Statements of Course Outcomes (COs) and Mapping with Program Outcomes (POs) and Program Specific Outcomes (PSOs) : Dept. of Inromation Technology : 2019-23
(Batch passed-out in 2023; 2019-23) BKL # K1 – Remember, K2 – Understand, K3 – Apply, K4 – Analyze, K5 – Evaluate, K6 – Create

S. No.	Sub Code	Sem	COx	Statement of Course Outcomes (COs)	Kx	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
				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
1	**KOE038**	**III**	CO-1	Identify schematic symbols and understand the working principles of electronic devices e.g. Diode, Special Purpose Diodes, Zener Diode and to analyze the working of electronic circuits like Rectifier, Clamper, Clipper, Multiplier etc. and to test different small electronic circuits.	K2	3	1	1	1	2			1	2		2
			CO-2	Identify schematic symbols and understand the working principles of transistors BJT and FET etc. and to analyze the working of BJT and FET Amplifiers etc.	K3	3	1	1	1	2			1	2		1
			CO-3	Identify and understand symbol, practical circuit and various parameters of OP-AMP and also apply OP-AMP principles to design different applications like adder, subtractor, integrator, and differentiator etc and analyze the output.	K3	2	1	1	1	1				2		1
			CO-4	Understand the purpose of power supplies, measuring instruments like DVM, DMM, CRO and DSO and to measure various parameters with the help of them.	K3	2	1	1	1					2		2
			CO-5	Understand the principles of analog communication system, modulation & demodulation techniques and to evaluate power requirements, depth of modulation, and bandwidth for various analog modulation schemes required in communication.	K2	2	1	1	1					2		2
			Electronics Engineering			**2.4**	**1.0**	**1.0**	**1.0**	**1.7**			**1.0**	**2.0**		**1.6**
2	**KAS301**	**III**	CO-1	Students will be enabled to understand the nature and objective of Technical Communication relevant for the work place as engineers.	K2	1				1	2		3		3	
			CO-2	Students will utilize the technical writing for the purpose of Technical Communication and its exposure in various dimensions.	K3	2	2	3		2						
			CO-3	Students would embible inputs by presentation skills to enhance confidence in face of diverse audience.	K2	3		1		2	3				3	
			CO-4	Technical communication skills will create a vast know-how of the application of the learning to promote their technical competence.	K6	3	2	3		2		2			3	
			CO-5	It would enable them to evaluate their efficacy as fluent and efficient communicators by learning the voice-dynamics.	K2	3				2	3	-			3	
			Technical Communication			**2.4**	**2.0**	**2.3**		**1.8**	**2.7**	**2.0**	**3.0**		**3.0**	
3	**KCS301**	**III**	CO-1	Apply the concepts of arrays and linked list.	K2	3	1	1	1	2				1		2
			CO-2	Apply the concepts of Stack , Queue and formulate the solution using recursion in solving various problems.	K3	3	2	1	2	2				1		2
			CO-3	Design and apply tree concepts for solving computational problems.	K3	3	1	1	1	2				1		2
			CO-4	Analyze the various path searching algorithms using the concepts of graph.	K3	3	2	1	1	2				1		2
			CO-5	Implement different searching , sorting and Hashing techniques.	K2	2	1	1	2	2				1		2
			Data Structures			**2.80**	**1.40**	**1.00**	**1.40**	**2.00**				**1.00**		**2.00**

