare molecular / system properties such as surface tension, viscosity with water.	К3	2												,		
	/ 25		CO-3	Measure alkalinity, hardness and chloride content of water.	К2	3	2	2			2	2		2			2			
4	S152	1/11	CO-4	Determine the iron content and available chlorine in given sample.	К3	2						2								
	BA		CO-5	Know the fundamental concepts of the preparation of phenol formaldenyde & urea formaldehyde resin	K2	2	2				2	2					2			
				BAS152/ 252 (Engg. Chemistry Lab)		2.20	2.00	2.00			2.00	2.00		2.00			2.00			
			CO-1	Apply the concept of matrices for solving linear simultaneous equations	К3	3	3	3									3			
			CO-2	derivative.	К3	3	3	3									3			
	8		CO-3	Apply partial differentiation for evaluating extreme values, expansion of function and Jacobian, approximation of errors.	К3	3	3	3									3			
5	BAS1	Т	CO-4	Apply the methods of multiple integral and concept of beta and gamma functions for finding area, volume and mass	КЗ	3	3	3									3			
			CO-5	Apply the concept of vector for evaluating directional derivatives, line, surface and volume integrals	К3	3	3	3									3			
				BAS103		3.00	3.00	3.00									3.00			
-		<u> </u>	CO-1	Translate the algorithms to programs & perform its execution in C language.	КЗ	3											3			
			CO-2	Implement conditional branching, instructions along with operators.	К3	3	3	3									3			
	/201		CO-3	Use looping control instructions, arrays and structures to develop programs.	К3	3	3	3									3			
6	3101	1/11	CO-4	Decompose a problem into functions and synthesize a complete program.	К3	3	3	3									3			
	ß		CO-5	Litilize pointer, file handling, dynamic memory allocation to solve problems	К3	3	3	3		<u> </u>							3			
				BCS101/201		3.00	3.00	3.00									3.00			
-	<u> </u>	<u> </u>	CO 1		¥2	3.00	3.00	3.00									3.00			
	1	I	0.1	Solve simple problems based on arithmetic expressions using operators.	N.3	2		4	1	1										

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	-		CO-2	Implement conditional branching instructions to develop programs.	К3	3	3	3											
_	1/ 25		CO-3	Use looping control instructions and functions to solve complex problems	К3	3	3	3								3	1	1	
7	S15	VII	CO-4	Design solutions by using arrays and structures to develop programs	К3	3	3	3								3		ł	
	B		CO-5	Utilize pointer, file handling, dynamic memory allocation to solve problems.	K3	3	3	3								3		ł	
				BCS151/251		2.80	2.80	2.80								3.00			
			CO-1	Apply Kirchhoff's laws in solving DC Circuits.	К3	3	3	3								2			
	-		CO-2	Understand the steady state behaviour of single phase and three phase AC circuits.	K2	3	3	3								2		1	
	1/ 20		CO-3	efficiency.	K2	3	2	3								2	1		
8	E10	VII	CO-4	Elaborate the working principle of AC and DC machines with their applications.	K2	3	2									2			
	8		CO-5	Explain the working of low voltage electrical installation equipment.	K2	3	2									3			
				BEE101/ 201		3.00	2.40	3.00								2.20			
			CO-1	PERFORM EXPERIMENT ILLUSTRATING B-H CURVE OF MAGNETIC MATERIALS.	К2	2	2	2	2								⊢	⊢−−−	
	251		CO-2	APPLY KVL/KCL AND NETWORK THEOREMS IN DC CIRCUITS.	К3	2	2	2	2		2					2			
9	51/ 3	1/11	CO-3	DEMONSTRATE THE BEHAVIOUR OF SINGLE PHASE AND THREE PHASE AC CIRCUITS.	КЗ	3	2	2	2		2					 2	⊢	⊢−−−∔	
	EI I		CO-4	CALCULATE EFFICIENCY OF TRANSFORMER AND ELECTRICAL MACHINES.	K3	3	2	2	2		2					2			
	-		0-5	DETENDINE ENERGY CONSUMPTION (KWH) USING SINGLE PHASE INDUCTION TYPE ENERGY METER.	K3	2 60	2 00	2 00	2 00		2.00					 2 00			
			CO 1		K 2	2.00	2.00	2.00	2.00		2.00				2	2.00	—	-	
			0.1	Apply the concept of P-N junction and devices in Electronic circuits.	K3	3		2							2	 2	 		
	201		0.3		K2	2		2								2		it	
10	101/	1/11	CO-4	Perform number systems conversions, binary arithmetic and minimize logic functions	K3	3		-								2		┌───┼	
	BEC		CO-5	Describe the fundamentals of communication technologies	K2	2									2	-		·	
				BEC101/201		2.60		2.00							2.00	2.00			
-			CO-1	Demon strate the active & Passive components PCRs & lab instruments	K2	2.00		2.00						2	2.00	2.00	—	-	
			CO-2	Test the conditions of truth tables for logic gates	K2	3	3							2	2	2		·	
	251		0.3	Examine the functioning of diade application circuite	K2	3	3	3						2	2	-		ł	
11	:151/	1/11	CO-3	Examine the functioning of clobe application circuits.	K2	2	3	2						2	2	2		ł	
	BEC		CO F	Demonstrate the functioning of OP-AMP based circuits.	K2	3	3	3						2	2	2			
			0-5	BEC151/251 (Basic Electronics Engr Lab)	KZ.	3 00	3 00	3 00						2 00	2 00	2 00			
			CO 1		K2	2	2	0.00			2			2.00	2.00	2.00		-	
			0-1	Apply the concept of force resolution and stress and strain to solve basic problems.	K3	3	Z				2					 2	— —	┝───┼	
			CO-2	hybrid vehicles.	K2	3	2				2					2	1		
12	01/ 201	1/11	CO-3	Explain the construction and working of refrigerator, heat pump and air conditioner.	К2	3	2				2					2			
	ME 1										2						1	1	
	8		CO-4	Understand fluid properties, conservation laws and hydraulic machinery used in real life.	К2	3	2				2					2	•		
			CO-4	Understand fluid properties, conservation laws and hydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with	K2	3	2			2	2					2	┞──┤		
			CO-4 CO-5	Understand fluid properties, conservation laws and hydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application.	К2 К2	3 3	2			2	2					2 2			
			CO-4 CO-5	Understand fluid properties, conservation laws and hydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application. BME101/201	К2 К2	3 3 3.00	2 2 2.00			2 2.00	2 2 2.00					2 2 2.00			
\vdash			CO-4 CO-5 CO-1	Understand fluid properties, conservation laws and nydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application. BME101/201 Use various engineering materials, tools, machines and measuring equipments.	К2 К2 К3	3 3 3.00 2	2 2 2.00			2	2 2 2.00 2		2	2		2 2 2.00 2			
\mid	5		CO-4 CO-5 CO-1 CO-2	Understand fluid properties, conservation laws and nydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application. BME101/201 Use various engineering materials, tools, machines and measuring equipments. Perform machine operations in lathe and CNC machine.	K2 K2 K3 K3	3 3 3.00 2 3	2 2 2.00			2 2.00 2	2 2.00 2 2		2 2	2		2 2 2.00 2 2 2			
	1/251		CO-4 CO-5 CO-1 CO-2 CO-3	Understand fluid properties, conservation laws and nydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application. BME101/201 Use various engineering materials, tools, machines and measuring equipments. Perform machine operations in lathe and CNC machine. Perform manufacturing operations on components in fitting and carpentry shop.	K2 K2 K3 K3 K3	3 3 3.00 2 3 2 2	2 2 2.00			2 2.00 2	2 2.00 2 2 2		2 2 2 2	2 3 2		2 2.00 2 2 2 2			
13	VS151/251	VII	CO-4 CO-5 CO-1 CO-2 CO-3 CO-4	Understand fluid properties, conservation laws and nydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application. BME101/201 Use various engineering materials, tools, machines and measuring equipments. Perform machine operations in lathe and CNC machine. Perform manufacturing operations on components in fitting and carpentry shop. Perform operations in welding, moulding and casting	K2 K2 K3 K3 K3 K3	3 3 3.00 2 3 2 3 3	2 2 2.00			2 2.00 2	2 2.00 2 2 2 2 2 2	2	2 2 2 2 2	2 3 2 2		2 2.00 2 2 2 2 2 2 2			
13	BWS151/251	VII	CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5	Understand fluid properties, conservation laws and nydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application. BME101/201 Use various engineering materials, tools, machines and measuring equipments. Perform machine operations in lathe and CNC machine. Perform manufacturing operations on components in fitting and carpentry shop. Perform operations in welding, moulding and casting Fabricate a job by 3D printing manufacturing technique	K2 K2 K3 K3 K3 K3 K3 K3	3 3 3.00 2 3 2 3 3 2	2 2 2.00			2 2.00 2 2	2 2.00 2 2 2 2 2 2 2 2 2 2	2	2 2 2 2 2 2 2	2 3 2 2 3		2 2.00 2 2 2 2 2 2 2 2 2			
