Meerut Institute of Engineering and Technology, Meerut           Statements of Course Outcomes (COs) and Mapping with Program Outcomes (POs) and Program Specific Outcomes (PSOs) : Dept. of Information Technology : 2023-24. (Session-wise; First Year to Final Year) BKL # K1 – Remember. K2 – Understand. K3 – Apply, K4 – Analyze, K5 – Evaluate. K6 – Create																					
S. No.	Sub Code	Sem	COx	Statement of Course Outcomes (COs) Statement of Course Outcomes (COs) Upon completion of topic concerned, students will be able to :	Kx 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	PSO 1	PSO 2	PSO 3	PSO 4
			CO-1	Students will be able to UNDERSTAND the nature and objective of Technical Communication relevant for the work place as Engineers.	K2	1			0	1	2		3		3		3	2		2	
				Students will be able to ONDERSTAND the nature and objective of reclinical communication relevant for the work prace as Engineers. Students will be able to DEVELOP an understanding of key concepts of writing, designing and speaking.	K3	2	2	3		2					-		3	2	2	~	
1	BAS301	III SEM	CO-3	Students will be able to UTILIZE the technical writing skills for the purposes of Technical Communication and its exposure in various dimension	K2	3		1		2	3				3		3	2	2	3	
1	BA5501	III SEM	CO-4	Students will be able BUILD UP interpersonal communication traits that will make the transition from institution to workplace sm	K6	3	2	3		2		2			3		3	2	1	2	
			CO-5	Students will be able to APPLY technical communication to build their personal brand and handle crisis communication.	K2	3				2	3	-			3		3	2		2	
				Technical Communication		2.4	2	2.3		1.8	2.7	2	3		3		3	2	1.7	2.3	
				To understand algorithm, complexity of algorithm and linear and nonlinear data structure and implementation of array.	K2	3	1	1	1	2		<u> </u>		1		2	2	1	3	3	
			CO-2	To understand and apply linked list and its application.	K3	3	2	1	2	2				1		2	2	1	3	3	
2	BCS301	III SEM	CO-3 CO-4	To implement the concept of stack and queue using array and linked list and use of stack to solve various problems.	K3 K3	3	1	1	1	2	+			1		2	3	1	3	3	
				To apply the concepts of searching, sorting and hashing. To demonstrate the concepts of graphs and Tree .	K3 K2	2	1	1	2	2				1		2	3	1	3	3	
			0-5	To demonstrate the concepts of graphs and Tree . Data Structures	K2	2.8	1.4	1	1.4	2				1		2	2.6	1	3	3	_
			CO-1	Illustrate and interpret the basic structure, operation of the computer system and apply the basic concepts to its components. (K1, F	K2	1	1	1	1	1					1	1	3	1	1	2	
			CO-2	To Apply the basic logic for arithmetic & logic unit design and summarize the floating & fixed points arithmetic operations. (K2,	K2	2	1	2	2	3					3	2	2	2	3	2	
			CO-3	To understand the control unit techniques & micro programming controls and compute different pipeline techniques. (K3)	K2	3	3	1	3	3					3	3	3	2	3	3	
3	BCS302	III SEM	CO-4	To Understand the hierarchical memory systems and correlate the cache and virtual memory. (K2, K4)	K3	3	3	1	3	3					3	2	2	2	3	2	-
			CO-5	Illustrate the diversity of communication to I/O devices with peripherals and interrupts. (K2, K4)	K3	3	2	1	2	3					3	3	3	2	3	3	
				Computer Organization & Architectures		2.4	2	1.2	2.2	2.6					2.6	2.2	2.6	1.8	2.6	2.4	
				On completion of this course, the student will be able to Understand the fundamental Python syntax and be fluent in the use of Pyt	K2	2		2										2			
				On completion of this course, the student will be able to understand the proficiency in the handling of strings and functions.	K2	3		2	2								2	2			
4	BCC302	III SEM		On completion of this course, the student will be able to Understand the methods to create and manipulate Python programs by uti	K3	2		2			2						2	·'	2	3	
				On completion of this course, the student will be able to understand commonly used operations involving file systems and regular	K3	2	2	2	2		2						2	2	2	2	
			0-5	On completion of this course, the student will be able to understand that how to Implements built-in packages in python programs.  Python Programming	K3	2.4	2	3	2		2						2	2	2	2.5	_
			CO-1	Apply knowledge of set theory and relations to solve problems related to posets and lattices.	K1	3	1	2	3	1	1			1			1	2		21.0	
			CO-2	Apply knowledge of functions and Boolean algebras to solve problems foliated to posed and natices.	K3	1	1	-		1	-			1			1	2		2	
	BOOM		CO-3	Apply propositional caculus, predicates, and inference rules to solve problems of theory of logic.	K4	3	2	2		1				1			1	2			
5	BCS302	III SEM	CO-4	Explore knowledge of algebraic structures to solve advanced technological problems.	K3	3	3	3	2	1				1			1	2			
			CO-5	Illustrate the principles and concepts of graph theory for solving problems related to computer science.	K5	2	3	3		1				1			1	3	2		
				Discrete Mathematics		2.4	2	2.5	2.5	1	1			1			1	2.2	2	2	
				Apply the use of sensors for measurement of displacement, force and pressure.	K3	3	1	1									3	·'		1	
				Employ commonly used sensors in industry for measurement of temperature, position, accelerometer, vibration sensor, flow and le	K3	3	1	1		1							3	'	1	1 3	
6	BOE305	III SEM	CO-3 CO-4	Demonstrate the use of virtual instrumentation in automation industries. Identify and use data acquisition methods.	K2 K3	3	3	3		1	-						1		1	3	
				Comprehend intelligent instrumentation in industrial automation.	K4	3											3		⊢÷–∣	3	
				Sensor & Instrumentation		2.8	1.7	1.8		1							2.5		1	1.8	
			CO-1	To implement the given problem using array.	K3	3	1	1	2	2		1		2	1	2	3	1	3	3	
7	BCS351	III SEM		To implement the given problem using link list.	K3	3	1	1	2	2		1		2	1	2	2	1	3	3	
	603331	III SEM	CO-3	To apply searching and sorting algorithms on the given data sets.	K3	3	1	1	2	2		1		2	1	2	3	1	3	3	
			96.1	Data Structures Lab	***	3	1	1	2	2		1		2	1	2	3	1	3	3	
			CO-1 CO-2	Implementing electronic circuits using basic gates.	K3	1	1	2	2					1					1		
8	BCS352	III SEM		Verify the excitation tables of variuos logic circuits.	K2 K3	2		2	2	1	+	-		2		1	2	2		1	
			0-3	Design the control unit of a computer using either hardwiring or microprogramming based on its register transfer language description. Computer Organization & Architectures Lab	67	1.3	1	2	1.5	1				1.3		1	2	2	1	1	
			CO-1	Able to design static web page and apply style sheets to web page.	K2	2	-	-		-								1		_	_
	DOGIC	HI CENT		Able to perform client side validation and create basic bean using JAVA.	K3	3	2	2	1	2			1				1	2			
9	BCS353	III SEM		Able to create XML file with the help of DTD.	K2	3			3	2	2		1				1	1	1		
				Web Designing Lab		2.7	2	2	2	2	2		1				1	1.3	1		
				To understand and able to practice acquired knowledge within the chosen area of technology for project development.	K2	2	1	2			2	1			2		3	3	3		
10	BCC351	III SEM		Discuss and Justify the Technical aspects of the chosen project with a comprehensive and systematic approach.	K2	2	2	2	2		2	2	2	2	2		3	3	3	2	
1			CO-3	Able to work on hands-on projects on latest technology and justify how to work with different software systems and Technologies	K2	2	2	2	1		2	2	1		2	1	3	3	3	2	
			CO-1	Mini Project	K2	2	1.7	2	1.5	1	2	1.7	1.5 2	2	2	1 2	3	3	3	2	
				To learn the concepts limit, continuity, differentiability and integration in complex number domain and also to apply these concepts in the flow To understand the concepts of mathematical statistics e. g. correlation, regression, curve fitting etc. and to throw their applications in real life p	K2 K2	2	3	3	2	2	1	2	2			2		3	3		
	ı	I I	0.0-2	to understand the concepts of manifematical statistics e.g. correlation, regression, curve numg etc. and to unlow their applications in real file p	<b>n</b> 2	4	1 3	1 3		-	1	-	- 2	1		4		5			

		1				1 -	1				1				1 -	1			
11	BAS303	IV SEM	CO-3 CO-4	To apply the iterative methods e. g. Newton Raphson method, Regula falsi etc to solve non linear equations.	K3	3	3	2	2	3	1	3	2	_	2		3	2	
				To understand various interpolation formulae for equal time interval as well as unequal interval and to interpolate the given data. To learn vario	K2	2	3	2	2	2	1	3	2		3		2	2	-
			CO-5	To understand the concept of different types of Fourier transforms and to apply these in Heat, Wave and Laplace equations.	K2	-		-	-	÷			1	1		1	-		-
				Maths IV		2.4	3	2.5	1.8	2.2	1	2	2 1	1	2.4	_	2.75	2.5	2
			CO-1	Students will be able to understand about the need of value education and harmony in self, family, society and nature.	K2							2	3 3			3	_	_	
			CO-2	Students will be able to apply the understanding of value education to ensure harmony at all the four lelevis of living.	K3							2	3 3		_	3	_		2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3
12	BVE301	IV SEM	CO-3	Students will be able to analyze about self, feelings in relationship, society and relevence of nature.	K4							2	3 3		-	3		_	
			CO-4	Students will be able to evaluate their participation at all the four levels of living.	K5							2	3 3		-	3		_	
			CO-5	Students will be able to improve their emotional, social and professional competence.	K4							2	3 3			3			
				Universal Human Values								2	3 3			3			
			CO-1	Understand the basic concept of Operating system.	K2	2	1	1	1	2		1	1	1	2	2	1	3	
			CO-2	Discuss concurrent processes and their execution.	K2	3	2	1	2	2		1	1	1	2	2	2	3	
13	BCS401	IV SEM	CO-3	Analyze the concept of process scheduling and deadlock.	K4	3	1	1	1	2		1	1	1	2	3	1	3	
	Bestor		CO-4	Select different approaches of memory management techniques.	K1	3	2	1	1	2		1	1	1	2	3	1	3	3
			CO-5	Apply the concepts of disk scheduling.	K3	2	1	1	2	2		1	1	1	2	3	1	3	