4	**KCS302**	**III**	CO-1	Understand the basic structure, operation of computer & its components.	K2	1	1	1	1	1					1	1
			CO-2	Understand the different ways of communication among CPU, memory and I/O devices.	K2	2	1	2	2	3					3	2
			CO-3	Understand the parameters for the design of memory unit, control unit, ISA and different	K2	3	3	1	3	3					3	3
			CO-4	Apply thye different algorithms for arithmetic operations and different instruction formats.	K3	3	3	1	3	3					3	2
			CO-5	Compute the performance of different pipeline techniques.	K3	3	2	1	2	3					3	3
			Computer Organization & Architectures			**2.40**	**2.00**	**1.20**	**2.20**	**2.60**					**2.60**	**2.20**
5	**KCS303**	**III**	CO-1	Students will be able to define & explain the fundamentals of set theory, algebraic structures,	K1	3	1	2	3	1	1			1		
			CO-2	Students will be able to apply the concept of mathematical logic to write a valid argument.	K3	1	1			1				1		
			CO-3	Students will be able to differentiate the use of different algebraic structures.	K4	3	2	2		1				1		
			CO-4	Students will be able to select the appropriate logic gate to make circuit diagram of various	K3	3	3	3	2	1				1		
			CO-5	Students will be able to evaluate a function using various methods of solving a recurrence	K5	2	3	3		1				1		
			Discrete Mathematics			**2.40**	**2.00**	**2.50**	**2.50**	**1.00**	**1.00**			**1.00**		
6	**KNC301**	**III**	CO-1	Develop familiarity with and understanding of hot issues in computer and network security	K6	3	2	2	2	2	1			1		
			CO-2	Explain various possible exploits, recreate cyber attacks on browsers, and servers with existing	K2	3	2	1	1					1		
			CO-3	Gain hands-on experience with attack and defence techniques	K2	3	2	2	1					1		
			CO-4	Articulate the urgent need for cybersecurity in critical computer systems, networks, and the	K3	3	3	3	1					1		
			CO-5	Boost Students hireability through innovative and independent learning.	K3	2	3	3	3	3				1		
			Computer Syster Security			**2.80**	**2.40**	**2.20**	**1.60**	**2.50**	**1.00**			**1.00**		
7	**KCS351**	**III**	CO-1	To implement the given problem using array.	K3	3	1	1	2	2		1		2	1	2
			CO-2	To implement the given problem using link list.	K3	3	1	1	2	2		1		2	1	2
			CO-3	To apply searching and sorting algorithms on the given data sets.	K3	3	1	1	2	2		1		2	1	2
			Data Structures Lab			**3.00**	**1.00**	**1.00**	**2.00**	**2.00**		**1.00**		**2.00**	**1.00**	**2.00**
8	**KCS352**	**III**	CO-1	Implementing electronic circuits using basic gates.	K3	1	1							1		
			CO-2	Verify the excitation tables of variuos logic circuits.	K2	2	1	2	2					2		
			CO-3	Design the control unit of a computer using either hardwiring or microprogramming based on	K3	1		2	1	1				1		1
			Computer Organization & Architectures Lab			**1.30**	**1.00**	**2.00**	**1.50**	**1.00**				**1.30**		**1.00**
9	**KCS353**	**III**	CO-1	Understand the notion of mathematical thinking, mathematical proofs and algorithm thinking	K2	2										
			CO-2	Apply the methods for discrete mathematics in problem solving by implementing them.	K3	3	2	2	1	2			1			
			CO-3	Demonstrate effectively algebraic techniques to analyze basic discrete structure and algorithm.	K2	3			3	2	2		1			
			Discrete Mathematics Lab			**2.70**	**2.00**	**2.00**	**2.00**	**2.00**	**2.00**		**1.00**			
10	**KCS354**	**III**	CO-1	To understand and able to practice acquired knowledge within the chosen area of technology	K2	2	1	2			2	1			2	
			CO-2	Discuss and Justify the Technical aspects of the chosen project with a comprehensive and	K2	2	2	2	2		2	2	2	2	2	
			CO-3	Able to work on hands-on projects on latest technology and justify how to work with different	K2	2	2	2	1		2	2	1		2	1
			Mini Project			**2.00**	**1.70**	**2.00**	**1.50**		**2.00**	**1.70**	**1.50**	**2.00**	**2.00**	**1.00**
11	**KAS402**	IV	CO-1	To learn the concepts limit, continuity, differentiability and integration in complex number	K2	3			1	1			2			2
			CO-2	To understand the concepts of mathematical statistics e. g. correlation, regression , curve	K2	2	3	3	2	2	1	2	2			2
			CO-3	To apply the iterative methods e. g. Newton Raphson method, Regula falsi etc to solve non	K3	3		2	2	3		1				2
			CO-4	To understand various interpolation formulae for equal time interval as well as unequal	K2	2	3	3	2	2	1	3	2			3
			CO-5	To understand the concept of different types of Fourier transforms and to apply these in Heat,	K2	2		2	2	3				1	1	3