13	BWS151/251	VII	CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5	Understand fluid properties, conservation laws and nydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application. BME101/201 Use various engineering materials, tools, machines and measuring equipments. Perform machine operations in lathe and CNC machine. Perform manufacturing operations on components in fitting and carpentry shop. Perform operations in welding, moulding and casting Fabricate a job by 3D printing manufacturing technique. BWS151/251	K2 K2 K3 K3 K3 K3 K3 K3	3 3.00 2 3 2 3 2 3 2 2 2.40	2 2.00			2 2.00 2 2 2 2 2,00	2 2.00 2 2 2 2 2 2 2 2 2 2 2 00	2	2 2 2 2 2 2 2 2 2 2	2 3 2 2 3 3		2 2.00 2 2 2 2 2 2 2 2 2.00			
13	BWS151/251	VII	CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1	Understand fluid properties, conservation laws and nydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application. BME101/201 Use various engineering materials, tools, machines and measuring equipments. Perform machine operations in lathe and CNC machine. Perform manufacturing operations on components in fitting and carpentry shop. Perform operations in welding, moulding and casting Fabricate a job y3D printing manufacturing technique. BWS151/251 Use scales and draw projections of objects	K2 K2 K3 K3 K3 K3 K3 K3 K3 K3 K3 K3 K2	3 3.00 2 3 2 3 2 2 2.40 3	2 2.00			2 2.00 2 2 2 2 2.00	2 2.00 2 2 2 2 2 2 2 2 2 2 2 2 2 00	2 2.00	2 2 2 2 2 2 2 2 2 2 2 00	2 3 2 2 3 3 2.40	2	2 2.00 2 2 2 2 2 2 2 2 2 2 2.00			
13	BWS151/251		CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-1	Understand fluid properties, conservation laws and nydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application. BME101/201 Use various engineering materials, tools, machines and measuring equipments. Perform machine operations in lathe and CNC machine. Perform manufacturing operations on components in fitting and carpentry shop. Perform operations in welding, moulding and casting Fabricate a job by 3D printing manufacturing technique. BWS151/251 Use scales and draw projections of objects. Evaluation of the incoming and the incoming and the scales and draw projections of the scales and the scale a	K2 K2 K3 K3 K3 K3 K3 K3 K3 K2 K2	3 3.00 2 3 2 3 2 2 2.40 3 3 2	2 2 2.00			2 2.00 2 2.00	2 2.00 2 2 2 2 2 2 2 2 2 2 2 00	2	2 2 2 2 2 2 2 2 2.00	2 3 2 2 3 3 2.40	2	2 2.00 2 2 2 2 2 2 2 2 2 2.00			
13	/ 251 BWS151/ 251	VII	CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-2 CO-1 CO-2 CO-2	Understand fluid properties, conservation laws and nydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application. BME101/201 Use various engineering materials, tools, machines and measuring equipments. Perform machine operations in lathe and CNC machine. Perform manufacturing operations on components in fitting and carpentry shop. Perform operations in welding, moulding and casting Fabricate a job by 3D printing manufacturing technique. BWS151/251 Use scales and draw projections of objects. Explain views of solids and their sectional surfaces.	K2 K2 K3 K3 K3 K3 K3 K3 K2 K2 K2	3 3.00 2 3 2 3 2 3 2 2.40 3 3 3 2	2 2 2.00			2 2.00 2 2.00	2 2.00 2 2 2 2 2 2 2 2 2 2 00	2	2 2 2 2 2 2 2 2.00	2 3 2 2 3 2.40	2 2 2	2 2.00 2 2 2 2 2 2 2.00			
13	E151/ 251 BWS151/ 251	VII	CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-2 CO-3 CO-3	Understand fluid properties, conservation laws and nydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application. BME101/201 Use various engineering materials, tools, machines and measuring equipments. Perform machine operations in lathe and CNC machine. Perform manufacturing operations on components in fitting and carpentry shop. Perform operations in welding, moulding and casting Fabricate a job by 3D printing manufacturing technique. BWS151/251 Use scales and draw projections of objects. Explain views of solids and their sectional surfaces. Analyze and draw isometric projections of objects.	K2 K2 K3 K3 K3 K3 K3 K3 K3 K2 K2 K2 K2 K3	3 3.00 2 3 2 3 2 2 3 2 2.40 3 3 3 3 3 2	2 2 2.00			2 2.00 2 2.00 2.00	2 2.00 2 2 2 2 2 2 2.00	2 2.00	2 2 2 2 2 2 2 2 2 2 00	2 3 2 2 3 2.40	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2.00 2 2 2 2 2 2.00			
13	BCE151/ 251 BWS151/ 251	v11	CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-3 CO-4 CO-5	Understand fluid properties, conservation laws and nydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application. BME101/201 Use various engineering materials, tools, machines and measuring equipments. Perform machine operations in lathe and CNC machine. Perform manufacturing operations on components in fitting and carpentry shop. Perform operations in welding, moulding and casting Fabricate a job by 3D printing manufacturing technique. BWS151/251 Use scales and draw projections of objects. Explain views of solids and their sectional surfaces. Analyze and draw isometric projections of objects. Demonstrate orthographic representation of perspective views using modern tools. Apply AutoCAD software for creation of engineering drawing and models.	K2 K3 K3 K3 K3 K3 K3 K3 K3 K3 K2 K2 K3 K3	3 3.00 2 3 3 2 3 2 2 40 3 3 3 3 3 3 3 3 3 3	2 2 2.00	2		2 2.00 2 2.00 2.00	2 2.00 2 2 2 2 2 2 2 2 2 2 2 2 00	2 2.00	2 2 2 2 2 2 2 2.00	2 3 2 2 3 2.40 2.40	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2.00 2 2 2 2 2 2.00 2.00 0 			
13	BCE151/251 BWS151/251	V11	CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-2 CO-3 CO-4 CO-5	Understand fuid properties, conservation laws and nydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application. BME101/201 Use various engineering materials, tools, machines and measuring equipments. Perform machine operations in lathe and CNC machine. Perform manufacturing operations on components in fitting and carpentry shop. Perform operations in welding, moulding and casting Fabricate a job by 3D printing manufacturing technique. BWS151/251 Use scales and draw projections of objects. Explain views of solids and their sectional surfaces. Analyze and draw isometric projections of objects. Demonstrate orthographic representation of perspective views using modern tools. Apply AutoCAD software for creation of engineering drawing and models. BCE151/251	K2 K3 K3 K3 K3 K3 K3 K3 K2 K2 K2 K2 K3 K2 K2 K3	3 3.00 2 3 3 2 3 2 2 3 3 3 3 3 3 3 3 3 3 3 3	2 2 2.00 2.00 2.00	2 2 2.00		2 2.00 2 2 2.00 3 3 3.00	2 2.00 2 2 2 2 2 2.00	2	2 2 2 2 2 2 2 2.00	2 3 2 2 3 2.40 2.40 2 2 2 2.00	2 2 2 2 2 2 2 2 2 2 2 2	2 2.00 2 2 2 2 2.00 2.00 2.00 2.00 2.00			
13	BCE15// 251 BWS15// 251	V11	CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-4 CO-5 CO-1	Understand fuid properties, conservation laws and nydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application. BME101/201 Use various engineering materials, tools, machines and measuring equipments. Perform machine operations in lathe and CNC machine. Perform manufacturing operations on components in fitting and carpentry shop. Perform operations in welding, moulding and casting Fabricate a job by 3D printing manufacturing technique. BWS151/251 Use scales and draw projections of objects. Explain views of solids and their sectional surfaces. Analyze and draw isometric projections of objects. Demonstrate orthographic representation of perspective views using modern tools. Apply the mathematical concepts for solving differential equations.	K2 K3 K2 K3 K2 K3 K3 K3	3 3.00 2 3 3 2 3 2 2.40 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2 2.00 2 2 2 3	2 2 2.00 3		2 2.00 2 2.00 2.00 3 3.00	2 2.00 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2.00	2 2 2 2 2.00	2 3 2 2 3 2.40 2.40 2 2 2 2.00	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2 2 2 2 0 0 2 2 0 0 2 2 0 0 3 3			