				Operating System		2.6	1.4	1	1.4	2		1	1	1	2	2.6	1.2	3	-
			CO-1	able to understand and construct finite state machines	K2	2	2	1	2	1	1					2	1	1	1
			CO-2	able to prove the equivalence of languages described by finite state machines and regular expressions.	K5	2	2	1	2	1						1	1	1	1
14	BCS402	IV SEM	CO-3	able to construct pushdown automata and the equivalent context free grammars	K6	2	2	1	2	1						2	2	1	2
4	BC3402	IV SEM	CO-4	able to prove the equivalence of languages described by pushdown automata and context free grammars.	K5	3	2	2	2	1						1	2	1	2
			CO-5	able to construct Turing machines and Post machines.	K6	3	3	2	2	1	1					2	3	1	2
				Theory of Automata and Format Lanaguage		2.4	2.2	1.4	2	1	1					1.6	1.8	1	1.6
			CO-1	To introduce the fundamentals of Internet, and the principles of web design	K1	3	3	3		2			1			1	3	3	
			CO-2	Visualize and Recognize the basic concept of HTML and application in web designing.	K3	3	3	3		3	1		2	2		2	3	3	3
			CO-3	To construct basic websites using HTML and Cascading Style Sheets.	K6	2	2	2		3	2					1	2	2	
5	BCS403	IV SEM	CO-4	To build dynamic web pages with validation using Java Script objects and by applying different event handling mechanisms.	K6	2	2	2		3			2				2	2	1
15			CO-5	Introduce basics concept of Web Hosting and apply the concept of SEO	K3	3	2	3		3	2		2				3	2	3
				Object Oriented Programming with JAVA	-	2.6	2.4	2.6		2.8	1.7		1.8	2		1.3	2.6	2.4	2.2
			CO-1	Develop familiarity with and understanding of hot issues in computer and network security	K6	3	2	2	2	2	1		1			1	3	2	-
			CO-2	Explain various possible exploits, recreate cyber attacks on browsers, and servers with existing bugs, and explain how to mitigate such threats.	K2	3	2	1	1		-		1			1	3		-
	BCC301	01 IV SEM	CO-3	Gain hands-on experience with attack and defence techniques	K2	3	2	2	1				1		-		3	2	1
6			CO-4	Articulate the urgent need for cybersecurity in critical computer systems, networks, and the worldwide web, and explain various threat scenario	K2 K3	3	3	3	1				1				3		
			CO-5	Boost Students hireability through innovative and independent learning.	K3	2	3	3	3	3			1		-	1	3	2	2
			0-5	Cyber Security	KJ	2.8	2.4	2.2	1.6	2.5	1		1			1	3	2	-
			CO-1	Implement CPU Scheduling algorithms.	К3	3	2.4	1	3	3	1	1	1	2	3	3	1	3	
			CO-2	Implement the page replacement algorithms.	K3	3	2	1	3	3		1	1	2	3	3	1	3	-
17	BCS451	IV SEM	CO-2	Implement the disk scheduling algorithms.	K3	3	2	1	3	3		1	1	2	3	3	1	3	
			0-5	Operating System Lab	КJ	3	2	1	3	3		1	1	2	3	3	1	3	
-+			CO-1	Student will be able to recollect the concepts of HTML and JavaScript that are vital in webpage development.	K1	3	3	2	2	2	1	1	1	2	1	3	3	2	
			CO-2		K1 K2	3	3	2	2	2	1		1	_	1	3	2	2	
18	BCS452	IV CEM		Student shall demonstrate knowledge of languages, mark up tags, and good coding practices commonly used to create web pages.	K.2	3	5	2	2	2			1						
		IV SEM	CO 2		V.A.	2	2	1	2	2			1		1		-	2	
		IV SEM	CO-3	Student shall analyze given assignment to select sustainable web development and design methodology and inspect user experience and usabili	K4	3	3	1	2	2	1		1		1	3	2	2	2
		IV SEM		Object Oriented Programming with JAVA Lab		3	3	1 1.7	2 2	2 2	1		1		1		-		2
-		IV SEM	CO-1	Object Oriented Programming with JAVA Lab Apply basic concepts of python.	K3	3 1	3 1	1.7	2	-	1					3	2	2	2 2
19	BCS453	IV SEM	CO-1 CO-2	Object Oriented Programming with JAVA Lab Apply basic concepts of python. Apply sorting algorithm on data sets in python.	K3 K3	3 1 2	3	1.7 2	2 2 2	2	1		1 1 2		1	3	2		2 2 1
19	BCS453		CO-1	Object Oriented Programming with JAVA Lab Apply basic concepts of python. Apply sorting algorithm on data sets in python. Apply searching algorithm in python.	K3	3 1 2 1	3 1 1	1.7 2 2	2 2 2 1	2	1		1 1 2 1		1 1	3 3 2	2 2.3 2.3	1	2 2 1 1
19	BCS453		CO-1 CO-2 CO-3	Object Oriented Programming with JAVA Lab Apply basic concepts of python. Apply sorting algorithm on data sets in python. Apply searching algorithm in python. Cyber Security Workshop	K3 K3 K3	3 1 2 1 1.3	3 1	1.7 2	2 2 2	2	1		1 1 2		1	3	2	2 1 1	2 2 1 1 1 1
19	BCS453		CO-1 CO-2 CO-3 CO-1	Object Oriented Programming with JAVA Lab Apply basic concepts of python. Apply sorting algorithm on data sets in python. Apply searching algorithm in python. Cyber Security Workshop Understand the different issues involved in the design and implementation of the database system	K3 K3 K3 K2	3 1 2 1 1.3 3	3 1 1 1	1.7 2 2	2 2 2 1	2	1		1 1 2 1		1 1	3 3 2	2 2.3 2.3 2 2	2 1 3 2	2 2 1 1 1
19	BCS453		CO-1 CO-2 CO-3 CO-1 CO-2	Object Oriented Programming with JAVA Lab Apply basic concepts of python. Apply sorting algorithm on data sets in python. Apply searching algorithm in python. Cyber Security Workshop Understand the different issues involved in the design and implementation of the database system Understand and apply database queries in SQL, Relational algebra, E-R Diagram, tuple and domain calculus.	K3 K3 K3 K2 K3	3 1 2 1 1.3 3 3	3 1 1 1 2	1.7 2 2	2 2 2 1	2	1		1 1 2 1		1 1	3 3 2	2 2.3 2.3 2 2	2 1 1	2 2 1 1 1
	BCS453 KCS 501		CO-1 CO-2 CO-3 CO-1 CO-2 CO-3	Object Oriented Programming with JAVA Lab Apply basic concepts of python. Apply sorting algorithm on data sets in python. Apply sorting algorithm in python. Cyber Security Workshop Understand the different issues involved in the design and implementation of the database system Understand an apply database queries in SQL, Relational algebra, E-R Diagram, tuple and domain calculus. Apply normalization techniques.	K3 K3 K3 K2 K3 K3 K3	3 1 2 1 1.3 3 3 3 3	3 1 1 1 2 2 2	1.7 2 2 2 2	2 2 2 1	2	1		1 1 2 1		1 1	3 3 2	2 2.3 2.3 2 2	2 1 3 2	2 2 1 1 1
		IV SEM	CO-1 CO-2 CO-3 CO-1 CO-2 CO-3 CO-4	Object Oriented Programming with JAVA Lab Apply basic concepts of python. Apply basic concepts of python. Apply sorting algorithm on data sets in python. Apply searching algorithm in python. Understand the different issues involved in the design and implementation of the database system Understand the different issues queries in SQL, Relational algebra, E-R Diagram, tuple and domain calculus. Apply normalization techniques. Examine the concepts of transaction processing and distributed databases.	K3 K3 K3 K3 K2 K3 K3 K4	3 1 2 1 1.3 3 3 3 3 3	3 1 1 1 2	1.7 2 2	2 2 2 1	2	2	2	1 1 2 1		1 1	3 3 2	2 2.3 2.3 2 2	2 1 3 2	2 2 1 1 1
		IV SEM	CO-1 CO-2 CO-3 CO-1 CO-2 CO-3	Object Oriented Programming with JAVA Lab Apply basic concepts of python. Apply sorting algorithm on data sets in python. Apply searching algorithm in python. Cyber Security Workshop Understand the different issues involved in the design and implementation of the database system Understand and apply database queries in SQL, Relational algebra, E-R Diagram, tuple and domain calculus. Apply normalization techniques. Examine the concepts of transaction processing and distributed databases. Compare the concurrency control protocols	K3 K3 K3 K2 K3 K3 K3	3 1 2 1 1.3 3 3 3 3 3 3 3 3 3	3 1 1 1 2 2 2 2	1.7 2 2 2 2 2 2 2	2 2 2 1	2	2	2	1 1 2 1		1 1	3 3 2	2 2.3 2.3 2 2 2 2	2 1 3 2 2 2 2 2 2 2	2 2 1 1 1 2 2 2
		IV SEM	CO-1 CO-2 CO-3 CO-1 CO-2 CO-3 CO-4 CO-5	Object Oriented Programming with JAVA Lab Apply basic concepts of python. Apply sorting algorithm on data sets in python. Apply sorting algorithm in python. Cyber Security Workshop Understand the different issues involved in the design and implementation of the database system Understand and apply database queries in SQL, Relational algebra, E-R Diagram, tuple and domain calculus. Apply normalization techniques. Examine the concepts of transaction processing and distributed databases. Compare the concurrency control protocols Database Management System	K3 K3 K3 K2 K3 K3 K3 K4 K4 K4	3 1 2 1 1.3 3 3 3 3 3 3 3 3 3 3 3 3 3	3 1 1 1 2 2 2 2 2 2	1.7 2 2 2 2	2 2 2 1	2	-	-	1 1 2 1		1 1	2 2 2	2 2.3 2.3 2 2	2 1 3 2 2 2 2 3 2 .8 1.3	2 2 1 1 1 2 2 2
		IV SEM	CO-1 CO-2 CO-3 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1	Object Oriented Programming with JAVA Lab Apply basic concepts of python. Apply sorting algorithm on data sets in python. Apply sorting algorithm in python. Cyber Security Workshop Understand the different issues involved in the design and implementation of the database system Understand apply database queries in SQL, Relational algebra, E-R Diagram, tuple and domain calculus. Apply normalization techniques. Examine the concurrency control protocols Compare the concurrency control protocols Database Management System Apply the knowledge of the internet and related internet concepts that are vital in understanding web application development and	K3 K3 K3 K2 K3 K3 K3 K4 K4 K4 K2	3 1 2 1 1.3 3 3 3 3 3 3 3 3 3 3 3 3 3	3 1 1 1 2 2 2 2 2 2 3	1.7 2 2 2 2 2 2 2	2 2 2 1	2	2	2	1 1 2 1		1 1	2 2 2 3 3 3	2 2.3 2 2 2 2 2 2	2 1 3 2 2 2 3 2 2 3 3 2 3 3 2 3 3 2	2 2 1 1 1 2 2 2
		IV SEM	CO-1 CO-2 CO-3 CO-1 CO-2 CO-3 CO-4 CO-4 CO-5 CO-1 CO-2	Object Oriented Programming with JAVA Lab           Apply basic concepts of python.         Apply basic concepts of python.           Apply sorting algorithm on data sets in python.         Apply sorting algorithm in python.           Apply searching algorithm in python.         Cyber Security Workshop           Understand the different issues involved in the design and implementation of the database system         Understand and apply database queries in SQL, Relational algebra, E-R Diagram, tuple and domain calculus.           Apply normalization techniques.         Examine the concepts of transaction processing and distributed databases.           Compare the concurrency control protocols         Database Management System           Apply the knowledge of the internet and related internet concepts that are vital in understanding web application development and Understand, analyze and apply the role of mark up languages like HTML, DHTML, and XML in the workings of the web and web	K3 K3 K3 K3 K3 K3 K4 K4 K4 K4 K2 K6	3 1 2 1 1.3 3 3 3 3 3 3 3 3 3 3 3 3 3	3 1 1 1 2 2 2 2 2 2 3 3 3	1.7 2 2 2 2 2 2 2	2 2 2 1	2	2	2	1 1 2 1		1 1	3 3 2 2 2 2 3 3 3 3	2 2.3 2 2 2 2 2 2	2 1 3 2 2 2 2 3 2 .8 1.3	2 2 1 1 1 2 2 2