			Maths IV			**2.40**	**3.00**	**2.50**	**1.80**	**2.20**	**1.00**	**2.00**	**2.00**	**1.00**	**1.00**	**2.40**
12	KVE401	IV	CO-1	Students will be able to understand about the need of value education and harmony in self,	K2							2	3	3		
			CO-2	Students will be able to apply the understanding of value education to ensure harmony at all	K3							2	3	3		
			CO-3	Students will be able to analyze about self, feelings in relationship, society and relevence of	K4							2	3	3		
			CO-4	Students will be able to evaluate their participation at all the four levels of living.	K5							2	3	3		
			CO-5	Students will be able to improve their emotional, social and professional competence.	K4							2	3	3		
			Universal Human Values									**2.00**	**3.00**	**3.00**		
13	KCS401	IV	CO-1	Understand the basic concept of Operating system.	K2	2	1	1	1	2		1		1	1	2
			CO-2	Discuss concurrent processes and their execution.	K2	3	2	1	2	2		1		1	1	2
			CO-3	Analyze the concept of process scheduling and deadlock.	K4	3	1	1	1	2		1		1	1	2
			CO-4	Select different approaches of memory management techniques.	K1	3	2	1	1	2		1		1	1	2
			CO-5	Apply the concepts of disk scheduling.	K3	2	1	1	2	2		1		1	1	2
			Operating System			**2.60**	**1.40**	**1.00**	**1.40**	**2.00**		**1.00**		**1.00**	**1.00**	**2.00**
14	KCS402	IV	CO-1	able to understand and construct finite state machines	K2	2	2	1	2	1	1					
			CO-2	able to prove the equivalence of languages described by finite state machines and regular	K5	2	2	1	2	1						
			CO-3	able to construct pushdown automata and the equivalent context free grammars	K6	2	2	1	2	1						
			CO-4	able to prove the equivalence of languages described by pushdown automata and context free	K5	3	2	2	2	1						
			CO-5	able to construct Turing machines and Post machines.	K6	3	3	2	2	1	1					
			Theory of Automata and Format Lanaguage			**2.40**	**2.20**	**1.40**	**2.00**	**1.00**	**1.00**					
15	KIT401	IV	CO-1	To introduce the fundamentals of Internet, and the principles of web design	K1	3	3	3		2				1		
			CO-2	Visualize and Recognize the basic concept of HTML and application in web designing.	K3	3	3	3		3	1			2	2	
			CO-3	To construct basic websites using HTML and Cascading Style Sheets.	K6	2	2	2		3	2					
			CO-4	To build dynamic web pages with validation using Java Script objects and by applying	K6	2	2	2		3				2		
			CO-5	Introduce basics concept of Web Hosting and apply the concept of SEO	K3	3	2	3		3	2			2		
			Web Desiging			**2.60**	**2.40**	**2.60**		**2.80**	**1.70**			**1.80**	**2.00**	
16	KNC402	IV	CO-1	To Understand the concepts of python programming.	K2	2		2								
			CO-2	To Understand the use of python data structures.	K2	3		2	2							
			CO-3	To Implement the programs using the functions, higher order function and recursions.	K3	2		2			2					
			CO-4	To apply file handling techniques, Modules, Exception Handing and concepts of OOPS.	K3	2	2	2								
			CO-5	To implement searching, sorting, merging, Sieve of Eartosthenes algorithms.	K3	3		3	2		2					
			Python Programming			**2.40**	**2.00**	**2.20**	**2.00**		**2.00**					
17	KCS451	IV	CO-1	Implement CPU Scheduling algorithms.	K3	3	2	1	3	3		1		1	2	3
			CO-2	Imlpement the page replacement algorithms.	K3	3	2	1	3	3		1		1	2	3
			CO-3	Implement the disk scheduling algorithms.	K3	3	2	1	3	3		1		1	2	3
			Operating System Lab			**3.00**	**2.00**	**1.00**	**3.00**	**3.00**		**1.00**		**1.00**	**2.00**	**3.00**
18	KIT451	IV	CO-1	Student will be able to recollect the concepts of HTML and JavaScript that are vital in	K1	3	3	2	2	2	1			1		1
			CO-2	Student shall demonstrate knowledge of languages, mark up tags, and good coding practices	K2	3	3	2	2	2				1		
			CO-3	Student shall analyze given assignment to select sustainable web development and design	K4	3	3	1	2	2				1		1
			Web Desiging Lab			**3.00**	**3.00**	**1.70**	**2.00**	**2.00**	**1.00**			**1.00**		**1.00**

