

B.TECH

INFORMATION TECHNOLOGY

SECOND YEAR

COURSE OUTCOMES

2021-22

SECOND YEAR
YEAR OF STUDY 2021-22

COURSE CODE	UNIVERSITY CODE	COURSE NAME
C-201	KAS-402	MATHEMATICS IV
C-202	KAS-301	TECHNICAL COMMUNICATION
C-203	KCS-301	DATA STRUCTURES
C-204	KCS-302	COMPUTER ORGANIZATION AND ARCHITECTURE
C-205	KCS-303	DISCRETE STRUCTURES AND THEORY OF LOGIC
C-206	KNC-301	COMPUTER SYSTEM SECURITY
C-207	KCS-351	DATA STRUCTURES USING C / JAVA LAB
C-208	KCS-352	COMPUTER ORGANIZATION LAB
C-209	KCS-353	DISCRETE STRUCTURES AND LOGIC LAB
C-210	KIT-354	MINI PROJECT OR INTERNSHIP ASSESSMENT
C-211	KOE-041-48	BASIC SCIENCE COURSE
C-212	KVE-401	UNIVERSAL HUMAN VALUES
C-213	KCS-401	OPERATING SYSTEMS
C-214	KCS-402	THEORY OF AUTOMATA AND FORMAL LANGUAGES
C-215	KIT-401	WEB DESIGNING
C-216	KNC-402	PYTHON PROGRAMMING
C-217	KCS-451	OPERATING SYSTEMS LAB
C-218	KIT-451	WEB DESIGNING LAB
C-219	KCS453	PYTHON PROGRAMMING LAB

II Year B.Tech (IT)

Session 2021-22

C-201 : (KAS-302) MATHEMATICS IV		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-201.1	To understand the methods of finding the solution of linear and non-linear partial differential equations of higher order with constant coefficient.	
C-201.2	To develop knowledge of partial differential equation and their applications.	
C-201.3	Acquires knowledge of the basic ideas of statistics including measures of central tendency, correlation, regression and their properties.	
C-201.4	Demonstrates the understanding of probability, random variables and discrete and continuous probability distributions with their properties.	
C-201.5	Acquires knowledge about methods of studying data samples, hypothesis testing and statistics quality control charts with their properties.	

C-201 : (KAS-302) MATHEMATICS IV

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C-201.1	3	3	2	3	3	3						3
C-201.2	3	2	2	3	3	1						3
C-201.3	3	3	3	3	2	1			2	2	1	3
C-201.4	3	3	2	3	1	1			1	1	2	3
C-201.5	3	3	3	3	2	2	2		2	2	2	2
C-201	3	3	2	3	2	2	2		2	2	2	3

C-201 : (KAS-302) MATHEMATICS IV

CO	PSO1	PSO2
C-201.1	3	2
C-201.2	3	2
C-201.3	3	2
C-201.4	2	2
C-201.5	3	2
C-201	3	2

II Year B.Tech (IT)

Session 2021-22

C-202 : (KAS-401) TECHNICAL COMMUNICATION		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-202.1	Students will be able to understand the nature and objective of Technical Communication relevant for the workplace as Engineers.	
C-202.2	Students will utilize the technical writing for the purpose of Technical Communication and its exposure in various dimensions..	
C-202.3	Students would imbibe inputs by presentation skills to enhance confidence in face of diverse audience.	
C-202.4	Technical Communication skills will create a vast know -how of the application of the learning to promote their technical competence.	
C-202.5	It would enable them to evaluate their efficacy as fluent and efficient communication by learning the voice dynamics.	

C-202 : (KAS-401) TECHNICAL COMMUNICATION

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO 12
C-202.1	3	3		2						3		2
C-202.2	3	3		3	3					3		3
C-202.3	3	3		3	3	2				3		3
C-202.4	3	3		3	3		2			3		3
C-202.5	3	3	3	3	-	3				3		
C-202	3	3	3	3	3	2	2			3		3

C-202 : (KCS-401) TECHNICAL WRITING

CO	PSO1	PSO2
C-202.1		2
C-202.2		
C-202.3		3
C-202.4		1
C-202.5		1
C-202		2

II Year B.Tech (IT)