13	BCE15// 251 BWS15// 251	v11	CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-5 CO-1 CO-2	Understand fuid properties, conservation laws and nydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application. BME101/201 Use various engineering materials, tools, machines and measuring equipments. Perform machine operations in lathe and CNC machine. Perform manufacturing operations on components in fitting and carpentry shop. Perform operations in welding, moulding and casting Fabricate a job by 3D printing manufacturing technique. BWS151/251 Use scales and draw projections of objects. Explain views of solids and their sectional surfaces. Analyze and draw isometric projections of objects. Demonstrate orthographic representation of perspective views using modern tools. Apply the mathematical concepts for solving differential equations. Apply the concept of Laplace Transform to solve differential equations .	K2 K3 K2 K3 K2 K3 K3 K3 K3	3 3.00 2 3 2 3 2 2.40 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2 2.00 2.00 2 2 2 2 2 0 3 3 3	2 2 2 2.00 3 3		2 2.00 2 2.00 3 3.00	2 2.000 2 2 2 2 2 2 2 2 2 2 0 0	2 2.00	2 2 2 2 2.00	2 3 2 2 3 2.40 2.40 2 2 2.00	2 2 2 2 2 2 2 2 2 2 2 2 00	2 2.00 2 2 2 2 2 2.00 2.00 3 3 3			
13	03 BCE151/251 BWS151/251	v11	CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-2 CO-3 CO-1 CO-2 CO-3	Understand fuid properties, conservation laws and nydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application. BME101/201 Use various engineering materials, tools, machines and measuring equipments. Perform machine operations in lathe and CNC machine. Perform manufacturing operations on components in fitting and carpentry shop. Perform operations in welding, moulding and casting Fabricate a job by 3D printing manufacturing technique. BWS151/251 Use scales and draw projections of objects. Explain views of solids and their sectional surfaces. Analyze and draw isometric projections of objects. Demonstrate orthographic representation of perspective views using modern tools. Apply the concept of Laplace Transform to solve differential equations. Apply the concept of Laplace Transform to solve differential equations. Apply the concept of convergence in sequence, series and expansion of the function by Fourier series.	K2 K3 K2 K3 K2 K3 K2 K3 K3 K3 K3 K3 K3	3 3.00 2 3 3 2 3 2 2.40 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2 2.00 2 2 2 2 2 2 2 3 3 3 3	2 2 2 2.00 3 3 3 3		2 2.00 2 2.00 3 3.00	2 2.00 2 2 2 2 2 2 2.00	2.00	2 2 2 2 2 2 2 2 2 2 00	2 3 2 2 3 2.40 2.40 2.00	2 2 2 2 2 2 2.00	2 2.000 2 2 2 2 2 2 2 2 2 2 0 0 2 2 0 0 3 3 3 3			
13	3AS203 BCE151/251 BWS151/251	- VII - VII - II	CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-1 CO-1 CO-1 CO-1 CO-1 CO-1 CO-1 CO-1 CO-2 CO-3 CO-1 CO-2 CO-3 CO-4	Understand fuid properties, conservation laws and nydraulic machinery used in real life. Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application. BME101/201 Use various engineering materials, tools, machines and measuring equipments. Perform machine operations in lathe and CNC machine. Perform manufacturing operations on components in fitting and carpentry shop. Perform operations in welding, moulding and casting Fabricate a job by 3D printing manufacturing technique. BWS151/251 Use scales and draw projections of objects. Explain views of solids and their sectional surfaces. Analyze and draw isometric projections of objects. Demonstrate orthographic representation of perspective views using modern tools. Apply the mathematical concepts for solving differential equations. Apply the concept of Laplace Transform to solve differential equations. Apply the working methods of complex functions to find analytic functions.	K2 K3 K3 K3 K3 K3 K3 K3 K3 K2 K3	3 3.00 2 3 3 2 2.40 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2 2.00 2 2 2 2 2 2 2 2 3 3 3 3 3 3	2 2 2.00 3 3 3 3 3		2 2.00 2 2.00 3 3.00	2 2.00 2 2 2 2 2 2 2 2 2 0 0	2.00	2 2 2 2 2 2 2.00 2.00	2 3 2 2 3 2.40 2.40	2 2 2 2 2 2 2 2.00	2 2.000 2 2 2 2 2 2 2 2 2 2 0 0 2 2 0 0 3 3 3 3			

1				BAS203		3.00	3.00	3.00									3.00			
			CO-1	To maintain mental and physical wellness upright.	К3						1.00		2.00							
			CO-2	To develop ability to cope with the stress arising in life.	К3						2.00		1.00					-		1
	51		CO-3	To create space in the curriculum to nurture the potential of the students in sports, games, voga, etc.	K3						2.00									
16	SVA2	П	CO-4	To take forward the previous course on the topic to the next advance level in terms of practice	110												2.00			
			0.5	To anke no ward the previous course on the topic to the next advance rever in terms of practice.	K3					1.00							2.00			
			CO-3	To emance specialization in the subject matter.	КЗ					1.00										
_	-			BVA251: Sports and Yoga						1.00	2.50		1.50				2.00			
			CO-1	Understand the concept of sentence formation and userulness of enriched vocabulary.	KZ K3				2		2		2		3		3			
	1205		CO-3	Read as well as write clear and well structured official and business documents.	K3			2			2		-	2	3		3			
17	S105	1/11	CO-4	Acquire the skills necessary to deliver impactful presentations.	К3											2	3			
	BA		CO-5	Equip themselves with work-place skills necessary to be a successful professional.	K3									2		3	3			1
				BAS105/205 (Soft skills)				2.00	2.00		2.00		2.00	2.00	3.00	2.50	3.00			
			CO-1	Make use of converstional skills for effective group talks and interviews.	K3									2	2		2			
			CO-2	Develop communication and presentation skills for technical papers/project reports/proposals in	К2										2		2			1
	255			seminars/conferences/workshops/theme presentations.																
18	55/2	1/11	CO-3	Build conversational skills for public/individual speaking /conferencing/role play/JAM /arguementation.	К2										2		2			1
	AS1		CO-4	Make use of comprehension skills based on reading and listening practical's on model audio	К3										2		2			
			CO-5	Execution social skills for a given work station.	K3										2		2			
				BASISS/255										2.00	2.00		2.00			
-			CO-1	Understand basic concents related to ecosystem. FIA and the need of sustainable development	K2						2	2	3	2.00	2.00		2.00			
			CO-2	Understand about natural resources and impacts of human actions on natural resources.	K2						2	3	2							
	204		CO-3	Develop critical thinking for environmental pollution and environmental protection.	К4						2	3	2							
19	04/	1/11	CO 4	Understand various surrant anvironmental issues and concerns of National and global importance	2						2	2	2	2						1
	BAS		004	onderstand various current environmental issues and concerns of ivational and global importance.	N2						•	,	-	-						L
	_		CO-5	Develop sensitive attitude to adopt sustainability as a practice in life, society and industry.	K3						2	3	3	2			2			
				BAS104/ 204							2.00	3.00	2.40	2.00			2.00			
			CO-1	Describe basic concepts related to partial differential equation, and solve certain simple linear and nonlinear equations.	К2	2	2										2			
			CO-2	Apply separation of variable and Fourier transforms to solve wave, heat, and Laplace equations.	K3	3	2										1	-		1
	33		CO-3	Compute moments, skewness, and kurtosis of a univariate data, and apply correlation and	K2	3		3	3	2							1			
20	AS 3	ш		regression in problems related to curve fitting.		-		-	-	_							_			
	8		CO-4	Identify use of a discrete or continuous distribution to manipulate probabilities of random variables.	K1		3	2	3								3			
			CO-5	quality control.	К2	3	2	2	3	2							3			
-				DAS 303 - MAINS IV		2.75	2.25	2.33	5.00	2.00							2.00			
			CO-1	Basic human aspirations and the program of its fulfillment and do a critical appraisal of current scenario in society regarding happiness and prosperity.	К2						3	3	3	2	2		3			
			CO-2	Apply the clarity of the content of value education toinitiate a process of dialog within themselves so as to know what they really want to be in their life and profession, and also to ensure humanity at all the four levels of living and lead an ethical life.	КЗ						3	3	3				3			