19	KCS453	IV	CO-1	Apply basic concepts of python.	K3	1	1							1		
			CO-2	Apply sorting algorithm on data sets in python.	K3	2	1	2	2					2		
			CO-3	Apply searching algorithm in python.	K3	1		2	1	1				1		1
			Python Language Programming Lab			**1.30**	**1.00**	**2.00**	**1.50**	**1.00**				**1.30**		**1.00**
20	KCS501	V	CO-1	Understand the different issues involved in the design and implementation of database system	K2	3										
			CO-2	Apply database queries in SQL, Relational algebra, E-R Diagram, tuple and domain calculus.	K3	3	2									
			CO-3	Apply normalization techniques.	K3	3	2									
			CO-4	Examine the concepts of transaction processing and distributed database	K4	3	2	2			2	2				
			CO-5	Compare the concurrency control protocols	K4	3					2	2				
			Database Management System			**3.00**	**2.00**	**2.00**			**2.00**	**2.00**				
21	KIT501	V	CO-1	To understand concepts of web technology.	K2	3	3									
			CO-2	To design graphical user interface using concepts of various web designing languages.	K6	3	3				3					
			CO-3	To develop interactive webpages using client side scripting.	K6	3	3									
			CO-4	To create the linkage between database and web pages.	K6	3										
			CO-5	To create session using server side scripting language viz. ASP, JSP and PHP.	K6	3					3					
			Web Technology			**3.00**	**3.00**				**3.00**					
22	KCS503	V	CO-1	Design new algorithms, prove them correct, and analyze their asymptotic and absolute runtime	K6	3	3						3	3		
			CO-2	To analyze the DAA performance Find an algorithm to solve the problem (create) and prove	K4	3	3						3	3		
			CO-3	Understand the mathematical criterion for deciding whether an algorithm is efficient, and	K2	3	3						3	3		
			CO-4	Apply classical sorting, searching, optimization and graph algorithms	K3											
			CO-5	Understand basic techniques for designing algorithms, including the techniques of recursion,	K2											
			Design And Analysis of Algorithm			**3.00**	**3.00**						**3.00**	**3.00**		
23	KCS054	V	CO-1	Demonstrate the concept of visual modelling using UML.	K2	3										
			CO-2	Construct the applications for a range of problems using object-oriented programming	K6	3	2									
			CO-3	Analysis software patterns in OOD for recognize its applicability to other software	K4	3	2									
			CO-4	Use a CASE tool to Evaluate appropriate analysis / design diagrams addressing a clearly	K4	3	2	2			2	2				
			CO-5	Implement C++ programs for complex problems, making good use of the features of the	K3	3					2	2				
			Object Oriented System Design			**3.00**	**2.00**	**2.00**			**2.00**	**2.00**				
24	KCS058	V	CO-1	To Understand and analyze the common methods in the user-centered design process and the	K2	3										
			CO-2	To Understand the classic design standards, Guidelines and patterns.	K2	3	2									
			CO-3	To Understand the screen designs, information retrievals, statistical graphics and interface	K2	3	2									
			CO-4	To Understand the selection of windows, Device based and Screen based control with the use	K2	3	2	2			2	2				
			CO-5	To Understand the concepts of pointing devices, Speech recognition and Drivers. Apply	K2	3					2	2				
			Human Computer Interface			**3.00**	**2.00**	**2.00**			**2.00**	**2.00**				
25	KNC 501	V	CO-1	To understand the basic feature and modalities of the Indian Constitution	K2						2	2	3		2	
			CO-2	To differentiate and relate the functionin g of the Indian Parlia ment System at National and	K4			2			2	2	3	2	2	
			CO-3	To differentiate different aspects of INDIAN Legal Sytem and its related Bodies	K4	2		2			2	2	3	2	2	2
			CO-4	To discuss different Laws and regulation related to Engineerin g practices	K3	2	2	2	2		3	3				
			CO-5	To understand the role of Engineers in different organisation and e- governance	K2	2		2			3	3		2	2	2