0		IV SEM	CO-1 CO-2 CO-3 CO-3 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-2 CO-3	Object Oriented Programming with JAVA Lab           Apply basic concepts of python.         Apply sorting algorithm on data sets in python.           Apply sorting algorithm in python.         Cyber Security Workshop           Understand the different issues involved in the design and implementation of the database system         Understand and apply database queries in SQL, Relational algebra, E-R Diagram, tuple and domain calculus.           Apply normalization techniques.         EXamine the concepts of transaction processing and distributed databases.           Compare the concurrency control protocols         Database Management System           Apply the knowledge of the internet and related internet concepts that are vital in understanding web application development and Understand, analyze and apply the cole of mark up languages like HTML, DHTML, and XML in the workings of the web and well           Uses web application development software tools is z. XML, Apacher Tomcat etc. and identifies the environments currently available	K3 K3 K3 K2 K3 K3 K4 K4 K4 K4 K2 K6 K6	3 1 2 1 1.3 3 3 3 3 3 3 3 3 3 3 3 3 3	3 1 1 1 2 2 2 2 2 2 3	1.7 2 2 2 2 2 2 2	2 2 2 1	2	2 2 2	2	1 1 2 1		1 1	3 3 2 2 2 2 3 3 3 3 3 3	2 2.3 2 2 2 2 2 2	2 1 3 2 2 2 3 2 2 3 3 2 3 3 2 3 3 2	2 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
0	KCS 501	IV SEM	CO-1 CO-2 CO-3 CO-1 CO-2 CO-3 CO-4 CO-4 CO-1 CO-2 CO-3 CO-4	Object Oriented Programming with JAVA Lab Apply basic concepts of python. Apply sorting algorithm on data sets in python. Apply sorting algorithm in python. Cyber Security Workshop Understand the different issues involved in the design and implementation of the database system Understand and apply database queries in SQL, Relational algebra, E-R Diagram, tuple and domain calculus. Apply normalization techniques. Examine the concepts of transaction processing and distributed databases. Compare the concurrency control protocols Database Management System Apply the knowledge of the internet and related internet concepts that are vital in understanding web application development and Understand, analyze and apply the role of mark up languages like HTML, DHTML, and XML in the workings of the web and wel Understand the impact of web designing by database connectivity with JDBC in the current market place where everyone use to p	K3 K3 K3 K2 K3 K3 K4 K4 K4 K4 K4 K6 K6 K6	3 1 2 1 1.3 3 3 3 3 3 3 3 3 3 3 3 3 3	3 1 1 1 2 2 2 2 2 2 3 3 3	1.7 2 2 2 2 2 2 2	2 2 2 1	2	2 2 3	2	1 1 2 1		1 1	3 3 2 2 2 2 2 3 3 3 3 3 3 3	2 2.3 2 2 2 2 2 2	2 1 3 2 2 2 3 2 2 3 3 2 3 3 2 3 3 2	2 2 1 1 1 2 2 2 2 1.3
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20	KCS 501	IV SEM	CO-1           CO-2           CO-3           CO-1           CO-3           CO-4           CO-5           CO-1           CO-2           CO-3           CO-4           CO-5           CO-1	Object Oriented Programming with JAVA Lab Apply basic concepts of python. Apply sorting algorithm on data sets in python. Apply sorting algorithm in python. Cyber Security Workshop Understand the different issues involved in the design and implementation of the database system Understand and apply database queries in SQL, Relational algebra, E-R Diagram, tuple and domain calculus. Apply normalization techniques. Examine the concepts of transaction processing and distributed databases. Compare the concurrency control protocols Database Management System Apply the knowledge of the internet and related internet concepts that are vital in understanding web application development and Understand, analyze and apply the role of mark up languages like HTML, DHTML, and XML in the workings of the web and wel Understand, analyze and apply the role of ones is to XML. Apache Tomcat etc. and identifies the environments currently available Understand, analyze and build dynamic web pages using client side programming JavaScript and also develop the web application Understand, analyze the DAA performance find an algorithm to solve the problem (create) & prove that laegorithm solves the problem c Understand the mathematical criterion for deciding whether an algorithm is efficient, and know many pratically important problem Apply classical sorting, searching, optimization and graph algorithms. Including the techniques for designing algorithms, including the techniques of recursion, divide-and-conquer, and greedy. Design and Maabasio of Algorithm To Understand the application development and analyze the insights of object-oriented programming to implement application.	K3 K3 K3 K3 K3 K3 K3 K3 K4 K4 K6 K6 K6 K6 K6 K6 K6 K6 K6 K6 K6 K2 K2 K2 K2	3 1 2 1 3 3 3 3 3 3 3 3 3 3 3 3 3	3 1 1 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3	1.7 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2 2 1		2 2 3 3	2	I           1           2           1		1 1	3 3 3 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2 2.3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 1 3 2 2 2 2 3 3 2 2 3 3 2 2 3 3 2 2 3 3 2 2 3 3 2 2 3 3 2 2 3 3 2 2 3 3 2 2 3 3 2 2 3 3 2 2 3 3 2 2 2 3 3 2 2 3 3 2 2 3 3 2 2 3 3 2 2 3 3 2 2 3 3 3 2 2 2 3 3 2 2 2 3 3 3 2 2 2 3 3 3 2 2 2 3 3 2 2 2 3 3 3 2 2 2 3 3 2 2 3 3 3 2 2 3 3 3 2 2 3 3 3 2 2 3 3 3 2 2 3 3 3 2 2 3 3 3 2 2 3 3 3 3 2 2 3 3 3 3 3 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3	2 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

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			CO-5	To understand and apply object-oriented paradigm concepts to implement real world problems. Object Oriented System Design	K3	3	3	3		3							3	6	2.6	<u>+</u>
-+			CO-1	Understand and analyze the common methods in the user-centered design process and the Appropriateness of individual methods i	K2	3	2.4	2.4		2.0							2.0	<u> </u>	2.0	<b>—</b>
			CO-2		K2 K2	3	2											+	2	+
			CO-2	Understand the classic design standards, Guidelines and patterns. Understand the screen design, information retrievals, statistical graphics and interface designs.	K2 K2	3	2											+	-2	+
4	KCS 058	V SEM	CO-4		K2 K2	3	2	2			2	2							2	
			CO-4 CO-5	Understand the selection of windows, Device based and Screen based controls with the use of icons and colors in multimedia appl		3		-			2	2					-	+		+
			CO-5	To Understand the concepts of pointing devices, Speech recognition and Drivers. Apply building and software tools in interface te Human Computer Interface	K2	3	2	2			2	2						+	13	<u>+</u>
$\rightarrow$			CO-1		K2		2	-			2	2	3		2		2	<del></del>	1.5	2
			CO-1 CO-2	On completion of this course, the student will be able to Understand the legacies of constitutional development in India and help the		<u> </u>		2			2	2	3	2	2		2	2	_	<u> </u>
			CO-2 CO-3	On completion of this course, to make students aware of the theoretical and functional aspects of the Indian Parliamentary System	K4 K4	2		2			2	2	3	2	2	2	2	1	1	+
15	KNC 501	V SEM	CO-3 CO-4	To differentiate different aspects of the Indian Legal system and its related bodies.	K4 K3	2	2	2	2		3	3	3	2	2	2	2	2		+
			-	Discover and apply different laws and regulations related to engineering practices.		2	2	2	2		3	3		2	2	2	2	2		+
			CO-5	To understand the role of Engineers in different organisation and e- governance Constitution of India	K2	-	2	2	2		3 2.4	3 2.4	3	2	2	2	2	-		2
+			CO-1		K6	2	2	2	2		2.4	2.4	1	3	3	2	2	1.6		2
			CO-1 CO-2	Design an information model expressed in the form of ER diagram. Apply SQL queries to implement and manipulate the database and provide different constraints.	K0 K3	2	2	1			1		1	3	2	2	2	2	1	2
6	KCS 551	V SEM	CO-2 CO-3	Apply SQL queries to implement and manipulate the database and provide different constraints. Apply structured query language to automate the real time problems of databases,	K3 K3	2	2				1		1	3	2	2	2	2	_	2
			0-3		K.S	2	1.7	1			1		1	3	2.3	2	2	2.3		2
$\rightarrow$			CO-1	Database Management System Lab	K6	3	3	3	2	2	1		1	1	2.3	2	3	3		2
				Able to design static web page and apply style sheets to web page.		3	3	3	2	2	1			1		1	3	2	_	2
7	KIT 551	V SEM	CO-2	Able to perform client side validation and create basic bean using JAVA.	K6					-								_	_	_
			CO-3	Able to create XML file with the help of DTD.	K6	3	3	3	2	1				1		1	3	2		2
+			00.1	Web Technology Lab	<i>V</i> :	3	3	3	2	1.7	1			1		1	3	2.3	_	2
			CO-1	Implement algorithm to solve problems by iterative approach	K6	3	3	2	2	2	1			1		1	3	3	-	2
8	KCS 553	V SEM	CO-2	Implement algorithm to solve problems by divide and conquer approach and Greedy algorithm approach	K6	3	3	-	-	-				1					-	-
			CO-3	Implement algorithm to solve problems by Dynamic programming, backtracking and branch and bound approach	K6	3	3	1	2	2				1		1	3	2	_	_
_				Design And Analysis of Algorithm Lab		3	3	2	2	2	1			1		1	3	2		2
			CO-1	To understand and able to practice acquired knowledge within the chosen area of technology for project development.	K2	2	1	2			2	1			2		3	3	_	<u> </u>