21	/E 301	ш	CO-3	To analyze about feelings in relationship in family, society and relevence of nature.	К4						3	3	3				3			
	B		CO-4	On completion of this course, the student will be able to get clarity of provision of harmony in nature and existence ; workout and evaluate their mutual fulfilling participation atall the four levels of living.	К5						3	3	3	2	2		3			
			CO-5	On completion of this course, the student will be able to get clarity of ethical and unethical practices in profession; develop their emotional, social and professional comppetence and start working out thestratevy to actualize a harmonious environment wherever they work.	КЗ						3	3	3				3			
				BVE 301 - UNIVERSAL HUMAN VALUES							3.00	3.00	3.00	2.00	2.00		3.00			
\vdash	1			To understand algorithm, complexity of algorithm and linear and nonlinear data structure.and																
			CO-1	implementation of array.	K2	3	2	2												
			CO-2	To understand and apply linked list and its applications.	К3	3	3	2	1									1		
	5			To implement the concept of stack and queues using array and linked list and use of stacks to solve																1
21	cs 3	ш	CO-3	various problems	К3	3	3	2										1		L
	ā		CO-4	To apply the concepts of searching, sorting and hashing.	КЗ	3	3	2										1	2.00	
			CO-5	To demonstrate the concepts of graphs and trees.	K3	2	2	2	1									1	2.00	
	1				NJ	2	3	4	-									±	2.00	

1	1			BCS 301 - DATA STRUCTURE		3.00	2.80	2.00	1.00								1	.00 2.	00	
			CO-1	Illustrate and interpret the basic structure, operation of the computer system and apply the basic concepts	V 2	2	1	1										4		
			CO-2	to its components. To Apply the basic logic for arithmetic & amp; logic unit design and summarize the floating & amp; fixed points arithmetic operations	K2	2	2	2										1		
22	S 302	ш	CO-3	To Understand the control unit techniques & microprogramming controls and compute different pipeline techniques.	К2	2	1	2										1		
	ă		CO-4	To Understand the hierarchical memory systems and correlate the cache and virtual memory.	КЗ	2	1	1										1		
			CO-5	Illustrate the diversity of communication to I/O devices with peripherals and interrupts.	К4	2	1	1										1		
				BCS 302 - COMPUTER ORGANIZATION & ARCHITECTURE	-	3.00	1.80	1.20	1.00								1	.00		
			CO-1	Describe basic concepts related to partial differential equation, and solve certain simple linear and nonlinear equations.	К2	3	2	1										3		3
			CO-2	Apply separation of variable and Fourier transforms to solve wave, heat, and Laplace equations.	К2	3	2	2												3
23	3 303	ш	CO-3	Compute moments, skewness, and kurtosis of a univariate data, and apply correlation and regression in problems related to curve fitting.	КЗ	3	2	2	1											3
	BC		CO-4	Use of a discrete or continuous distribution to manipulate probabilities of random variables.	кз	3	2	2	1									2		3
			CO-5	Apply hypothesis testing to draw statistical inferences, describe use of control charts in statistical quality control.	КЗ	3	2	2	1									3		3
				BCS 303 - DISCRETE STRUCTURES & THEORY OF LOGIC		3.00	2.00	1.80	1.00								2	.67		3.00
			CO-1	To Implement the Concept of Searching and Sorting	КЗ	3	3	3	1						1			3 2	2	2
	12		CO-2	Apply the concept of Stacks and Queues.	К3	3	3	3	1						1			3 2	2	2
24	CS 3	Ш	CO-3	To Implement the Linked Lists and Hashing Techniques.	К3	3	3	3	1						1			3 2	2	2
	â		CO-4	Apply the Concept of Trees and Graphs.	КЗ	3	3	3	1									3 2	2	2
				BCS 351 - DATA STRUCTURES LAB		3.00	3.00	3.00	1.00						1.00		3	.00 2.	00	2.00
			CO-1	To implement of the basic structure and operation of a digital circuits, implement adder circuits using		3	1	-	-	-	-	-	-	-	-	-	-	-	-	-
			CO-2	To understand the converter encur using basic gates.		2	2	3	-	-	-	-	-	-	-	-	-	1 ;	3	-
	23		CO-3	To design a BCD adder. 4-bit shifter and subtractor		2	1	3	-	-	-	-	-	-	•	-	-	- ;	3	-
2	BCS 3	Ш	CO-4	To verification of the excitation table of various Flip Flops using logic gates.		2	3	3	-	-	-	-	-	-	-	-	-	3	-	3
			CO-5	To understand the various circuits for ALU, data path and control units.		2	1	3	-	-	-	-	-	-	-	-	-	- ;	3	-
				BCS 352 - COMPUTER ORGANIZATION & ARCHITECTURE LAB		2.20	1.60	3.00												3.00
			CO-1	Implement the Static Page Web Designs using HTML	КЗ	3	3	3										2		2
	8		CO-2	Design dynamic web pages using Cascading Style Sheets.	К3	3	3	3	2	1								2		2
26	CS 3	ш	CO-3	Implement the features of Bootstrap	КЗ		з	3		1										
	•		CO-4	Implement the concepts of JavaScript in the designs of Web pages.	КЗ		3	3		2								2		2
				BCS 353 - WEB DESIGNING WORKSHOP		3.00	3.00	3.00	2.00	1.33							2	.00		2.00
			CO-1	Understand the basic concepts of cybersecurity and cybercrimes.	К2	2	1					2						1		
	-		CO-2	Understand the cyber crimes attacks in mobile and wireless devices .	К2	2	2						2					2	2	
27	003	Ш	CO-3	Understand the tools and methods used in cyber crime	K2	2	2		3										1	
	ă		CO 5	Understand the coherecurity policies and other law	KZ	2	2		1									•		1
			CO-3	BCC 201 - CVBERSECULITY	K4	2	1.80		1	#DIV/01							1	2 50 1	50	1.00
-							1.80			#010/0:							_	.50 1.	30	1.00
			CO-1	Developing a technical artifact requiring new technical skills and effectively utilizing a new software tool to complete a task	КЗ	3	2	3	2					2	2					
			CO-2	Writing requirements documentation, Selecting appropriate technologies, identifying and creating appropriate test cases for systems.	К2	3	1	2	2					2	2					
2	C 351	ш	CO-3	Writing requirements documentation, Selecting appropriate technologies, identifying and creating appropriate test cases for systems.	К2	3	2	2	2					2	1			;	3	2
	BC		CO-4	Improving problem-solving, critical thinking skills and report writing.	КЗ	3	3	3	2	1				2	2			:	2	
			CO-5	Learning professional skills like exercising leadership, behaving professionally, behaving ethically, listening effectively, participating as a member of a team, developing appropriate workplace attitudes.	K1	2	2	2	1					2	2					2
1	1					,	,	,	· •					÷	-					

				BCC 351 - MINI PROJECT/INTERNSHIP ASSESSMENT		3.00	2.20	2.60	1.80	1.00				2.00	1.80				2.50	2.00
			CO-1	Apply concepts of Digital Binary System and implementation of Gates.	К3	2	1	1	1											
	410		CO-2 CO-3	Analyze and design of Combinational logic circuits. Analyze and design of Sequential logic circuits with their applications.	k4 k4	3	2	1	2											
29	20E	IV	CO-4	Implement the Design procedure of Synchronous & Asynchronous Sequential Circuits.	k3	2	2	1	1											
	-		CO-5	Apply the concept of Digital Logic Families with circuit implementation.	k3	3	2	2	2	1							2			
			CO-1	BUE 410 - Digital Electronics Students will be able to understand the nature and objective of Technical Communication relevant for the workplace as engineers.	К2	3	3	1.40	1.60	1.00				2	3		3			
			CO-2	Students will be able to develop an understanding of key concepts of writing, designing and speaking.	КЗ	3	3				3				3	2	3			
30	S 401	IV	CO-3	Students will be able to utilize the technical writing skills for the purposes of Technical Communication and its exposure in various dimensions.	К2	3	3								3		3			
	BA		CO-4	Students will be able to build up interpersonal communication traits that will make the transition from institute to workplace smoother and help them excel in their jobs.	К2	3							3	3	3		3			
			CO-5	Students will be able to apply technical communication to build their personal brand and handle crisis communication.	КЗ	3									3		3			
				BAS 401 - TECHNICAL COMMUNICATION		3.00	3.00						3.00	2.50	3.00	2.00	3.00			
			CO-1	To understand the operating system concepts and its layered architecture.	КЗ	2		2										2		
			CO-2	To understand the structure and organization of the file system and device management policies.	К2	3	2	1									2			J
31	CS 401	IV	CO-3	To apply various algorithms required for CPU and disk scheduling.	К2	3	2	2											2	3