			Constitution of India			**2.00**	**2.00**	**2.00**	**2.00**		**2.40**	**2.40**	**3.00**	**2.00**	**2.00**	**2.00**
26	KCS551	V	CO-1	Design an information model expressed in the form of ER diagram.	K6	2	2	1			1		1	3	3	2
			CO-2	Apply SQL queries to implement and manipulate the database and provide different	K3	2	2				1			3	2	2
			CO-3	Apply structured query language to automate the real time problems of databases,	K3	2	1				1		1	3	2	2
			Database Management System Lab			**2.00**	**1.70**	**1.00**			**1.00**		**1.00**	**3.00**	**2.30**	**2.00**
27	KIT551	V	CO-1	Able to design static web page and apply style sheets to web page.	K6	3	3	3	2	2	1			1		1
			CO-2	Able to perform client side validation and create basic bean using JAVA.	K6	3	3	3	2	2				1		
			CO-3	Able to create XML file with the help of DTD.	K6	3	3	3	2	1				1		1
			Web Technology Lab			**3.00**	**3.00**	**3.00**	**2.00**	**1.70**	**1.00**			**1.00**		**1.00**
28	KCS553	V	CO-1	Implement algorithm to solve problems by iterative approach	K6	3	3	2	2	2	1			1		1
			CO-2	Implement algorithm to solve problems by divide and conquer approach and Greedy algorithm	K6	3	3	2	2	2				1		
			CO-3	Implement algorithm to solve problems by Dynamic programming,backtracking and branch	K6	3	3	1	2	2				1		1
			Design And Analysis of Algorithm Lab			**3.00**	**3.00**	**2.00**	**2.00**	**2.00**	**1.00**			**1.00**		**1.00**
29	KCS554	V	CO-1	To understand and able to practice acquired knowledge within the chosen area of technology	K2	2	1	2			2	1			2	
			CO-2	Discuss and Justify the Technical aspects of the chosen project with a comprehensive and	K2	2	2	2	2		2	2	2	2	2	
			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
			Mini Project			**2.00**	**1.70**	**2.00**	**1.50**		**2.00**	**1.70**	**1.50**	**2.00**	**2.00**	**1.00**
30	KCS601	VI	CO-1	Understand the concept of SDLC through analysis of various implemantation methods and	K2	3	2	1				1	1			
			CO-2	Apply requirments elicitation to create SRS document and their parameter specification after	K3	2	3	3	2	2	2	2	1	3	2	
			CO-3	Understand and apply the design process of software devlopment and its metrics.	K2	3	2	3	2	2	2			2	2	
			CO-4	Test the devloped Software while applying the different test strategies.	K3	3	2			2	1					2
			CO-5	Application of post Implementation measure to combat cost issue while suggesting corrective	K6	3			2	1		1		2		2
			Software Engineering			**2.80**	**2.30**	**2.30**	**2.00**	**1.80**	**1.70**	**1.30**	**1.00**	**2.30**	**2.00**	**2.00**
31	KIT601	VI	CO-1	Understand the concept of decision making and simluation and modeling techniques.	K2	1	2	1	1	1	1	2	1	2	1	1
			CO-2	Student will able to analyze and manipulate the data and also able to learn new data analysis	K4	1	1	2	1	1	1	1		1		
			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
			CO-4	Understand the term Artificial intelligence. Also able to learn and implement vaious AI	K2	1	1	1	3	2	1	1	1	1	1	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
			Data Analytics			**1.20**	**1.40**	**1.80**	**2.00**	**1.80**	**1.60**	**1.40**	**1.00**	**1.80**	**1.50**	**1.30**
32	KCS603	VI	CO-1	Understand the practical meaning and importance of 'Computer Networks'. Familiar with how	K2	3	3	3	1	3	1	1	1	1	3	
			CO-2	Able to grasp the significance of error control and error correction protocols, flow control,	K4	3	3	3	3	3	1				3	
			CO-3	Apply the concepts of IP and other protocols in network layer for smooth functioning and	K3	2	3	3	2	3				2	2	
			CO-4	Learn how the information is processed and managed at process to process delivery. They can	K1	2	3	2	2	2	1				3	
			CO-5	Manage to skilled with the working and practical knowledge of E-mail, FTP, Telnet, POP,	K2	3	2	2	1	3	2				3	
			Computer Networks			**2.60**	**2.80**	**2.60**	**1.80**	**2.80**	**1.30**	**1.00**	**1.00**	**1.50**	**2.80**	
33	KCS061	VI	CO-1	Understand basic of Big Data, and interpret the different related issues and application areas of	K2	1	2	1	1	1	1	2	1	2	1	1
			CO-2	Explain the concept of NoSQL, analysis of distributed model	K2	1	1	2	1	1	1	1		1		
			CO-3	Understand the Hadoop basics, its architecture and Analyze & implementation of map-reduce	K2	1	1	2	3	2	2	1	1	2	1	1
			CO-4	Learn, explain and the analyse the essentials of MR1 and MR2, ,hadoop task scheduling,data	K2	1	1	1	3	2	1	1	1	1	1	1