9	KCS 554	V SEM	CO-2	Discuss and Justify the Technical aspects of the chosen project with a comprehensive and systematic approach.	K2	2	2	2	2		2	2	2	2	2		3	3		-
			CO-3	To understand and able to work on hands-on projects on latest technology.	K2	2	2	2	1		2	2	1		2	1	3	3		_
$\rightarrow$				Mini Project		2	1.7	2	1.5		2	1.7	1.5	2	2	1	3	3		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
		601 VI SEM	CO-1	Understand the concept of SDLC through analysis of various implemantation methods and basics of quality process involved in its devlopment	1	3	2	1				1	1				1	1	3	
			CO-2	Apply requirments elicitation to create SRS document and their parameter specification after analysing feasibility.	K3	2	3	3	2	2	2	2	1	3	2		2	1	3	-
0	KCS 601		CO-3	Understand and apply the design process of software devlopment and its metrics.	K2	3	2	3	2	2	2			2	2		2		3	
۲ I	RC5 001		CO-4	Test the devloped Software while applying the different test strategies.	K3	3	2			2	1					2	2	2	3	2
			CO-5	Application of post Implementation measure to combat cost issue while suggesting corrective measure to deal with risk.	K6	3			2	1		1		2		2			2 3 3	
				Software Engineering		2.8	2.3	2.3	2	1.8	1.7	1.3	1	2.3	2	2	1.8	_	_	2
			CO-1	Understand the concept of decision making and simulation and modeling techniques.	K2	1	2	1	1	1	1	2	1	2	1	1	1	2	1	1
			CO-2	Student will able to analyze and manipulate the data and also able to learn new data analysis techniques.	K4	1	1	2	1	1	1	1		1			1	1	1	3
	KIT 601	VI SEM	CO-3	Student will able work with new collaboration and communication tools and technologies.	K3	1	1	2	3	2	2	1	1	2	1	1	1	3		3
1	K11 001	VI SEM	CO-4	Understand the term Artificial intelligence. Also able to learn and implement valous AI concepts. Understand the idea of expert systems and the	K2	1	1	1	3	2	1	1	1	1	1	1	1	2		1
			CO-5	Implement the various e-commerce methods with suitable tools and techniques.	K4	2	2	3	2	3	3	2	1	3	3	2	3	3	3	3
				Data Analytics		1.2	1.4	1.8	2	1.8	1.6	1.4	1	1.8	1.5	1.3	1.4	2.2	1.6	2.2
			CO-1	Understand the practical meaning and importance of 'Computer Networks'. Familiar with how transmission of data takes place, network topolo	K2	3	3	3	1	3	1	1	1	1	3		2	2	2	3
			CO-2	Able to grasp the significance of error control and error correction protocols, flow control, MAC protocols and sliding window protocols amon	K4	3											2	2		
<u> </u>	KCS 603	VICEN	00.0		1.4	3	3	3	3	3	1				3		2	3	3	3
	RC3 005		CO-3	Apply the concepts of IP and other protocols in network layer for smooth functioning and maintenance of computer network. Also reveals conf		2	3	3	3 2	3	1			2	3		-		*	
<sup>52</sup>		VI SEM	CO-3 CO-4	Apply the concepts of IP and other protocols in network layer for smooth functioning and maintenance of computer network. Also reveals conf Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to n	K3		÷			-	1			2			2	3	3	3
2		VISEM	-		K3	2	3	3	2	3	-			2	2		2	3	3	3
12		VISEM	CO-4	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to n	K3 K1	2	3	3 2	2 2	3	1	1	1	2	2		2 3 2	3 2 2 2 2	3 2 2	3 1 1 1
2		VISEM	CO-4	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to n Manage to skilled with the working and practical knowledge of E-mail, FTP, Telnet, POP, DNS etc. on public and private networks.	K3 K1	2 2 3	3 3 2	3 2 2	2 2 1	3 2 3	1 2	1 2	<b>1</b> 1		2 3 3	1	2 3 2 2	3 2 2 2 2	3 2 2 2 2.4	3 1 1 1
2		VISEM	CO-4 CO-5	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to n Manage to skilled with the working and practical knowledge of E-mail, FTP, Telnet, POP, DNS etc. on public and private networks. Computer Networks	K3 K1 K2	2 2 3 <b>2.6</b>	3 3 2 2.8	3 2 2 2.6	2 2 1 1.8	3 2 3 2.8	1 2 1.3			1.5	2 3 3 2.8	1	2 3 2 2 2.2	3 2 2 2 2 2.2	3 2 2 2 2.4	3 1 1 1 1 1.8
			CO-4 CO-5 CO-1	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to r Manage to skilled with the working and practical knowledge of E-mail, FTP, Telnet, POP, DNS etc. on public and private networks. Computer Networks Understand basic of Big Data, and interpret the different related issues and application areas of Big data.	K3 K1 K2 K2	2 2 3 <b>2.6</b> 1	3 3 2 2.8 2	3 2 2 2.6 1	2 2 1 1.8 1	3 2 3 <b>2.8</b> 1	1 2 1.3 1	2		<b>1.5</b> 2	2 3 3 2.8	1	2 3 2 2 2.2 1	3 2 2 2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2 2 4 1 1	3 1 1 1 1 <b>1.8</b> 1
	KCS 061	VI SEM	CO-4 CO-5 CO-1 CO-2	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to r Manage to skilled with the working and practical knowledge of E-mail, FTP, Telnet, POP, DNS etc. on public and private networks. Computer Networks Understand basic of Big Data, and interpret the different related issues and application areas of Big data. Explain the concept of NoSQL, analysis of distributed model	K3 K1 K2 K2 K2 K2	2 2 3 2.6 1 1	3 3 2 2.8 2 1	3 2 2 2.6 1 2	2 2 1 1.8 1 1	3 2 3 2.8 1 1	1 2 1.3 1	2		1.5 2 1	2 3 3 2.8	1	2 3 2 2 2.2 1 1	3 2 2 2 2 2 2 2 2 2 1	3 2 2 2 2 2 2 2 4 1 1 2	3 1 1 1 1 <b>1.8</b> 1 3
	KCS 061		CO-4 CO-5 CO-1 CO-2 CO-3	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to r Manage to skilled with the working and practical knowledge of E-mail, FTP, Telnet, POP, DNS etc. on public and private networks. Computer Networks Understand basic of Big Data, and interpret the different related issues and application areas of Big data. Explain the concept of NoSQL, analysis of distributed model Understand the Hadoop basics, its architecture and Analyze & implementation of map-reduce functions	K3 K1 K2 K2 K2 K2 K2	2 2 3 2.6 1 1 1	3 3 2 2.8 2 1 1	3 2 2 2.6 1 2 2 2	2 2 1 1.8 1 1 3	3 2 3 2.8 1 1 2.8	1 2 1.3 1 1 2	2 1 1	1	1.5 2 1 2	2 3 3 2.8 1 1	1	2 3 2 2 2 2 2 1 1 1 1	3 2 2 2 2 2 2 2 2 2 1 3	3 2 2 2 2 2 2.4 1 1 2 1	3 1 1 1 1 1.8 1 3 3 3
	KCS 061		CO-4 CO-5 CO-1 CO-2 CO-3 CO-4	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to n Manage to skilled with the working and practical knowledge of E-mail, FTP, Telnet, POP, DNS etc. on public and private networks. Computer Networks Understand basic of Big Data, and interpret the different related issues and application areas of Big data. Explain the concept of NoSQL, analysis of distributed model Understand the Hadoop basics, its architecture and Analyze & implementation of map-reduce functions Learn, explain and the analyse the essentials of MR1 and MR2, hadoop task scheduling.data compression and data integrity.	K3 K1 K2 K2 K2 K2 K2 K2 K2	2 2 3 2.6 1 1 1 1	3 3 2 2.8 2 1 1 1	3 2 2 2.6 1 2 2 1	2 2 1 1.8 1 1 3 3	3 2 3 2.8 1 1 2 2	1 2 1.3 1 1 2 1	2 1 1 1	1 1 1 1	1.5 2 1 2 1	2 3 3 2.8 1 1 1	1	2 3 2 2 2.2 1 1 1 1 1	3 2 2 2 2 2 2 2 2 2 2 2 2 2 1 3 3 2	3 2 2 2 2 2 2 2 4 1 1 2 1 2 1 3	3 1 1 1 1 1 1 1 3 3 3 1 3 3
	KCS 061		CO-4 CO-5 CO-1 CO-2 CO-3 CO-4	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to r Manage to skilled with the working and practical knowledge of E-mail, FTP, Telnet, POP, DNS etc. on public and private networks. Computer Networks Understand basic of Big Data, and interpret the different related issues and application areas of Big data. Explain the concept of NoSQL, analysis of distributed model Understand the Hadoop basics, its architecture and Analyze & implementation of map-reduce functions Learn, explain and the analyse the essentials of MR1 and MR2, hadoop task scheduling,data compression and data integrity. Understand and implement Hadoop tools, including Hive, Pig, Cassandra and Hbase.	K3 K1 K2 K2 K2 K2 K2 K2 K2 K2 K2	2 2 3 2.6 1 1 1 1 2	3 3 2 2.8 2 1 1 1 2	3 2 2 2.6 1 2 2 1 3	2 2 1 1.8 1 1 3 3 2	3 2 3 2.8 1 1 2 2 3	1 2 1.3 1 1 2 1 3	2 1 1 1 2	1 1 1 1 1	1.5 2 1 2 1 3	2 3 3 2.8 1 1 1 3	1 1 2	2 3 2 2 2 2 2 2 2 2 2 1 1 1 1 1 3	3           2           2           2           2           2           2           2           2           2           2           2           2           2           2           2           2           2           3           3           2           3           3	3 2 2 2 2 2 2 4 1 1 2 1 2 1 3	3 1 1 1 1 1 1 1 3 3 3 1 3 3
	KCS 061		CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to r Manage to skilled with the working and practical knowledge of E-mail, FTP, Telnet, POP, DNS etc. on public and private networks. Computer Networks Understand basic of Big Data, and interpret the different related issues and application areas of Big data. Explain the concept of NoSQL, analysis of distributed model Understand the Hadoop basics, its architecture and Analyze & implementation of map-reduce functions Learn, explain and the analyse the essentials of MR1 and MR2, hadoop task scheduling,data compression and data integrity. Understand and implement Hadoop tools, including Hive, Pig, Cassandra and Hbase. Big Data	K3 K1 K2 K2 K2 K2 K2 K2 K2 K2 K2	2 2 3 2.6 1 1 1 1 2	3 3 2 2.8 2 1 1 1 2	3 2 2 2.6 1 2 2 1 3	2 2 1 1.8 1 1 3 3 2	3 2 3 2.8 1 1 2 2 3	1 2 1.3 1 1 2 1 3	2 1 1 1 2	1 1 1 1 1	1.5 2 1 2 1 3	2 3 3 2.8 1 1 1 3	1 1 2	2 3 2 2 2 2 2 2 2 2 2 1 1 1 1 1 3	3           2           2           2           2           2           2           2           2           2           2           2           2           2           2           2           2           2           3           3           2           3           3	3 2 2 2 2 2 2 4 1 1 2 1 2 1 3	3 1 1 1 1 1 1 1 3 3 3 1 3 3