	ā		CO-4	To apply process synchronization, concurrency control and deadlock in real life scenarios.	К3	3	2	1										2		I
			CO-5	To apply the memory management and page replacement strategies.	К1	3	2	1									2		2	2
				BCS 401 - OPERATING SYSTEMS		2.80	2.00	1.40									2.00	2.00	2.00	2.50
			CO-1	Understand formal language, translation logic, essentials of translation, alphabets, language representation and apply it to design Finite Automata and its variants.	КЗ	3	3	2	2	1	-	1	-	-	-	-	2			
	~		CO-2	Construct regular expression to present regular language and understand pumping lemma for RE.	КЗ	3	3	2	2	1	-	-	-	-	-	-	1			
32	S 40;	IV	CO-3	Design Context Free Grammars and learn to simplify the grammar.	К3	3	3	2	2	1	-	-	-	-	-	-	1			
	BC		CO-4	Construct Pushdown Automaton model for the Context Free Language	К4	3	3	3	2	1	-	-	-	-	-	-	1	L		l
			CO-5	Design Turing Machine for the different requirements outlined by theoretical computer science and Understand different classes of problems, classify and analyze them.	k5	3	3	3	3	1	-	-	-	-	-	-	2			l
				BCS 402 - THEORY OF AUTOMATA & FORMAL LANGUAGES		3.00	3.00	2.40	2.20								1.40			
			CO1	learn about essential programming structures in Java, including data types, variables, operators, control flow, arrays, and strings.	k2	3	2	2	1								2	2	2	2
			CO2	apply concepts of object-oriented programming, such as classes, objects, inheritance, polymorphism, encapsulation, and abstraction and develop Java programs efficiently.	k3	3	3	3	2	2							3	1	1	2
22	403	iv	CO3	learn to handle exceptions effectively, understanding various types of exceptions and will gain proficiency in input/output operations.	k3	2	2	1		3							2	2	1	2
33	BCS	IV.	CO4	apply multithreading concepts and Java's latest features such as functional interfaces, lambda expressions,																
			CO5	stream API etc.	k3	2	3	2	2	2							3	1	1	1
				services and web applications	k3	2	2	3		2							3	2	1	2
				BCS 403 - Objected Oriented Programming with JAVA		2.40	2.40	2.20	1.67	2.25							2.60	1.60	1.20	1.80
			CO-1	To Execute the basic commands in different Operating Systems and Unix system calls.	К3	3	3	3	2											L
	-		CO-2	To implement various CPU scheduling algorithms.	КЗ	3	3	3	3	1										
34	3CS 45	IV	CO-3	To implement File and Contiguous Allocation techniques , Fragmentations and Resource Allocation Graph	К3	3	3	3	3											
	_		CO-4	To implement solutions to Dead Lock, Producer -Consumer and Readers_ Writers using inter process communication Techniques and Semaphore.	КЗ	3	3	3	3	1										
L				BCS 451 - OPERATING SYSTEM LAB		3.00	3.00	3.00	2.75	1.00										
			CO-1	Write and execute Java Program using OOPS concepts on Different Platforms	К2	3	3	3	1									2		1
			CO-2	Implement error handling techniques using exceptions and multithreading.	К2	3	3	3											2	
35	CS 452	IV	CO-3	Create and Construct Java Programs using Packages and Industry Orientd Application using Spring Boot.	К2	3	3	3	1									3		2

1	8		CO-4	Implement Test RESTful web services and Test Frontend web appllication with Spring Boot	K 2										1		,	4
				BCS 452 - OBJECT ORIENTED PROGRAMMING WITH JAVA	KZ	3 3.00	3.00	3 3.00	1.00							2.50	2.50	1.33
			CO-1	Analysis of Packet using Wire Shark	КЗ	3	3	2	1							3		
			CO-2	Analyse network traffic and detect suspicious activity.	К3	3	3	3	2								2	
2	423	IV	CO-3	Analyse captured traffic to do malware traffic analysis.	К3	3	3	3	1								2	1
	BCS	iv.	CO-4	Capture and Analyse the packets for password sniffing.	К3	3	2	2									1	
			CO-5	Analyse the captured packets for ARP Poisoning Attack.	К3	3	2	2										
_				BCS 453 - CYBER SECURITY WORKSHOP		3.00	2.60	2.40	1.33							3.00	1.67	1.00
			CO-1	apply fundamental Python programming concepts, including variables, basic operators, and Python block structures.	К2	2	1								1	2		
			CO-2	demonstrate proficiency in using conditional blocks, such as if-else statements, and implementing loop constructs like for and while loops for efficient program flow control.	КЗ	2	2	1							1	2		
	402	IV.	CO-3	manipulate complex data types in Python, including strings, lists, tuples, and dictionaries, utilizing built-in methods and operations.	к3	2	2	1		1					1	2		
3	BCC	IV	CO-4	implement file input/output operations in Python, including reading and writing files, understanding file functions, and manipulating file pointers.	V 2	2	2	1		1					1	2		
			CO-5	utilize Python packages such as matplotlib, numpy, and pandas to perform data visualization and analysis, and develop graphical user interface (GUI) applications using Tkinter.	КЗ	2	2	1		1					1	2		
				BCC 402 - PYTHON PROGRAMMING		2.00	1.80	1.00							1.00	2.00		
			CO-1	To maintain mental and physical wellness upright.	кз						1.00	2.00						
			CO-2	To develop ability to cope with the stress arising in life.	кз						2.00	1.00						
3	451	IV	CO-3	To create space in the curriculum to nurture the potential of the students in sports, games, yoga, etc.	кз						2.00							
	BVI		CO-4	To take forward the previous course on the topic to the next advance level in terms of practice.	кз										2.00			
			CO-5	To enhance specialization in the subject matter.	кз					1.00								
				BVE 451 - SPORTS & YOGA - II						1.00	1.60	1.50			2.00			
			CO-1	Understand the different issues involved in the design and implementation of database system.	КЗ	3	1									1		
			CO-2	Apply database queries in SQL, Relational algebra, tuple and domain calculus.	К2	3	1	2	1								2	
3	s 501	v	CO-3	Apply normalization techniques.	K2	3	3	2										2
	Ŷ		CO-4	Examine the concepts of transaction processing and distributed database.	кз	3	3	3									2.00	1
			CO-5	Compare the concurrency control protocols.	K1	3	3	2										
				KCS 501 - DATA BASE MANAGEMENT SYSTEMS		3.00	2.20	2.25	1.00							1.00	2.00	2.00
			CO-1	Acquire knowledge of different phases and passes.	К2	2	1			1						1	1	1
			CO-2	Undestand the parsers and its type.	К2	2	1	1		1						1	1	1
4	S 502	v	CO-3	Implement the compiler using syntax directed tree.	КЗ	2	1	1								1	1	1
	KC		CO-4	Acquire the knowledge about run time data structure.	К2	2	1									1	1	1
			CO-5	Understand the target machines run time environment.	К2	2	1			1						1	1	1
				KCS 502 - COMPILER DESIGN		2.00	1.00	1.00	#DIV/0!							1.00	1.00	1.00
			CO-1	Design algorithms, prove them correct, and analyze their asymptotic and absolute runtime and memory demands.	К2	3	3	2								1		1
			CO-2	To analyze the performance of algorithms, find an algorithm to solve the problem	K2	2	2	2	1							1		
4	CCS 503	v	CO-3	Able to undersand and apply Divide and Conquer and Greedy methods.	K3	3	3	2	1							-	1	
	×		CO-4	Apply primitive sorting, searching and optimization problems	кэ (У)	2	2	2	-								-	
			CO-5	Understand basic techniques for designing algorithms, including the techniques of recursion, divide and	K3	2	2	1								1		~
				conduct, and greedy.	R4		4	1	1	1					.	1		

				KCS 503 - DESIGN & ANALYSIS OF ALGORITHMS		3.00	2.60	1.80	1.00						1.00	1.00	1.50
			CO-1	Understand the principle of Web page design and about types of websites.	К2	3	2								1		
			CO-2	Visualize and Recognize the basic concept of HTML and application in web designing.	КЗ	3	2	1									
42	S 052	v	CO-3	Recognize and apply the elements of Creating Style Sheet (CSS).	К2	3	1	1							1		
	ŔĊ		CO-4	Understand the basic concept of Java Script and its application.	К1	3	2									1	
			CO-5	Introduce the basics concept of Web Hosting and apply the concept of SEO	К2	3	2							1	1		
				KCS 052 - WEB DESIGNING		3.00	1.80	1.00						1.00	1.00	1.00	
			CO-1	To understand the need for machine learning for various problem solving.	K2	2	2								1		
			CO-2	To understand a wide variety of algorithms and how to evaluate models generated from data.	K2	3	2								1		