			CO-5	Understand and implement Hadoop tools, including Hive, Pig, Cassandra and Hbase.	K2	2	2	3	2	3	3	2	1	3	3	2
			Big Data			**1.20**	**1.40**	**1.80**	**2.00**	**1.80**	**1.60**	**1.40**	**1.00**	**1.80**	**1.50**	**1.30**
34	KOE068	VI	CO-1	Differentiate between the skills and roles of functional and technical managers for software	K4											
			CO-2	Produce specific sections of the plan used to manage the software development and	K5	2	2		2							2
			CO-3	Evaluate software project management practices within an organization and recommend	K5	2				3						2
			CO-4	Apply schedule and cost techniques to determine a Basis of Estimate..	K3		2		2	1						
			CO-5	Analyze the cost benefit analysis and risk management.	K4		2	2	2				2			
			Software Project Management			**2.00**	**2.00**	**2.00**	**2.00**	**2.00**			**2.00**			**2.00**
35	KNC602	VI	CO-1	Demonstrate intercultural understanding required to effectively negotiate a diverse global	K2						1	3	3	1		
			CO-2	Critically engage with the products of culture, through interpretation or creative expression.	K3								3	1		
			CO-3	Understand diverse communities on local, national, and/or global levels.	K2						3	2				
			CO-4	The students would be able to understand & evaluate Grievances and Grievance handling	K2							3	3	3		
			CO-5	Examine social and political structures in contemporary India	K5						3	1	2	1		
			Indian Tradition, Culture & Society								**2.30**	**2.30**	**2.80**	**1.50**		
36	KCS651	VI	CO-1	Able to Plan the Software Engineering process life cycle under various requirments.	K3	1	2	2	2	1	2	1		2	2	
			CO-2	Able to transform the requirments specification into a design using UML Models.	K4	2	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
			Software Engineering Lab			**1.50**	**2.30**	**2.30**	**2.00**	**2.00**	**2.00**	**1.50**		**2.00**	**2.00**	**2.00**
37	KIT651	VI	CO-1	Apply sorting algorithms on data sets in ML.	K3	3	3	3	3	3	1			1		1
			CO-2	Apply searching algorithm in ML.	K3	3	3	2	2	2				1		
			CO-3	Implement and evalute the performance of KNN algorithm on different datasets.	K5											
			Data Analytics Lab			**3.00**	**3.00**	**2.50**	**2.50**	**2.50**	**1.00**			**1.00**		**1.00**
38	KCS653	VI	CO-1	Able to Plan the Software Engineering process life cycle under various requirments.	K3	1	2	2	2	1	2	1		2	2	
			CO-2	Able to transform the requirments specification into a design using UML Models.	K4	2	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
			Computer Networks Lab			**1.50**	**2.30**	**2.30**	**2.00**	**2.00**	**2.00**	**1.50**		**2.00**	**2.00**	**2.00**
39	KCS071	VII	CO-1	Understand the concept of Artificial intelligence and classify the different types of AI agents.	K2	2	2	2	2	2		2		2	2	3
			CO-2	Analysis the different AI search algorithms.	K4	1	2	2	3	2		2		1	2	3
			CO-3	Formulate the necessity of knowledge representation and experiment the presence of	K6	2	1	2	3	2		2		2	2	3
			CO-4	Examine reasoning and evaluate machine learning techniques regarding Classification and	K5	2	2	2	2	1		2		2	2	3
			CO-5	Understand the concept of pattern recognition and demonstrate the estimation methods and its	K2	3	1	1	2	1		1		1	1	2
			Artificial Intelligence			**2.00**	**1.60**	**1.80**	**2.40**	**1.60**		**1.80**		**1.60**	**1.80**	**2.80**
40	KCS711	VII	CO-1	Explain the basic concepts of wireless network and wireless generations.	K2	3						3				
			CO-2	Demonstrate the difference wireless technologies such as CDMA, GSM, and GPRS etc.	K2	2	2			2	3					1
			CO-3	Appraise the importance of adhoc networks such as MANET, VANET and Wireless Sensor	K5		3	2	2	3	2					
			CO-4	Describe and judge the emerging wireless technologies standards such as WLL, WLAN,	K1		2	2	3	2		1		2	2	
			CO-5	Differentiate and support the security measures, standards, Services and layer wise security	K4			1	2							2
			Mobile Computing			**2.50**	**2.30**	**1.70**	**2.30**	**2.30**	**2.50**	**2.00**		**2.00**	**2.00**	**1.50**
			CO-1	Describe the key concepts and attributes that make a successful Entrepreneur.	K2						2	2	3		2	

41	KHU702	VII	CO-2	Illustrate the function of an entrepreneur in a successful,commercial application of innovation.	K5						2	2	3	2	2	
			CO-3	Integrating the learning techniques for project planning andexecution control.	K5						2	2	3	2	2	2
			CO-4	Identify the financing process of the entrepreneurial business.	K3	1	2				3	3				
			CO-5	Identify areas of our economy/society where social entrepreneurs work.	K3						3	3		2	2	2
			Project Management : Enterpreneurship			**1.00**	**2.00**				**2.40**	**2.40**	**3.00**	**2.00**	**2.00**	**2.00**
42	KOE074	VII	CO-1	Interpret basics of non conventional energy resources for society	K2	3	1									1
			CO-2	Identify the importance of geo thermal energy	K3	2	1				1	1				
			CO-3	Compare between flat plate and focusing of collectors in solar thermal energy	K3	3			1		1					1
			CO-4	Design the Thermo-electrical and thermionic Conversions for wind energy	K6	2						2		2	1	
			CO-5	Justify the requirements of fuel cells for energy generation	K5	1		1	1	1		1		1		
			Renewable Energy Resources			**2.20**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.30**		**1.50**	**1.00**	**1.00**
43	KIT751A	VII	CO-1	Understand the fundamentals of knowledge representation and inference using prolog.	K2	3	3	2	1	2				1		
			CO-2	Demonstrate working knowledge of reasoning in the presence of incomplete and/or uncertain	K2	3	3	1	1	1				1		1
			CO-3	Ability to apply knowledge representation, reasoning, and machine learning techniques to real	K3	3	3	1	1	1				1		1
			Artificial Intelligence Lab			**3.00**	**3.00**	**1.30**	**1.00**	**1.30**				**1.00**		**1.00**
44	KIT752	VII	CO-1	Demonstrate a sound technical knowledge regarding project problem identification and	K2	3	3	3	3	3	3	1	2	3	2	3
			CO-2	Design engineering solutions to complex problems utilizing a systems approach.	K6	3	3	3	1	3			2	3	2	2
			CO-3	Communicate the outcome and related results regarding selected project, in written an oral	K3					2			2	3	3	
			Internship Assessment			**3.00**	**3.00**	**3.00**	**2.00**	**2.70**	**3.00**	**1.00**	**2.00**	**3.00**	**2.30**	**2.50**
45	KIT753	VII	CO-1	Participate in the projects in industries during his or her industrial training.	K4	2	2	2	2	2		3	3	3	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
			CO-3	Interact with industrial personnel and follow engineering practices and discipline prescribed in	K4	2	2	2	2	2		3	3	3	2	2
			PROJECT			**2.00**	**2.00**	**1.70**	**2.00**	**2.00**	**1.00**	**3.00**	**3.00**	**3.00**	**2.00**	**2.00**
46	KHU801	VIII	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
			CO-3	Outline the emergence and growth of Panchayati Raj Institutions in India.	K2								1	1		
			CO-4	Interpret the need and elements of human resource development in the rural sector.	K2							1	1	1		
			CO-5	Illustrate the scope of entrepreneurship in rural area.	K2							1	1	1		
			Rural Development									**1.00**	**1.00**	**1.00**		**1.00**
47	KOE083	VIII	CO-1	Describe the concept and role of Entrepreneurship, Industrial Growth and Entrepreneurship	K2	2								2		
			CO-2	Demonstrate stage of Entrepreneurship Project and Functions Associated with Each Stage	K2	1	2		2	2	1			2		
			CO-3	Articulate an Entrepreneurial Project Proposal.	K3	1	1				1			2	2	2
			CO-4	Carry out Project Planning, Monitoring and Control	K3	1					1					
			CO-5	Assess the Project on Various Viability/Feasibility Aspects.	K4	1					2			2	1	
			Enterpreneurship Development Programme			**1.20**	**1.50**		**2.00**	**2.00**	**1.30**			**2.00**	**1.50**	**2.00**
48	KOE094	VIII	CO-1	Explain the key concepts related to Digital Marketing and Consumer's behavior.	K2		2					2				
			CO-2	Describe the role of Social Media Marketing in Digital Marketing.	K2			2		2				2	2	
			CO-3	Describe various tools of Digital Marketing.	K2		2			2					2	1
			CO-4	Differentiate the role & relationship between organizational design and digital transformation	K4		2	2				2				