3		VI SEM	CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to r Manage to skilled with the working and practical knowledge of E-mail, FTP, Telnet, POP, DNS etc. on public and private networks. Computer Networks Understand basic of Big Data, and interpret the different related issues and application areas of Big data. Explain the concept of NoSQL, analysis of distributed model Understand the Hadoop basics, its architecture and Analyze & implementation of map-reduce functions Learn, explain and the analyse the essentials of MR1 and MR2, hadoop task scheduling,data comppression and data integrity. Understand and implement Hadoop tools, including Hive, Pig. Cassandra and Hbase. Big Data Differentiate between the skills and roles of functional and technical managers for software efforts and their relationship with other organizatio	K3 K1 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2	2 2 3 2.6 1 1 1 1 2 1.2	3 3 2 2.8 2 1 1 1 2 1.4	3 2 2 2.6 1 2 2 1 3	2 2 1 1.8 1 1 3 3 2 2 2 2	3 2 3 2.8 1 1 2 2 3	1 2 1.3 1 1 2 1 3	2 1 1 1 2	1 1 1 1 1	1.5 2 1 2 1 3	2 3 3 2.8 1 1 1 3	1 1 2 1.3	2 3 2 2 2 2 2 2 2 2 2 1 1 1 1 1 3	3           2           2           2           2           2           2           2           2           2           2           2           2           2           2           2           2           2           3           3           2           3           3	3 2 2 2 2 2 2 4 1 1 1 2 1 3 2 2 4 1 1 3 2 2 4 1 1 3 2 2 2 4 1 1 3 3 2 2 2 2 4 1 1 1 2 2 2 2 4 1 1 1 1 1 1 1	3 1 1 1 1 1 1 1 3 3 3 1 3 3
3	KCS 061		CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-2	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to r Manage to skilled with the working and practical knowledge of E-mail, FTP, Tehnet, POP, DNS etc. on public and private networks. Computer Networks Understand basic of Big Data, and interpret the different related issues and application areas of Big data. Explain the concept of NoSQL, analysis of distributed model Understand the Hadoop basics, its architecture and Analyze & implementation of map-reduce functions Learn, explain and the analyse the essentials of MR1 and MR2, hadoop task scheduling,data comppression and data integrity. Understand and implement Hadoop tools, including Hive, Pig, Cassandra and Hbase. Big Data Differentiate between the skills and roles of functional and technical managers for software efforts and their relationship with other organizatio Produce specific sections of the plan used to manage the software development and maintenance efforts	K3 K1 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2	2 2 3 2.6 1 1 1 2 1.2 2	3 3 2 2.8 2 1 1 1 2 1.4	3 2 2 2.6 1 2 2 1 3	2 2 1 1.8 1 1 3 3 2 2 2 2	3 2 3 2.8 1 1 2 2 3 1.8	1 2 1.3 1 1 2 1 3	2 1 1 1 2	1 1 1 1 1	1.5 2 1 2 1 3	2 3 3 2.8 1 1 1 3	1 1 2 1.3 2	2 3 2 2 2 2 2 2 2 2 2 1 1 1 1 1 3	3           2           2           2           2           2           2           2           2           2           2           2           2           2           2           2           2           2           3           3           2           3           3	2 2 2 2 2 2 2 2 2 2 2 1 1 1 2 2 1 3 3 2 2 2 2	3 1 1 1 1 1 1 1 3 3 3 1 3 3
3		VI SEM	CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-2 CO-3	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to r Manage to skilled with the working and practical knowledge of E-mail, FTP, Telnet, POP, DNS etc. on public and private networks. Computer Networks Understand basic of Big Data, and interpret the different related issues and application areas of Big data. Explain the concept of NoSQL, analysis of distributed model Understand the Hadoop basics, its architecture and Analyze & implementation of map-reduce functions Learn, explain and the analyse the essentials of MR1 and MR2, hadoop task scheduling,data compression and data integrity. Understand and implement Hadoop tools, including Hrve, Pig, Cassandra and Hbase. Big Data Differentiate between the skills and roles of functional and technical managers for software efforts and their relationship with other organizatio Fvaluate software project management practices within an organization and recommend practical improvements based upon your evaluation.	K3 K1 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2	2 2 3 2.6 1 1 1 2 1.2 2	3 3 2 2.8 2 1 1 1 2 1.4 2 2	3 2 2 2.6 1 2 2 1 3	2 2 1 1.8 1 1 3 3 2 2 2 2	3 2 3 2.8 1 1 1 2 2 3 1.8 3	1 2 1.3 1 1 2 1 3	2 1 1 1 2	1 1 1 1 1	1.5 2 1 2 1 3	2 3 3 2.8 1 1 1 3	1 1 2 1.3 2	2 3 2 2 2 2 2 2 2 2 2 1 1 1 1 1 3	3           2           2           2           2           2           2           2           2           2           2           2           2           2           2           2           2           2           3           3           2           3           3	2 2 2 2 2 2 2 2 2 2 2 1 1 1 2 2 1 3 3 2 2 2 2	3           1           1           1           1           3           1           3           2.2
3		VI SEM	CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-2 CO-3 CO-4	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to r Manage to skilled with the working and practical knowledge of E-mail, FTP, Telnet, POP, DNS etc. on public and private networks. Computer Networks Understand basic of Big Data, and interpret the different related issues and application areas of Big data. Explain the concept of NoSQL, analysis of distributed model Understand the Hadoop basics, its architecture and Analyze & implementation of map-reduce functions Learn, explain and the analyse the essentials of MR1 and MR2, hadoop task scheduling,data compression and data integrity. Understand and implement Hadoop tools, including Hive, Pig, Cassandra and Hbase. Big Data Differentiate between the skills and roles of functional and technical managers for software efforts and their relationship with other organizatio Produce specific sections of the plan used to manage the software development and maintenance efforts Evaluate software project management practices within an organization and recommend practical improvements based upon your evaluation. Apply schedule and cost techniques to determine a Basis of Estimate.	K3 K1 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2	2 2 3 2.6 1 1 1 2 1.2 2	3 3 2 2.8 2 1 1 1 2 1.4 2 2 2 2	3 2 2 2.6 1 2 2 1 3 3 1.8	2 2 1 1.8 1 1 3 3 2 2 2 2 2	3 2 3 2.8 1 1 1 2 2 3 1.8 3	1 2 1.3 1 1 2 1 3	2 1 1 1 2	1 1 1 1 1 1	1.5 2 1 2 1 3	2 3 3 2.8 1 1 1 3	1 1 2 1.3 2	2 3 2 2 2 2 2 2 2 2 1 1 1 1 1 3	3           2           2           2           2           2           2           2           2           2           2           2           2           2           2           2           2           2           3           3           2           3           3	3           2           2           2           2           2           2           1           1           2           1           3           2           1           3           2           1           3           2           2           2           2           2           1	3           1           1           1           1           1           3           1           3           1           3           2.2           2           2           2           2           2
3		VI SEM	CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1 CO-2 CO-3 CO-4	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to r Manage to skilled with the working and practical knowledge of E-mail, FTP, Telnet, POP, DNS etc. on public and private networks. Computer Networks Understand basic of Big Data, and interpret the different related issues and application areas of Big data. Explain the concept of NoSQL, analysis of distributed model Understand the Hadoop basics, its architecture and Analyze & implementation of map-reduce functions Learn, explain and the analyse the essentials of MR1 and MR2, hadoop task scheduling,data compression and data integrity. Understand and implement Hadoop tools, including Hive, Pig, Cassandra and Hbase. Big Data Differentiate between the skills and roles of functional technical managers for software efforts and their relationship with other organization Produce specific sections of the plan used to manage the software development and maintenance efforts Evaluate software project management practices within an organization and recommend practical improvements based upon your evaluation. Apply schedule and cost techniques to determine a Basis of Estimate Analyze the cost benefit analysis and risk management. Software Project Management	K3 K1 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2	2 2 3 2.6 1 1 1 1 2 1.2 2 2	3 3 2 2.8 2 1 1 1 2 1.4 2 2 2 2 2 2	3 2 2 2 2 2 .6 1 2 2 1 3 1.8	2 2 1 1 1 3 3 2 2 2 2 2 2	3 2 3 2.8 1 1 2.8 1 2 3 1.8 3 1	1 2 1.3 1 1 2 1 3	2 1 1 1 2	1 1 1 1 1 1	1.5 2 1 2 1 3	2 3 3 2.8 1 1 1 3	1 1 2 1.3 2 2	2 3 2 2 2 2 2 2 2 2 1 1 1 1 1 3	3           2           2           2           2           2           2           1           1	3           2           2           2           2           2           2           1           1           2           1           3           2           1           3           2           1           2           2           2           2           2           1	3           1           1           1           1           1           3           1           3           1           3           2.2           2           2           2           2           2