	055		CO-3	To understand the latest trends in machine learning.	К3	3	2	2	1								1
43	KCS	v	CO-4	To design appropriate machine learning algorithms and apply the algorithms to a real-world problems.	КЗ	3	2									1	1
			CO-5	To optimize the models learned and report on the expected accuracy that can be achieved by applying the models.	К2	3	2								1		
				KCS 055 - MACHINE LEARNING TECHNIQUES		3.00	2.00	2.00	1.00						1.00	1.00	1.00
			CO-1	To apply database language commands to create & implement the database.	КЗ	3	3							3	3	2	2
			CO-2	To apply aggregare operators and SQL queries to retrieve records from the database.	К2	3	3	3	3					3	3	2	2
44	S551	v	CO-3	To apply the concepts of relational algebra, join and change it into SQL queries.	К2	3	3	3	2							2	
	¥		CO-4	To apply PL/SQL for processing a database.	КЗ	3	3	3	2	2					2	0	
			CO-5	To develop software based sql.	К1	3	3	3	2	2					2	0	
_				KCS551 - DATA BASE MANAGEMENT SYSTEMS LAB		3.00	3.00	3.00	2.25	2.00				3.00	2.50	1.20	2.00
			CO-1	To understand Lexical analyzer for if statement and Arithmetic expressions	К3	3	3							3	3	1	2
			CO-2	To implement DFA and NFA	К2	3	3	3	2		 -	2		2	2	2	3
45	S 552	v	CO-3	To implement Shift Reduce Parser, Operator Precedence Parser and Recursive Decent Parser	К2	3	3	2	2					2	1	3	3
	X		CO-4	To implement Code Generator and Code Optimization Techniques	К3	3	3	2	2	2				2	1	2	2
			CO-5	To develop a application based DFA	К1	3	3	2	2	2				2	1	2	2
-			CO 1	KCS 552 - COMPILER DESIGN LAB		3.00	3.00	2.25	2.00	2.00		2.00		2.20	1.60	2.00	2.40
			CO-2	Implement problems based on Divide and Conquer approach.	K3	3	3	,	2		-			 3	3	2	3
	223		CO-3	Implement problems based on using Greedy Approach.	1/2	,	,	,	2					-	-		
46	KCS	v	CO-4	Apply concepts of dynamic programming and Backtracking approach.	K2	3	3	3	2	,				3	3	2	3
			CO-5	To develop a application based on sorting.	K1	2	2	2	2	,				2	2	-	2
				KCS 553 - DESIGN & ANALYSIS OF ALGORITHMS LAB	KI	3.00	3.00	3.00	2.00	2.00				3.00	3.00	2.00	3.00
			CO-1	Identify and Explore the basic features and modalities about Indian Constitution	КЗ	3									2		
			CO-2	Differentiate and relate the functioning of Indian Parlimentary System at ethe center and state level	К4	3									3	\neg	
47	501	v	CO-3	Differentiate different aspects of Indian Legal System and its related bodies	К4	3	1								3		
4/	KNC	v	CO-4	Discover and apply different laws and regulations related to engineering practices.	КЗ	3	1								2		
			CO-5	Correlate role of Engineers with different organizations and governance models.	КЗ		3								3		
L				KNC 501 - Constitution of India, Law and Engineering		3.00	1.67								2.60		
			CO-1	Developing a technical artifact requiring new technical skills and effectively utilizing a new software tool to complete a task	КЗ	3.00	2.00	3.00	2.00			2.00	2.00	1.00			
			CO-2	Writing requirements documentation, Selecting appropriate technologies, identifying and creating appropriate test cases for systems.	К2	3.00	1.00	2.00	2.00			2.00	2.00	1.00			

4	554	v		Writing requirements documentation, Selecting appropriate technologies, identifying and creating		2.00	2.00	2.00	2.00					2.00	1 00				
	KCS	•	0-3	appropriate test cases for systems.	KZ	3.00	2.00	2.00	2.00					2.00	1.00	 _			
			CO-4	Learning professional skills like exercising leadership, behaving professionally, behaving ethically.	К3	3.00	3.00	3.00	2.00	1.00				2.00	2.00	1.00			
			CO-5	listening effectively, participating as a member of a team, developing appropriate workplace attitudes.	К1	3.00	3.00	3.00	1.00					2.00	2.00	1.00			
				KCS 554 - MINI PROJECT		3.00	2.20	2.60	1.80	1.00				2.00	1.80	1.00			
			CO-1	Understand the Software Engineering Concepts and Analyze Software Development Models.	K1,K2	3												1	
			CO-2	Design SRS and explain Software Quality Assurance policies with a quality framework.	K1,K3	3	2	1		1								1	
49	S 601	vi	CO-3	Design small software's and measure using software's metrics and techniques.	K2,K3	2	2	3										1	
	X		CO-4	Apply different testing strategy for Software Systems.	K3	2	2	2	1	1								1	
			CO-5	Use some Project Management Tools in applications with software techniques.	K5	2	1	1										1	
				KCS 601 - SOFTWARE ENGINEERING		2.40	1.75	1.75	1.00	1.00								1.00	
			CO-1	To understand the Basics Programming Concepts of java & apply web development Strategies.	К3	3	3	2									2		1
			CO-2	To design web pages using HTML, XML, CSS and JavaScript.	K2	3	3	2	2	1								2	
50	S 602	vi	CO-3	To understand networking concept & TCP/IP and implement Java APIs	K2	3	3	2	1								1		
	Ŷ		CO-4	To Build applications and manipulate web databases using JDBC	КЗ	3	3	2	1								3		
			CO-5	To design web applications using Servlets and JSP.	K1	3	3	2	1									1	
				KCS 602 - WEB TECHNOLOGY		3.00	3.00	2.00	1.25	1.00							2.00	1.50	1.00
			CO-1	To understand the fundamental concepts of data transmission and Physical Layer.	К3	3	3										1		
	_		CO-2	To explain the Data Link Layer's functions and protocols used at this layer.	K2	3	3	2									2		
5	CS 603	VI	CO-3	To implement various techniques and protocols used in Networks Layer and Routing Algorithms.	K2	3	3	3											1
	×		CO-4	To apply the Transport Layer Protocols	К3	3	3	1										1	2
			CO-5	To analyze the different protocols used at the Application Layer.	K1	3	3	2								_	2		
_	-	_		KCS 603 - COMPUTER NETWORKS		3.00	3.00	2.00									1.67	1.00	1.50
			CO-	Understand the fundamentals of Big data with analytic tools, Security & Compliances.	К2	3											2		1
			CO-2	Understand the Hadoop basics and implementation of map reduce functions.	К2	3	2	1										2	
52	S 061H	vi	co-:	Understand the concepts of HDFS & Hadoop environment with Java interfaces, Hadoop task scheduling, Data Compression and Integrity.	К2	3	1										1		1
	Š		CO-4	Explain Hadoop YARN, NoSQL, MongoDB, Spark & SCALA	К2	3												1	
			CO-	Understand Hadoop ECO Systems Framework, HIVE, PIG and Hbase with implementations.	K2	3	2	1									1		2
				KCS 061 - BIG DATA		1.20	1.40	1.80	2.00	1.80	1.60	1.40	1.00	1.80	1.50		2.20	1.60	2.20
			CO-1	Understand project planning, Objectives, Methodologies, Activities and Project evaluation.	K2	3	2												
			CO-2	Understand project life cycle, Process Models, Efforts and Cost estimation techniques.	K2	3	3	2		1							2		1
5	068	vi	CO-3	Organize and schedule project activities, Compute critical path and understand risk management.	К4	3	2	1									2	2	
	KOE		CO-4	Understand Project Management, Monitoring, Tracking, Controls, Analysis and Contracts.	K2	3	2										1		2
			CO-5	Understand and manage staffing in software projects with ethical and professional concerns.	K2	3						1					1		1
				KOE 068 - SOFTWARE PROJECT MANAGEMENT		3.00	2.25	1.50									1.50		1.33
			CO-I	To Demonstrate the contents of Software Requirement Specifications and state functional and non- functional requirements.	КЗ	3	3	2	1								2		
	1		<u> </u>	Identify different actors and use cases from a given problem statement and draw use case diagrams to		-	-	-	-							t	_		
	51			associate use cases with different types of relationships.	К2	3	3	3	2	1						\rightarrow	2	 	
54	(CS 6	VI	CO-3	Understand the basic concept of UML design and implementation of various UML diagrams. Understand the basic concepts of Entity-Relationship diagram and represent the relationship and	K2	3	3	3	2							-+		1	
	1		CO-4	cardinality with pictorial representation.	КЗ	3	3	3	1	1									1

1	1		CO 5	ose modern engineering tools for specification, design, implementation and testing of software.		1													ļ	1
			0-5		К1	3	3	3	2	2								2		
				KCS 651 - SOFTWARE ENGG LAB		3.00	3.00	2.80	1.60	1.33								2.00	1.00	1.00
			CO-1	Able to design static/dynamic web pages using HTML/DHTML/Jscript.	КЗ	3	3	2	1	1								1	ļ	1
			CO-2	Able to implement programs to illustrate XML schemas and DTD.	к2	3	3	3	1										1	