			CO-5	Explain the Digital Trends of Past & Future	K2							2					
			Digital And Social Media Marketing				**2.00**	**2.00**		**2.00**		**2.00**		**2.00**	**2.00**	**1.00**
49	KIT851	VIII	CO-1	Demonstrate a sound technical knowledge regarding project problem identification and	K2	3	3	3	3	3	3	1	2	3	2	3
			CO-2	Design engineering solutions to complex problems utilizing a systems approach.	K6	3	3	3	1	3			2	3	2	2
			CO-3	Communicate the outcome and related results regarding selected project, in written an oral	K4					2			2	3	3	
			Project			**3.00**	**3.00**	**3.00**	**2.00**	**2.70**	**3.00**	**1.00**	**2.00**	**3.00**	**2.30**	**2.50**

PO12	PSO 1	PSO 2	PSO 3	PSO 4
Life Long Learning				
1	1	2	1	
1	1	2	1	
1		1	1	
1		1	1	
1		2	1	
1.0	**1.0**	**1.6**	**1.0**	
3	2		2.00	
3	2	2.00		
3	2	2.00	3.00	
3	2	1.00	2.00	
3	2		2.00	
3.0	**2.0**	**1.7**	**2.3**	
2	1	3.00	3.00	
2	1	3.00	3.00	
3	1	3.00	3.00	
3	1	3.00	3.00	
3	1	3	3	
2.60	**1.00**	**3.00**	**3.00**	

3	1	1.00	2.00	
2	2	3.00	2.00	
3	2	3.00	3.00	
2	2	3.00	2.00	
3	2	3	3	
2.60	**1.80**	**2.60**	**2.40**	
1	2			
1	2		2.00	
1	2			
1	2			
1	3	2.00		
1.00	**2.20**	**2.00**	**2.00**	
1	3	2.00	2.00	
1	3			
1	3	2.00	1.00	
1	3			
1	3	2.00	2.00	
1.00	**3**	**2.00**	**2.00**	
3	1	3.00	3.00	
2	1	3.00	3.00	
3	1	3.00	3.00	
3.00	**1**	**3**	**3**	
2		1.00	1.00	
	2		1.00	
2.00	**2**	**1**	**1**	
	1			
1	2			
1	1	1.00		
1.00	**1.3**	**1.00**		
3	3	3.00		
3	3	3.00	2.00	
3	3	3.00	2.00	
3.00	**3**	**3.00**	**2.00**	
	3	3.00		
	3			
	3	2.00		
1	2		2	