3		VI SEM	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	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to r Manage to skilled with the working and practical knowledge of E-mail, FTP, Telnet, POP, DNS etc. on public and private networks. Computer Networks Understand basic of Big Data, and interpret the different related issues and application areas of Big data. Explain the concept of NoSQL, analysis of distributed model Understand the Hadoop basics, its architecture and Analyze & implementation of map-reduce functions Learn, explain and the analyse the essentials of MR1 and MR2, hadoop task scheduling,data comppression and data integrity. Understand and implement Hadoop tools, including Hive, Pig, Cassandra and Hbase. Big Data Differentiate between the skills and roles of functional and technical managers for software efforts and their relationship with other organization Produce specific sections of the plan used to manage the software development and maintenance efforts Evaluate software project management practices within an organization and recommend practical improvements based upon your evaluation. Apply schedule and cost techniques to determine a Basis of Estimate. Analyze the cost benefit analysis and risk managerment. Bottware Project Management Demonstrate intercultural understanding required to effectively negotiate a diverse global society.	K3 K1 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K3 K4 K5 K3 K4 K2	2 2 3 2.6 1 1 1 1 2 1.2 2 2	3 3 2 2.8 2 1 1 1 2 1.4 2 2 2 2 2 2	3 2 2 2 2 2 .6 1 2 2 1 3 1.8	2 2 1 1 1 3 3 2 2 2 2 2 2	3 2 3 2.8 1 1 2.8 1 2 3 1.8 3 1	1 2 1.3 1 1 2 1 3 1.6	2 1 1 2 1.4	1 1 1 1 1 1 2 2 2	1.5 2 1 2 1 3 1.8	2 3 3 2.8 1 1 1 3	1 1 2 1.3 2 2	2 3 2 2 2 2 2 2 2 2 2 2 2 2 1 1 1 1 1 3 3 1.4	3           2           2           2           2           2           2           1           1	3           2           2           2           2           2           2           1           1           2           1           3           2           1           3           2           1           2           2           2           2           2           1	3           1           1           1           1           1           3           1           3           1           3           2.2           2           2           2           2           2
3	KOE 068	VI SEM	CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-4 CO-1 CO-2 CO-3 CO-4 CO-5 CO-4 CO-5 CO-4 CO-5	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to r Manage to skilled with the working and practical knowledge of E-mail, FTP, Telnet, POP, DNS etc. on public and private networks. Computer Networks Understand basic of Big Data, and interpret the different related issues and application areas of Big data. Explain the concept of NoSQL, analysis of distributed model Understand the Hadoop basics, its architecture and Analyze & implementation of map-reduce functions Learn, explain and the analyse the essentials of MR1 and MR2, hadoop task scheduling.data compression and data integrity. Understand and implement Hadoop tools, including Hive, Pig, Cassandra and Hbase. Big Data Differentiate between the skills and roles of functional and technical managers for software efforts and their relationship with other organizatio Produce specific sections of the plan used to manage the software development and maintenance efforts Evaluate software project management practices within an organization and recommend practical improvements based upon your evaluation. Apply schedule and cost techniques to determine a Basis of Estimate. Analyze the cost benefit analysis and risk management. Software Project Management Demonstrate intercultural understanding required to effectively negotiate a diverse global society. Critically engage with the products of culture, through interpretation or creative expression.	K3 K1 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K3 K4 K4 K3 K3	2 2 3 2.6 1 1 1 1 2 1.2 2 2	3 3 2 2.8 2 1 1 1 2 1.4 2 2 2 2 2 2	3 2 2 2 2 2 .6 1 2 2 1 3 1.8	2 2 1 1 1 3 3 2 2 2 2 2 2	3 2 3 2.8 1 1 2.8 1 2 3 1.8 3 1	1 2 1.3 1 1 2 1 3 1.6	2 1 1 2 1.4	1 1 1 1 1 1 2 2 2 3	1.5 2 1 2 1 3 1.8	2 3 3 2.8 1 1 1 3	1 1 2 1.3 2 2	2 3 2 2 2 2 2 2 2 2 2 2 2 2 1 1 1 1 1 3 3 1.4	3           2           2           2           2           2           2           1           1	3           2           2           2           2           2           2           1           1           2           1           3           2           1           3           2           1           2           2           2           2           2           1	3           1           1           1           1           1           3           1           3           1           3           2.2           2           2           2           2           2
3		VI SEM	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-5	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to r Manage to skilled with the working and practical knowledge of E-mail, FTP, Tehnet, POP, DNS etc. on public and private networks. Computer Networks Understand basic of Big Data, and interpret the different related issues and application areas of Big data. Explain the concept of NoSQL, analysis of distributed model Understand the Hadoop basics, its architecture and Analyze & implementation of map-reduce functions Learn, explain and the analyse the essentials of MR1 and MR2, hadoop task scheduling,data comppression and data integrity. Understand and implement Hadoop tools, including Hive, Pig, Cassandra and Hbase. Big Data Differentiate between the skills and roles of functional and technical managers for software efforts and their relationship with other organizatio Produce specific sections of the plan used to manage the software development and maintenance efforts Evaluate software project management practices within an organization and recommend practical improvements based upon your evaluation. Apply schedule and cost techniques to determine a Basis of Estimate Analyze the cost benefit analysis and risk management. Software Project Management Demonstrate intercultural understanding required to effectively negotiate a diverse global society. Critically engage with the products of culture, through interpretation or creative expression. Understand diverse communities on local, national, and/or global levels.	K3 K1 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K3 K4 K3 K3 K2	2 2 3 2.6 1 1 1 1 2 1.2 2 2	3 3 2 2.8 2 1 1 1 2 1.4 2 2 2 2 2 2	3 2 2 2 2 2 .6 1 2 2 1 3 1.8	2 2 1 1 1 3 3 2 2 2 2 2 2	3 2 3 2.8 1 1 2.8 1 2 3 1.8 3 1	1 2 1.3 1 1 2 1 3 1.6	2 1 1 2 1 2 1.4	1 1 1 1 1 1 2 2 2 3	1.5 2 1 2 1 3 1.8	2 3 3 2.8 1 1 1 3	1 1 2 1.3 2 2	2 3 2 2 1 1 1 1 1 3 3 1.4	3           2           2           2           2           2           2           1           1	3           2           2           2           2           2           2           1           1           2           1           3           2           1           3           2           1           2           2           2           2           2           1	3           1           1           1           1           1           3           1           3           1           3           2.2           2           2           2           2
3	KOE 068	VI SEM	CO-4           CO-5           CO-1           CO-2           CO-3           CO-4           CO-5           CO-1           CO-2           CO-3	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to r Manage to skilled with the working and practical knowledge of E-mail, FTP, Telnet, POP, DNS etc. on public and private networks. Computer Networks Understand basic of Big Data, and interpret the different related issues and application areas of Big data. Explain the concept of NoSQL, analysis of distributed model Understand the Hadoop basics, its architecture and Analyze & implementation of map-reduce functions Learn, explain and the analyse the essentials of MR1 and MR2, hadoop task scheduling,data comppression and data integrity. Understand the information of the planused to manage the software development and Hase. Big Data Differentiate between the skills and roles of functional technical managers for software efforts and their relationship with other organization Produce specific sections of the planused to manage the software development and maintenance efforts Evaluate software project management practices within an organization and recommend practical improvements based upon your evaluation. Apply schedule and cost techniques to determine a Basis of Estimate Analyze the cost benefit analysis and risk management. Software Project Management Demonstrate intercultural understanding required to effectively negotiate a diverse global society. Critically engage with the products of culture, through interpretation or creative expression. Understand diverse communities on local, national, and/or global levels. The students would be able to understand & evaluate Grievances and Grievance handling Procedure. Also they would be able to comprehend th	K3           K1           K2           K3           K4           K5           K3           K4           K2           K2           K2           K2           K2           K2           K2           K2           K2           K2	2 2 3 2.6 1 1 1 1 2 1.2 2 2	3 3 2 2.8 2 1 1 1 2 1.4 2 2 2 2 2 2	3 2 2 2 2 2 .6 1 2 2 1 3 1.8	2 2 1 1 1 3 3 2 2 2 2 2 2	3 2 3 2.8 1 1 2.8 1 2 3 1.8 3 1	1 2 1.3 1 1 2 1 3 1.6	2 1 1 2 1 2 1.4	1 1 1 1 1 1 2 2 2 3 3 3	1.5 2 1 2 1 3 1.8 1 1 1	2 3 3 2.8 1 1 1 3	1 1 2 1.3 2 2	2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 1 1 1 1 1	3           2           2           2           2           2           2           1           1	3           2           2           2           2           2           2           1           1           2           1           3           2           1           3           2           1           2           2           2           2           2           1	3           1           1           1           1           1           3           1           3           1           3           2.2           2           2           2           2