	652		CO-3	To describe various phases of SRS documents.	К2	3	3	3	1								1	2		
5.	KCS	VI	CO-4	Able to implement database applications using JDBC and ODBC.	¥2	2	2	2	1	1							1			1
			CO-5	Able to implement server site web application.	КЗ	3	3	2	1	1							1	2		2
				KCS 652 - WEB TECHNOLOGY LAB		3.00	3.00	2.60	1.00	1.00							1.00	1.67	1.00	1.33
			60.1	To understand the basic concepts of network devices and connectivity.																
			0-1		К2	3	3	3	1	1										1
			CO-2	Implement some important concepts of computer networks using C programming.	К3	3	3	3	1	1				2	1			2	ļ	
	653		CO-3	Implement in C: IPv4 addresses into binary and vice versa.	K2	2	2	2	1					2	1				2	
50	e KCS	VI	CO 4	Implement a client/conver chatting program using socket programming	KZ	3	3	, ,	-					2	-					
			0-4	implement a chentyserver chatting program asing socket programming.	К1	3	3	3						2	1					1
			CO-5	Design and configure a network using CISCO Packet Tracer and analyze network traffic using Wireshark Tool.	К2	3	3	3	2								1	2		2
				KCS 653 - COMPUTER NETWORKS LAB		3.00	3.00	3.00	1.25	1.00				2.00	1.00		1.00	2.00	2.00	1.33
			CO-1	Identify and Explore Society state and Polity in India	К2	3					1		1	1	1		1			
			CO-2	To Understand Indian Literature, Culture and Tradition	К3	3					1		1	1		2	1			
57	602	VI	CO-3	To Undestand the basis of Indian religion and Philisopy	К2	3	1				1	3	1		2		1			L
5	KNC	VI	CO-4	To Undestand the basis of Science, Management and Indian Knowledge System	К2	3	1				3	2	1	3	2	1	3		ļ	
			CO-5	Perspective of Cultural heritage and Performing Arts	КЗ		3	2	2	1	3	2	3	2		1	3			
				KNC 602 - INDIAN TRADITION CULTURE & SOCIETY		3.00	1.67	2.00	2.00	1.00	1.80	2.33	1.40	1.75	1.67	1.33	1.80			
			CO-1	Describe the key concepts and attributes that make a successful Entrepreneur	K2	1	2												2	
			CO-2	Illustrate the function of an entrepreneur in a successful, commercial application of innovation	1/2	,	1												-	1
	702		CO-3	Integrating the learning techniques for project planning and execution control.	1/2	,	1											-	<u> </u>	
58	KHU	VII	CO-4	Identify the financing process of the entrepreneurial business.	K3	3	1											1		
			CO F	Identify areas of our economy /society where social entrepreneurs work.	ĸs	5	-											-		
			0-5		К2	3	1												1	1
				KHU 702 - PROJECT MANAGEMENT & ENTREPRENEURSHIP		2.60	1.20											1.50	1.33	1.00
			CO-1	Understand the basics of the theory and practice of Artificial Intelligence as a discipline and about intelligence	К3	2	2											2		1
			CO-2	Understand search techniques and gaming theory.	K2	3	2	2										2	1	
	11		CO-3	The student will learn to apply knowledge representation techniques and problem solving strategies to o															ļ	
59	e los	VII			К2	3	2	2		1								1	1	
	×		CO-4	Student should be aware of techniques used for classification and clustering.	КЗ	3	1											2	1	
			CO-5	Student should aware of basics of pattern recognition and steps required for it.	К1	2												1	ļ	
				KCS 071 - ARTIFICIAL INTELLIGENCE		2.60	1.75	2.00		1.00								1.60	1.00	1.00
			CO-1	To provide hardware and software issues in modern distributed systems.	K3	3	2	2										1	1	1
			c0-2	To get knowledge in distributed architecture, naming, synchronization, consistency and replication,			_	-										-		
	11			fault tolerance, security, and distributed file systems.	K2	3	3	1										1	1	1
60		VII	CO-3	To analyze the current popular distributed systems such as peer-to-peer (PzP) systems will also be analy	К2	3	3	2										1	1	1
	-		CO-4	To know about Shared Memory Techniques and have Sufficient knowledge about file access	К3	3	3	1										1	1	1
			CO-5	Have knowledge of Synchronization and Deadlock.	К1	3	3	1										1	1	1
L	_			KCS 077 - DISTRIBUTED SYSTEMS		3.00	2.80	1.40										1.00	1.00	1.00
			CO-1	Describe architecture and underlying principles of cloud computing.	К2	1	2											1		
			CO-2	Explain need, types and tools of Virtualization for cloud.	К3	3	3												1	
	13		CO-3	Describe Services Oriented Architecture and various types of cloud services	К2	3	3												Ţ	1

e	KCS I	VII	CO-4	Explain Inter cloud resources management cloud storage services and their providers Assess security services and standards for cloud computing.	К1	3	3											2		
			CO-5	Analyze advanced cloud technologies.	К2	3	3	1											1	2
				KCS 713 - CLOUD COMPUTING		2.60	2.80	1.00										1.50	1.00	1.50
			CO-1	Understand about the different types of non-conventional energy resources and emphasize its importance.	К2	3	3													
			CO-2	Undestand the power of solar energy.	K2	3	2													
e	OE 074	VII	CO-3	Understand the Geothermal Energy, Fuel Cell and Magnateo Hydrodynamics Process of Energy Conversi	К2	3	2													
	ž		CO-4	Understand and apply Thermo-electric, Thermionic and Wind Power Plant.	КЗ	3	2	1												
			CO-5	Undestand the Bio-Mass, Ocean Thermal Energy and Tidal Energy.	К2	3	3													
		 		KOE 074 - RENEWABLE ENERGY	<u> </u>	3.00	2.40	1.00	#DIV/0!			#DIV/0!	#DIV/0!	#DIV/0!		i	####			
			CO-1	To learn different logic programming languages.	К2,КЗ	2	2													
			CO-2	To apply and analyse various problem solving techniques on artificial intelligent problems.	К2,КЗ	3	3	2	1											
6	5 751A	VII	CO-3	To acquire skill to identify the given problem and design the rule based systems.	K2.K3	3	3	2	1											1
	Ϋ́Υ.	Ī	CO-4	To develop better understanding to represent various real life problem domains using logic based techn	К2,КЗ	3	3	2	1											
		Ī	CO-5	To understand the working knowledge in Lisp and demonstrate that for solving the artificial intelligent p	K2,K3	3	3	2	1	1				2	2					
				KCS 751A - ARTIFICIAL INTELLIGENCE LAB		2.80	2.80	2.00	1.00	1.00				2.00	2.00					
			CO-1	To learn different logic programming languages.	к2,К3	2	2													
			CO-2	Design and implement Logical Clock and Vector Clock using Java or C .	к2,К3	3	3	2	1											
	751A	VII	CO-3	Design and implement Distributed Mutual Exclusion using Java or C.	к2,К3	3	3	2	1											
	¥ SSX	VII	CO-4	Design Distributed Chat Server, file transfer across a network and accessing methods of remote systems using network protocols and socket programs with the use of Java or C.	к2,К3	3	3	2	1											
		Ī	CO-5	Design and implement Balanced Sliding Window Protocol and CORBA mechanism using Java.	К2,К3	3	3	2	1	1				2	2					
				KCS 751A - DISTRIBUTED SYSTEMS LAB		2.80	2.80	2.00	1.00	1.00				2.00	2.00					
		_	CO-1	Developing a technical artifact requiring new technical skills and effectively utilizing a new software tool to complete a task	КЗ	3	2	3	2					2	2		1			
			CO-2	Writing requirements documentation, Selecting appropriate technologies, identifying and creating appropriate test cases for systems.	К2	3	1	2	2					2	2		1			
6	5 752	VII	CO-3	Writing requirements documentation, Selecting appropriate technologies, identifying and creating appropriate test cases for systems.	К2	3	2	2	2					2	1					
	X		CO-4	Improving problem-solving, critical thinking skills and report writing.	К3	3	3	3	2	1				2	2		1			
		_	CO-5	Learning professional skills like exercising leadership, behaving professionally, behaving ethically, listening effectively, participating as a member of a team, developing appropriate workplace attitudes.	К1	3	3	3	1					2	2		1			
┢	_			KCS 752 - MINI PROJECT/internship Assessment Suagest a product,research or application based project, it should be presented in clear and concise way.		3.00	2.20	2.60	1.80	1.00				2.00	1.80		1.00		_	
		_	CO-1	- ggan - p	К2	3	3	3	3	2	2			2	2		1			
			CO-2	ldentify and summarize the related work done earlier, analyse previous researchers' work and relate them to current project.	кз	3	3	3	2	1	2						2			
e	e KCS 753	VII	CO-3	Design and implement a project on through analysis and interpretation of data using various modern tools and techniques.	К2	3	3	3	3	2	1			2	2		1			
		Γ	CO-4	Present the project outlining, approach and expected results using good oral and written presentation skills.	К1	3	3	3	3	2	1			2	2		T		Ţ	
		ſ	CO-5	Manage record and compile work done throughout the project.	К2	3	3	3	2	2	1			2	2		1			
				KCS 753 - PROJECT		3.00	3.00	3.00	2.60	1.80	1.40			2.00	2.00		1.25			