1.00	**2.75**	**2.5**	**2**	
3				
3				
3				
3				
3				
3.00				
2	1	3.00	3.00	
2	2	3.00	3.00	
3	1	3.00	3.00	
3	1	3.00	3.00	
3	1	3.00	3.00	
2.60	**1.2**	**3.00**	**3.00**	
2	1	1.00	1.00	
1	1	1.00	1.00	
2	2	1.00	2.00	
1	2	1.00	2.00	
2	3	1.00	2.00	
1.60	**1.8**	**1.00**	**1.60**	
1	3	3.00	3.00	
2	3	3.00	3.00	
1	2	2.00	1.00	
	2	2.00	1.00	
	3	2	3	
1.30	**2.6**	**2.4**	**2.2**	
	2			
2	2			
2		2.00	3.00	
2	2			
2	2	2	2	
2.00	**2**	**2**	**2.5**	
3	1	3.00	3.00	
3	1	3.00	3.00	
3	1	3.00	3.00	
3.00	**1**	**3.00**	**3.00**	
3	3	2.00	2.00	
3	2	2.00	2.00	
3	2	2.00	2.00	
3.00	**2.3**	**2.00**	**2.00**	

2		1.00	1.00	
	2		1.00	
2.00	**2**	**1**	**1**	
	3	2.00		
	3		2.00	
	2	2.00		
	3		2.00	
	2			
	2.8	1.3	1.3	
3	3	2.00		
3	2			
3	3	2.00		
3	3		2.00	
3	3		2.00	
3.00	2.8	1.30	1.30	
3	3	2.00		
3	3		2.00	
3	3	2.00		
	3		2.00	
	3		2.00	
3.00	3	1.30	2.00	
	2			
	2			
	3			
	3			
	3			
	2.6			
	2			
	2			
	1.3			
2	1	1.00	2.00	
2	2	1.00		
2	1	1.00		
2	2	1.00		
	2	1.00		

2.00	**1.6**	**1.00**	**2.00**	
2	3	1.00	2.00	
2	2	1.00	2.00	
2	2	1.00	2.00	
2.00	**2.3**	**1.00**	**2.00**	
3	3	2.00	2.00	
3	2	2.00	2.00	
3	2	2.00	2.00	
3.00	**2.3**	**2**	**2**	
3	3	2.00	2.00	
3	2	2.00	2.00	
3	2	2.00	2.00	
3.00	**2**	**2**	**2**	
3	3	3.00		
3	3	3.00	2.00	
3	3	3.00	2.00	
3.00	**3**	**3.00**	**2.00**	
1	1	3.00		
2	1	3.00	2.00	
2		3.00	2.00	
2	2	3.00	2.00	
		3.00		
1.80	**1.3**	**3.00**	**2.00**	
1	2	1.00	1.00	
1	1	1.00	3.00	
1	3	2.00	3.00	
1	2	1.00	1.00	
3	3	3	3	
1.40	**2.2**	**1.6**	**2.2**	
2	2	2.00	3.00	
2	3	3.00	3.00	
3	2	3.00	1.00	
2	2	2.00	1.00	
2	2	2	1	
2.20	**2.2**	**2.4**	**1.8**	
1	2	1.00	1.00	
1	1	1.00	3.00	
1	3	2.00	3.00	
1	2	1.00	1.00	

3	3	3.00	3.00	
1.40	**2.2**	**1.60**	**2.20**	
		2.00		
		2.00		
	1		2.00	
		1.00	2.00	
	1	**1.70**	**2.00**	
1				
1				
1				
1.00				
2	3	3.00	2.00	
1	2	3.00		
1	2	2.00	2.00	
1.30	**2.3**	**2.7**	**2**	
3	3	2.00	2.00	
3	2	2.00	2.00	
3.00	**2.5**	**2.00**	**2.00**	
2	3	3.00	2.00	
1	2	3.00		
1	2	2.00	2.00	
1.30	**2.3**	**2.70**	**2.00**	
3	1	2.00	3.00	
3	1	2.00	3.00	
3	1	2.00	3.00	
3	1	2.00	3.00	
3	1	2	3	
3.00	**1**	**2**	**3**	
	3		2.00	
2	3			
	3		2.00	
	3		1.00	
	3		1	
2.00	**3**		**1.5**	
2	1	1.00		

2				
2	1	1.00		
2				
2.00	**1**	**1.00**		
	3			
2		3.00		
1	3	2.00		
	2	2.00		
	3	2.00		
1.50	**2.8**	**2.30**		
2	2	1.00	2.00	
2	2	1.00	2.00	
2	2	1.00	2.00	
2.00	**2**	**1**	**2**	
3	3	3.00	3.00	
3	3	3.00	3.00	
1	1	1.00	1.00	
2.30	**2.3**	**2.3**	**2.3**	
2	2	2.00	2.00	
2	2	2.00	1.00	
2		2.00	1.00	
2.00	**2**	**2.00**	**1.30**	
1				
1.00				
		1.00		
1				
1				
1				
1.00		**1**		
2				
2				
2				
2				

2				
2.00				
3	3	3.00	3.00	
3	3	3.00	3.00	
1	1	1.00	1.00	
2.30	**2.3**	**2.30**	**2.30**	