3	KOE 068	VI SEM	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-5 CO-1 CO-5 CO-1 CO-5 CO-1 CO-2 CO-1 CO-1 CO-1 CO-1 CO-1 CO-2 CO-1 CO-1 CO-2 CO-1 CO-1 CO-2 CO-1 CO-2 CO-1 CO-2 CO-3 CO-4 CO-1 CO-2 CO-3 CO-4 CO-1 CO-2 CO-1 CO-2 CO-3 CO-4 CO-1 CO-2 CO-3 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-2 CO-3 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-2 CO-3 CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-2 CO-3 CO-4 CO-2 CO-3 CO-4 CO-2 CO-3 CO-4 CO-5 CO-4 CO-5 CO-4 CO-5 CO-4 CO-5 CO-4 CO-5 CO-3 CO-4 CO-5 CO-4 CO-5 CO-4 CO-5 CO-3 CO-4 CO-5 CO-4 CO-5 CO-4 CO-5 CO-6 CO-5 CO-6 CO-5 CO-6 CO-5 CO-6 CO-6 CO-6 CO-6 CO-6 CO-6 CO-6 CO-6	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to r Manage to skilled with the working and practical knowledge of E-mail, FTP, Telnet, POP, DNS etc. on public and private networks. Computer Networks Understand basic of Big Data, and interpret the different related issues and application areas of Big data. Explain the concept of NoSQL, analysis of distributed model Understand the Hadoop basics, its architecture and Analyze & implementation of map-reduce functions Learn, explain and the analyse the essentials of MR1 and MR2, hadoop task scheduling,data comppression and data integrity. Understand and implement Hadoop tools, including Hrve, Pig. Cassandra and Hbase. Big Data Differentiate between the skills and roles of functional and technical managers for software efforts and their relationship with other organization Produce specific sections of the plan used to manage the software development and maintenance efforts Evaluate software project management practices within an organization and recommend practical improvements based upon your evaluation. Apply schedule and cost techniques to determine a Basis of Estimate. Analyze the cost benefit analysis and risk management. Demonstrate intercultural understanding required to effectively negotiate a diverse global society. Critically engage with the products of culture, through interpretation or creative expression. Understand diverse communities on local, national, and/or global levels. The students would be able to understand & evaluate Grievances and Grievance handling Procedure. Also they would be able to comprehend tt Examine social and political structures in contemporary India	K3 K1 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K2 K3 K4 K3 K3 K2	2 2 3 2.6 1 1 1 1 2 1.2 2 2	3 3 2 2.8 2 1 1 1 2 1.4 2 2 2 2 2 2	3 2 2 2 2 2 .6 1 2 2 1 3 1.8	2 2 1 1 1 3 3 2 2 2 2 2 2	3 2 3 2.8 1 1 2.8 1 2 3 1.8 3 1	1 2 1.3 1 2 1 3 1.6 1 1 3 3 3	2 1 1 2 1.4 3 2 3 1	1 1 1 1 1 1 2 2 2 3 3 3 2	1.5 2 1 2 1 3 1.8 1.8 1 1 1 1 1 1 1	2 3 3 2.8 1 1 1 3	1 1 2 1.3 2 2	2 3 2 2 1 1 1 1 1 3 3 1.4	3           2           2           2           2           2           2           1           1	3           2           2           2           2           2           2           1           1           2           1           3           2           1           3           2           1           2           2           2           2           2           1	3           1           1           1           1           1           3           1           3           1           3           2.2           2           2           2           2
333 333 333 334 335	KOE 068	VI SEM	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-5 CO-1 CO-5 CO-1 CO-5 CO-1 CO-2 CO-1 CO-1 CO-1 CO-1 CO-1 CO-2 CO-1 CO-1 CO-2 CO-1 CO-1 CO-2 CO-1 CO-2 CO-1 CO-2 CO-3 CO-4 CO-1 CO-2 CO-3 CO-4 CO-1 CO-2 CO-1 CO-2 CO-3 CO-4 CO-1 CO-2 CO-3 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-2 CO-3 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-2 CO-3 CO-4 CO-5 CO-1 CO-2 CO-3 CO-4 CO-2 CO-3 CO-4 CO-2 CO-3 CO-4 CO-2 CO-3 CO-4 CO-5 CO-4 CO-5 CO-4 CO-5 CO-4 CO-5 CO-4 CO-5 CO-3 CO-4 CO-5 CO-4 CO-5 CO-4 CO-5 CO-3 CO-4 CO-5 CO-4 CO-5 CO-4 CO-5 CO-6 CO-5 CO-6 CO-5 CO-6 CO-5 CO-6 CO-6 CO-6 CO-6 CO-6 CO-6 CO-6 CO-6	Learn how the information is processed and managed at process to process delivery. They can also demonstrate attitudes that are beneficial to r Manage to skilled with the working and practical knowledge of E-mail, FTP, Telnet, POP, DNS etc. on public and private networks. Computer Networks Understand basic of Big Data, and interpret the different related issues and application areas of Big data. Explain the concept of NoSQL, analysis of distributed model Understand the Hadoop basics, its architecture and Analyze & implementation of map-reduce functions Learn, explain and the analyse the essentials of MR1 and MR2, hadoop task scheduling,data comppression and data integrity. Understand the information of the planused to manage the software development and Hase. Big Data Differentiate between the skills and roles of functional technical managers for software efforts and their relationship with other organization Produce specific sections of the planused to manage the software development and maintenance efforts Evaluate software project management practices within an organization and recommend practical improvements based upon your evaluation. Apply schedule and cost techniques to determine a Basis of Estimate Analyze the cost benefit analysis and risk management. Software Project Management Demonstrate intercultural understanding required to effectively negotiate a diverse global society. Critically engage with the products of culture, through interpretation or creative expression. Understand diverse communities on local, national, and/or global levels. The students would be able to understand & evaluate Grievances and Grievance handling Procedure. Also they would be able to comprehend th	K3           K1           K2           K3           K4           K5           K3           K4           K2           K2           K2           K2           K2           K2           K2           K2           K2           K2	2 2 3 2.6 1 1 1 1 2 1.2 2 2	3 3 2 2.8 2 1 1 1 2 1.4 2 2 2 2 2 2	3 2 2 2 2 2 .6 1 2 2 1 3 1.8	2 2 1 1 1 3 3 2 2 2 2 2 2	3 2 3 2.8 1 1 2.8 1 2 3 1.8 3 1	1 2 1.3 1 1 2 1 3 1.6	2 1 1 2 1.4 3 2 3	1 1 1 1 1 1 1 2 2 2 3 3 3 3	1.5 2 1 2 1 3 1.8 1 1 1 3	2 3 3 2.8 1 1 1 3	1 1 2 1.3 2 2	2 3 2 2 2 2 2 2 2 2 2 2 2 1 1 1 1 3 1.4 1 1 1 1 1 1	3           2           2           2           2           2           2           1           1	3 2 2 2 2 2 2 2 2 2 2 2 2 2	3           1           1           1           1           1           3           1           3           1           3           2.2           2           2           2           2

50	KC5 051	VISEN										-		-			<del></del>			
			CO-3	Able to Understand design pratically, using an appropriate software engineering methodology.	K2		2	2	1	2	2	2		2		2	1	2	2	2
	<sup> </sup>		00.4	Software Engineering Lab		1.5	2.3	2.3	2	2	2	1.5		2	2	2	1.3	2.3	2.7	
			CO-1	Apply sorting algorithms on data sets in ML.	K3	3	3	3	3	3	1			1		1	3	3	2	-
7	KIT 651	VI SEM	CO-2 CO-3	Apply searching algorithm in ML.	K3	3	3	2	2	2				1			3	2	2	2
			CO-3	Implement and evalute the performance of KNN algorithm on different datasets.	K5															
_				Data Analytics Lab		3	3	2.5	2.5	2.5	1			1		1	3	2.5	-	
			CO-1	Able to Plan the Software Engineering process life cycle under various requirments.	K3	1	2	2	2	1	2	1		2	2		2	3	+ +	2
	KCS 653	VI SEM	CO-2	Able to transform the requirments specification into a design using UML Models.	K4	2	3	3	3	3							1	2		2 2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3
			CO-3	Able to Understand design pratically, using an appropriate software engineering methodology.	K2		2	2	1	2	2	2		2		2	1	2	-	-
_				Computer Networks Lab		1.5	2.3	2.3	2	2	2	1.5		2	2	2	1.3	2.3	2.7	-
			CO-1	Understand the basics of the theory and practice of Artificial Intelligence as a discipline and about intelligent agents.	K2	2	2	2	2	2		2		2	2	3	3	1	_	
			CO-2	Understand search techniques and gaming theory.	K4	1	2	2	3	2		2		1	2	3	3	1	2	3
			CO-3	The student will learn to apply knowledge representation techniques and problem solving strategies to common AI	K6	2	1	2	3	2		2		2	2	3	3	1	2	3
	KCS 071	VII SEM		applications.														<u> </u>	$\vdash$	<u> </u>
			CO-4	Student should be aware of techniques used for classification and clustering.	K5	2	2	2	2	1		2		2	2	3	3	1		
			CO-5	Student should be aware of the basics of pattern recognition and steps required for it.	K2	3	1	1	2	1		1		1	1	2	3	1		
_	!			Artificial Intelligence		2	1.6	1.8	2.4	1.6		1.8		1.6	1.8	2.8	3	1	2	
			CO-1	Explain the basic concepts of wireless network and wireless generations	K2	3						3						3		2
			CO-2	Demonstrate the difference wireless technologies such as CDMA, GSM, and GPRS etc	K2	2	2			2	3					1	2	3	$\vdash$	<u> </u>
	KCS 711	VII SEM	CO-3	Appraise the importance of adhoc networks such as MANET, VANET and Wireless Sensor Network.	K5		3	2	2	3	2							3		~
			CO-4	Describe and judge the emerging wireless technologies standards such as WLL, WLAN, WPAN, WMAN. Explain the design cons	K1		2	2	3	2		1		2	2			3		
			CO-5	Differentiate & support the security measures, standards, Services and layer wise security considerations	K4			1	2							2		3		
_	L			Mobile Computing		2.5	2.3	1.7	2.3	2.3	2.5	2		2	2	1.5	2	3		-
			CO-1	Describe architecture and underlying principles of cloud computing.	K2	3						3						3		2
			CO-2	Explain need, types and tools of Virtualization for cloud.	K2	2	2			2	3						2	3		