			CO-1	The students who undergo this programme are able to understand the issues prevailing in rural areas	K2	3	2	2	3	3	2							1		1
		Ī	CO-2	Degree holders will be able to invent solutions for better rural development.	КЗ	3	3	2	3	3	3								2	

68	U 801	VIII	CO-3	There are ample of opportunities to the Master degree holder to get employment in the Dept. of rural development and panchyatraj of both State and central	К2	3	3	2	3	3	2								1
	KH		CO-4	The Students will understand the nature of Indian Rural Economy	К1	3	3	2	3	3	3							2	
			CO-5	The rural development programme makes students to understand the socio economic conditions of rural folk	К2	3	3	2	3	3	3						2		
				KHU 801 - Rural Development: Administration & Planning		3.00	2.80	2.00	3.00	3.00	2.60						1.50	2.00	1.00
			CO-1	Students will be able to describe the concept and role of Entrepreneurship and role of Small- Scale Industries in industrial development and government policies to support SSI	КЗ						2		2			3		3	
			CO-2	Students will be able to assess the project on various viability/feasibility aspects.	К2						2		2		3	3		3	
69	DE 083	VIII	CO-3	The students will be able to prepare the financial statement and project report for economic viability and decision-making to check project output and entrepreneurial project proposal	К2						2		2		3	3		3	
	ž		CO-4	Students will be able to carry out the project planning, monitoring and control	кз						2		2		3	3		3	
			CO-5	The students will have a clarity of laws concerning entrepreneurship in different forms of ownership and laws concerning employees in such organizations	К1						2		2			3		3	
				KOE 083 - Entrepreneurship Devlopment							2.00							3.00	
	KOE 094		CO-1	Explain the Evolution and Landscape of Digital Marketing.	К3	1	2	1										1	
			CO-2	Analyze the Social Media Marketing Strategy for Consumer Engagement	К2	3	3	1										2	
70		VIII	CO-3	Interpret the concepts of various Digital Promotion Strategies	К2	3	3	1											2
			CO-4	Evaluate the CRM and web analytics techniques	К3	3	3												
			CO-5	Use social media analytics and integrative media strategie	К1	3	3										2		1
				KOE 094 - Digital & Social Media Marketing		2.60	2.80	1.00									2.00	1.50	1.50
			CO-1	Suggest a product, research or application based project. It should be presented in clear and concise way.	К2	3				2	з		3	2	2	2	2	2	2
			CO-2	ldentify and summarize the related work done earlier, analyse previous researchers' work and relate them to current project.	КЗ	3	3							2	2			1	2
71	KCS 851	VIII	CO-3	Design and implement a project on through analysis and interpretation of data using various modern tools and techniques.	К2	3	3	2		3			3	2	2		2	3	3
			CO-4	Present the project outlining, approach and expected results using good oral and written presentation skills.	К1	3	3	2	2	3				2			1	3	2
			CO-5	Manage record and compile work done throughout the project.	К2	3	2	2		1			1	2				3	2
				KCS 851 - PROJECT		3.00	2.75	2.00	2.00	2.25	3.00		2.33	2.00	2.00	2.00	1.67	2.40	2.20

		Dept of CSE : 2023-24																	
S. No.	Session	Sem	Subject Code	Subject Name	P01	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2	PSO 3
					Engineering knowledge	Problem Analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The Engineer and Society	Environment & sustainability	Ethics	Individual and team work	Communications	Project management and finance	Life Long Learning			
1	2023-24	1/11	BAS101/201	Engg. Physics															
2	2023-24	1/11	BAS151/251	Engg. Physics Lab															
3	2023-24	1/11	BAS102/202	Engg. Chemistry															
4	2023-24	1/11	BAS152/252	Engg. Chemistry Lab															
5	2023-24	I	BAS103	Engg. Maths I															
6	2023-24	П	BAS203	Engg. Maths II															
7	2023-24	1/11	BEE101/201	Fundamental of Electrical Engg.															
8	2023-24	1/11	BEE151/251	Fundamental of Electrical Engg. Lab															
9	2023-24	1/11	BCS101/201	Programming for Problem Solving															
10	2023-24	1/11	BCS 151/251	Programming for Problem Solving Lab															
11	2023-24	1/11	BWS 151/251	Workshop Practices Lab															
12	2023-24	1/11	BCE151/251	Engg. Graphics and Design Lab															
13	2023-24	1/11	BEC101/201	Fundamental of Electronics Engineering															
14	2023-24	1/11	BEC151/251	Basic Electrical Engineering Lab															
15	2023-24	1/11	BME101/201	Fundamentals of Mechanical Engg.															
16	2023-24	П	BVA251	Sports and Yoga															
17	2023-24	1/11	BAS105/205	Soft Skills															
18	2023-24	1/11	BAS155/ 255	English Language Lab															
19	2023-24	1/11	BAS104/204	Environment and Ecology															
20	2023-24	Ш	BCS 301	Data Structure															
21	2023-24	Ш	BCS 302	Computer Organization & Architecture															
22	2023-24	Ш	BCS 303	Discrete Structures & Theory of Logic															
23	2023-24	Ш	BCS 351	Data Structures Using C Lab															
24	2023-24	Ш	BCS 352	Computer Organization Lab															
25	2023-24	Ш	BCC 351	Mini Project/Internship Assessment															
26	2023-24	Ш	BAS 303	Maths IV															
27	2023-24	Ш	BCC301	Cybersecurity															
28	2023-24	Ш	BVE301	Universal Human Values															
29	2023-24	III	BCS 353	Web Designing Workshop															
30	2023-24	IV	BAS 401	Technical Communication															
31	2023-24	IV	BCS 401	Operating System															
32	2023-24	IV	BCS 402	Theory of Automata & Formal Languages															
33	2023-24	IV	BCS 403	Object Oriented Programming with Java				ſ								Ι	Ι		Γ

Meerut Institute of Engineering and Technology, Meerut Compiled Record of Mapping of Course Outcomes (COs) with Program Outcomes (POs) and Program Specific Outcomes (PSOs)

34	2023-24	IV	BCS 451	Operating System Lab															
35	2023-24	IV	BCS 452	Object Oriented Programming with Java Lab															
36	2023-24	IV	BCC 402	Python Programming															
37	2023-24	IV	BOE 410	Digital Electronics (Science based open elect)															
38	2023-24	IV	BCS 453	Cybersecurity Workshop															
39	2023-24	IV	BVE451	Sports and Yoga															
40	2023-24	V	KCS551	Data Base Management Systems Lab															
41	2023-24	V	KCS 552	Compiler Design Lab															
42	2023-24	V	KCS 553	Design & Analysis of Algorithms Lab															
43	2023-24	V	KCS 052	Web Designing															
44	2023-24	V	KCS 055	Machine Learning Techniques															
45	2023-24	V	KCS 554	Mini Project															
46	2023-24	V	KCS 501	Data Base Management Systems															
47	2023-24	V	KCS 502	Compiler Design															
48	2023-24	V	KCS 503	Design & Analysis of Algorithms															
49	2023-24	V	KNC 501	Constitution of India, Law and Engg															
50	2023-24	VI	KCS 601	Software Engineering															
51	2023-24	VI	KCS 602	Web Technology															
52	2023-24	VI	KCS 603	Computer Networks															
53	2023-24	VI	KCS 061 H	Big Data															
54	2023-24	VI	KOE 068	Software Project Management															
55	2023-24	VI	KCS 651	Software Engg Lab															
56	2023-24	VI	KCS 652	Web Technology Lab															
57	2023-24	VI	KCS 653	Computer Networks Lab															
58	2023-24	VI	KNC 602	Indian Tradition , Culture & Science															
59	2023-24	VII	KHU 702	Project Management & Entrepreneurship															
60	2023-24	VII	KCS 071	Artificial Intelligence															
61	2023-24	VII	KCS 077	Distributed Systems															
62	2023-24	VII	KCS 713	Cloud Computing															
63	2023-24	VII	KOE 074	Renewable Energy															
64	2023-24	VII	KCS 751A	Artificial Intelligence Lab															
65	2023-24	VII	KCS 751A	Distributed Systems Lab															
66	2023-24	VII	KCS 752	Mini Project/Internship Assessment															
67	2023-24	VII	KCS 753	Project															
68	2023-24	VIII	KHU 801	Rural Development: Administration & Planning															
69	2023-24	VIII	KOE 083	Entrepreneurship Devlopment (Open elet-III)															
70	2023-24	VIII	KOE 094	Digital & Social Media Marketing (Open elect- IV)															
71	2023-24	VIII	KCS 851	Project															
	Overall			PO - TARGET	#####	#####	#####	#####	#####	#####	#DIV/0!	#####	#####	#DIV/0!	#####	#####	#####	#####	#####