Session 2021-22

C-203 : (KCS-301) DATA STRUCTURES		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-203.1	To understand and analyse space and time complexity of various algorithms and implement various operations on arrays and linked list.	K1,K2
C-203.2	To understand, implement and analyse concept of stack and queues using arrays and linked list and apply them in various applications.	K2,K3
C-203.3	To understand and implement sorting and searching algorithms and evaluate the Complexities of these algorithms.	K2,K3
C-203.4	To understand, implement and analyse graph data structure and apply it to real world problems in finding shortest path.	K3,K4
C-203.5	To design tree data structure and apply it in data compression algorithms	K3,K4

C-203 : (KCS-301) DATA STRUCTURES

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO 12
C-203.1	3	3	3	3	2			2	2			3
C-203.2	3	3	3	3	2	2		2	2			3
C-203.3	3	3	3	3	2	2		2	2	3		3
C-203.4	3	3	3	3	2	2			2	3		3
C-203.5	3	3	3	3	2	2		2	2			3
C-203	3	3	3	3	2	2		2	2	3		3

C-203 : (KCS-301) DATA STRUCTURES

CO	PSO1	PSO2
C-203.1	3	3
C-203.2	3	3
C-203.3	3	3
C-203.4	3	3
C-203.5	3	3
C-203	3	3

II Year B.Tech (IT)

Session 2021-22

C-204 : (KCS-302) COMPUTER ORGANIZATION & ARCHITECTURE		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-204.1	Study of the basic structure and operation of a digital computer system.	K1,K2
C-204.2	Analysis of the design of arithmetic & logic unit and understanding of the fixed point and floating point arithmetic operations.	K2,K4
C-204.3	Implementation of control unit techniques and the concept of Pipelining.	K3
C-204.4	Understanding the hierarchical memory system, cache memories and virtual memory	K2
C-204.5	Understanding the different ways of communicating with I/O devices and standard I/O interfaces	K2,K4

C-204 : (KCS-302) COMPUTER ORGANIZATION & ARCHITECTURE

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO 12
C-204.1	2	1	3	3	2							2
C-204.2	3	3	3	2	2							2
C-204.3	3	1		3	2	3	3					2
C-204.4	3	3	3	3	2	3		3	3			2
C-204.5	2	2		3	2	2						2
C-204	3	3	3	3	2	3	3	3	3			2

C-204 : (KCS-302) COMPUTER ORGANIZATION & ARCHITECTURE

CO	PSO1	PSO2
C-204.1	3	3
C-204.2	3	3
C-204.3	3	3
C-204.4	3	3
C-204.5	3	3
C-204	3	3

II Year B.Tech (IT)

Session 2021-22

C-205 : (KCS-303) DISCRETE STRUCTURES & THEORY OF LOGIC		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-205.1	To understand and analyze space and time complexity of various algorithms and implement various operations on arrays and linked list.	K1,K2
C-205.2	To understand, implement and analyze concept of stack and queues using arrays and linked list and apply them in various applications.	K2
C-205.3	To understand and implement sorting and searching algorithms and evaluate the Complexities of these algorithms.	K3
C-205.4	To understand, implement and analyze graph data structure and apply it to real world problems in finding shortest path.	K4
C-205.5	To design tree data structure and apply it in data compression algorithms	K5,K6

C-205 : (KCS-303) DISCRETE STRUCTURES & THEORY OF LOGIC

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO 12
C-205.1	3	3	3	2	3	2	2	2	1			3
C-205.2	3	3	3	3	3	3	2	2	2			3
C-205.3	3	3	3	3	3	3	2	2	2			3
C-205.4	3	3	3	3	3	3	2	2	2			3
C-205.5	3	3	3		2		1	1	1			3
C-205	3	3	3	3	3	3	2	2	2			3

C-205 : (KCS-303) DISCRETE STRUCTURES & THEORY OF LOGIC

CO	PSO1	PSO2
C-205.1	3	3
C-205.2	3	3
C-205.3	3	3
C-205.4	3	3
C-205.5	3	3
C-205	3	3

II Year B.Tech (IT)