	KCS713	VII SEM	CO-3	Describe Services Oriented Architecture and various types of cloud services	K5		3	2	2	3	2							3		2
	Resilis	VII SEM	CO-4	Explain Inter cloud resources management cloud storage services and their providers Assess security services and standards for clo	K1		2	2	3	2		1		2	2			3		1
			CO-5	I am able to analyze advanced cloud technologies.	K4			1	2							2		3		1
_				Cloud Computing		2.5	2.3	1.7	2.3	2.3	2.5	2		2	2	2	2	3		1.5
			CO-1	Describe the key concepts and attributes that make a successful Entrepreneur.	K2						2	2	3		2		2	1	1	
			CO-2	Illustrate the function of an entrepreneur in a successful, commercial application of innovation.	K5						2	2	3	2	2		2			
	KHU 702	VII SEM	CO-3	Integrating the learning techniques for project planning and execution control.	K5						2	2	3	2	2	2	2	1	1	2         2           3         2           3         2           2         3           2         3           2         3           2         3           2         3           2         3           2         3           2         3           2         3           2         3           2         3           2         3           2         3           2         1           1         1           1         1           1         1           1         1           3         1           3         3           3         3           3         3           3         3           3         3           2         1           2         1           2         1           2         1           2         1           2         1           2         1           2         1           2         1
	KHU 702	VII SEM	CO-4	Identify the financing process of the entrepreneurial business.	K3	1	2				3	3					2			
			CO-5	Identify areas of our economy/society where social entrepreneurs work.	K3						3	3		2	2	2				
				Project Management : Enterpreneurship		1	2				2.4	2.4	3	2	2	2	2	1	1	
			CO-1	On completion of this course, the student will be able to Understand the about the different types of non-conventional energy reso	K2	3	1									1		3		
			CO-2	On completion of this course, the student will be able to understand the power of solar energy.	K3	2	1				1	1					2		3	
	KOE 074	VII SEM	CO-3	On completion of this course, the student will be able to Understand the Geothermal Energy, Fuel Cell and Magneto Hydrodynami	K3	3			1		1					1	1	3	2	
	KOL 0/4	VII SEM	CO-4	On completion of this course, the student will be able to understand the Therm-electric, Thermionic and Wind Power Plant.	K6	2						2		2	1			2	2	
			CO-5	On the completion of this course, the student will be able to understand the Bio-Mass, Ocean Thermal Energy ad Tidal Energy.	K.5	1		1	1	1		1		1				3	2	2 2 1 1 1.5 1 1 1 1 3 3 2 2 2 2 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1
				Renewable Energy Resources		2.2	1	1	1	1	1	1.3		1.5	1	1	1.5	2.8	2.3	
			CO-1	Understand the fundamentals of knowledge representation and inference using prolog.	K2	3	3	2	1	2				1			2	2	1	2
ļ	1/17 751 4	VII SEM	CO-2	Demonstrate working knowledge of reasoning in the presence of incomplete and/or uncertain information.	K2	3	3	1	1	1				1		1	2	2	1	2
	KIT 751A	VII SEM	CO-3	Ability to apply knowledge representation, reasoning, and machine learning techniques to real world problems.	K3	3	3	1	1	1				1		1	2	2	1	2
				Artificial Intelligence Lab		3	3	1.3	1	1.3				1		1	2	2	1	2
			CO-1	Demonstrate a sound technical knowledge regarding project problem identification and formulation.	K2	3	3	3	3	3	3	1	2	3	2	3	3	3	3	3
5			CO-2	Design engineering solutions to complex problems utilizing a systems approach.	K6	3	3	3	1	3			2	3	2	2	3	3	3	3
	KIT 753	VII SEM	CO-3	Communicate the outcome and related results regarding selected project, in written an oral forms.	K3					2			2	3	3		1	1	1	1
				Internship Assessment		3	3	3	2	2.7	3	1	2	3	2.3	2.5	2.3	2.3	2.3	2.3
			CO-1	Participate in the projects in industries during his or her industrial training.	K4	2	2	2	2	2		3	3	3	2		2	2	2	2
			CO-2	Describe use of advanced tools and techniques encountered during industrial training and visit.	K2	2	2	1		2	1	3	3	3	2	2	2	2	2	1
	KIT 752	VII SEM	CO-3	Interact with industrial personnel and follow engineering practices and discipline prescribed in industry.	K4	2	2	2	2	2		3	3	3	2	2	2		2	1
				PROJECT		2	2	1.7	2	2	1	3	3	3	2	2	2	2	2	1.3
			CO-1	Explain the concepts and importance of rural development.	K2									1						
			CO-2	Differentiate among various rural development programmes.	K4							1	1	1		1	1		1	
			CO-3	Outline the emergence and growth of Panchayati Raj Institutions in India.	K2								1	1						
				Interpret the need and elements of human resource development in the rural sector.	K2							1	1	1					<u> </u>	
	KHU 801	VIII SEM	CO-4		K2	-						1	1	1			1		+ +	
	KHU 801	VIII SEM	CO-4 CO-5	Illustrate the scope of entrepreneurship in rural area.			-					1	1			1	1	<u> </u>		
	KHU 801	VIII SEM		Illustrate the scope of entrepreneurship in rural area. Rural Development										1						
	KHU 801	VIII SEM		Rural Development	К2	2								2		•	<b></b>	<u> </u>		<u> </u>
	KHU 801	VIII SEM	CO-5 CO-1	Rural Development           Describe the concept and role of Entrepreneurship, Industrial Growth and Entrepreneurship Ecosystem	К2	2	2		2	2	1					•				_
			CO-5 CO-1 CO-2	Rural Development           Describe the concept and role of Entrepreneurship, Industrial Growth and Entrepreneurship Ecosystem           Demonstrate stage of Entrepreneurship Project and Functions Associated with Each Stage	K2 K2	1			2	2				2 2	2				1	
	KHU 801 KOE 083	VIII SEM	CO-5 CO-1 CO-2 CO-3	Rural Development           Describe the concept and role of Entrepreneurship, Industrial Growth and Entrepreneurship Ecosystem         Demonstrate stage of Entrepreneurship Project and Functions Associated with Each Stage           Articulate an Entrepreneurship Project Proposal.         Entrepreneurship Project Proposal.	K2 K2 K3	1	2		2	2	1			2	2	2	1		1	
			CO-5 CO-1 CO-2 CO-3 CO-4	Rural Development           Describe the concept and role of Entrepreneurship, Industrial Growth and Entrepreneurship Ecosystem           Demonstrate stage of Entrepreneurship Project and Functions Associated with Each Stage           Articulate an Entrepreneurship Project Proposal.           Carry out Project Planning, Monitoring and Control	K2 K2 K3 K3	1 1 1			2	2	1			2 2 2	2		1		1	
			CO-5 CO-1 CO-2 CO-3	Rural Development           Describe the concept and role of Entrepreneurship, Industrial Growth and Entrepreneurship Ecosystem           Demonstrate stage of Entrepreneurship Project and Functions Associated with Each Stage           Articulate an Entrepreneurship Orject Proposal.           Carry out Project Planning, Monitoring and Control           Assess the Project on Various Viability/Feasibility Aspects.	K2 K2 K3	1 1 1 1	1				1 1 2			2 2 2 2	1	2	1 1 1		1	
			CO-5 CO-1 CO-2 CO-3 CO-4 CO-5	Rural Development           Describe the concept and role of Entrepreneurship, Industrial Growth and Entrepreneurship Ecosystem           Demonstrate stage of Entrepreneurship Project and Functions Associated with Each Stage           Articulate an Entrepreneurship Project Proposal.           Carry out Project Planning, Monitoring and Control           Assess the Project on Various Viability/Feasibility Aspects.           Enterpreneurship Development Programme	K2 K2 K3 K3 K4	1 1 1	1 1.5		2	2	1			2 2 2	2 1 1.5		1 1 1 1		1	
3			CO-5 CO-1 CO-2 CO-3 CO-4 CO-5 CO-1	Rural Development           Describe the concept and role of Entrepreneurship, Industrial Growth and Entrepreneurship Ecosystem         Demonstrate stage of Entrepreneurship Project and Functions Associated with Each Stage           Articulate an Entrepreneurship Project Proposal.         Carry out Project Planning, Monitoring and Control           Assess the Project on Various Viability/Feasibility Aspects.         Enterpreneurship Development Programme           Explain the key concepts related to Digital Marketing and Consumer's behavior.         Enterpreneurship Development Programme	K2 K2 K3 K3 K4 K2	1 1 1 1	1			2	1 1 2	2		2 2 2 2 2 2 2 2 2	1 1.5	2	1 1 1 1 2		1 1 1	
			CO-5 CO-1 CO-2 CO-3 CO-4 CO-5	Rural Development           Describe the concept and role of Entrepreneurship, Industrial Growth and Entrepreneurship Ecosystem           Demonstrate stage of Entrepreneurship Project and Functions Associated with Each Stage           Articulate an Entrepreneurship Project Proposal.           Carry out Project Planning, Monitoring and Control           Assess the Project on Various Viability/Feasibility Aspects.           Enterpreneurship Development Programme	K2 K2 K3 K3 K4	1 1 1 1	1 1.5	2			1 1 2			2 2 2 2	1	2	1 1 1 1		1 1 1	

1 /1 1	- KLIE INA	VIII SEMI																			
1	ROE 074	VIII SEM	CO-4	Differentiate the role & relationship between organizational design and digital transformation	K4		2	2				2					2				
			CO-5	Explain the Digital Trends of Past & Future	K2							2					2				
				Digital And Social Media Marketing			2	2		2		2		2	2	1	2				
			CO-1	Demonstrate a sound technical knowledge regarding project problem identification and formulation.	K2	3	3	3	3	3	3	1	2	3	2	3	3	3	3	3	
50	KIT 851	VIII SEM	CO-2	Design engineering solutions to complex problems utilizing a systems approach.	K6	3	3	3	1	3			2	3	2	2	3	3	3	3	
50	K11 051	VIII SEM	CO-3	Communicate the outcome and related results regarding selected project, in written an oral forms.	K4					2			2	3	3		1	1	1	1	
				Project		3	3	3	2	2.7	3	1	2	3	2.3	2.5	2.3	2.3	2.3	2.3	