Session 2021-22

C-206 : (KNC-301) COMPUTER SYSTEM SECURITY		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-206.1	Students acquire knowledge to recognize software bugs that pose cyber security threats and to explain how to fix the bugs to mitigate such threats	K2,K3
C-206.2	Students acquire knowledge to define cyber-attack scenarios to web browsers and web servers and to explain how to mitigate such threats	K1,K2
C-206.3	Students acquire knowledge to discover and explain mobile software bugs posing cyber security threats, explain and recreate exploits, and to explain mitigation techniques.	K2,K6
C-206.4	Students acquire knowledge to articulate the urgent need for cyber security in critical computer systems, networks, and world wide web, and to explain various threat scenarios	K2,K4
C-206.5	Students acquire knowledge to the well-known cyber-attack incidents, explain the attack scenarios, and apply mitigation technique	K2,K3

C-206 : (KNC-301) COMPUTER SYSTEM SECURITY

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO 12
C-206.1	2	3	2	3	2	3		2				3
C-206.2	2	3	2	2	3			2				3
C-206.3	3	3	2	2	2			2				3
C-206.4	2	2	2	2	3			2				3
C-206.5	2	2	2	2				2				3
C-206	2	3	2	2	2	3		2				3

C-206 : (KNC-301) COMPUTER SYSTEM SECURITY

CO	PSO1	PSO2
C-206.1	3	3
C-206.2	3	3
C-206.3	3	3
C-206.4	3	3
C-206.5	3	3
C-206	3	3

II Year B.Tech (IT)

Session 2021-22

C-207 : (KCS-351) DATA STRUCTURES USING C LAB		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-207.1	To design and apply appropriate data structure using simple algorithms for modelling and solving given computing problems	K2, K6
C-207.2	To understand and implement linked-list based data structures, including singly, doubly, and circular linked-lists	K2, K3
C-207.3	To understand and implement the both array based and linked-list based Stack and queue data structure and its operations.	K2, K3
C-207.4	To understand and implement general tree data structures, including binary tree and binary search trees using linked lists.	K2, K3
C-207.5	To understand, analyse and develop programs to implement various searching and sorting techniques using appropriate data structures.	K2, K4, K6

C-207 : (KCS-351) DATA STRUCTURES USING C LAB

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO 12
C-207.1	3	3	3	3	3				2			3
C-207.2	3	3	3	3	3				2			3
C-207.3	3	3	3	3	3				2			3
C-207.4	3	3	3	3	3				2			3
C-207.5	3	3	3	3	3				2			3
C-207	3	3	3	3	3				2			3

C-207 : (KCS-351) DATA STRUCTURES USING C LAB

CO	PSO1	PSO2
C-207.1	3	3
C-207.2	3	3
C-207.3	3	3
C-207.4	3	3
C-207.5	3	3
C-207	3	3

II Year B.Tech (IT)

Session 2021-22

C-208 : (KCS-352) COMPUTER ORGANIZATION LAB		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-208.1	To perform BUS design and architecture required for the understanding the circuit design and register transfer.	K2, K4
C-208.2	To perform arithmetic logic unit design with different operations.	K2, K3
C-208.3	To understand how the instructions are given to the processor, decoded, and executed in the control unit.	K2, K4
C-208.4	To analyze the hierarchical memory system including cache memories and virtual memory. The students acquire the skills to apply various memory mapping schemes.	K3, K4, K5
C-208.5	To acquire knowledge and understanding of the different ways of communication with I/O devices and standard I/O interfaces.	K1, K2

C-208 : (KCS-352) COMPUTER ORGANIZATION LAB

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO 12
C-208.1	3	3	3	3	2	2			3	2	2	3
C-208.2	3	3	3	2	3	2			3		2	3
C-208.3	3	3	3	2	3	2			3	2	3	3
C-208.4	3	3	3	3	2				3	2		3
C-208.5	3	3	3	2	2				2			3
C-208	3	3	3	2	2	2			3	2	2	3

C-208 : (KCS-352) COMPUTER ORGANIZATION LAB

CO	PSO1	PSO2
C-208.1	3	2
C-208.2	3	3
C-208.3	3	3
C-208.4	3	2
C-208.5	3	3
C-208	3	3

II Year B.Tech (IT)

Session 2021-22

C-209: (KCS-353) DISCRETE STRUCTURES AND LOGIC LAB		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-209.1	To recall, from previous set theoretical knowledge, concepts of basic set operations and should be able to design solutions to simple socio-engineering problems by way of computer programs.	K1, K6
C-209.2	To simulate probability theory concepts in Scilab environment. The students should be able to analyze a socio-engineering problem of probability theory, design algorithm for it and implement it in Scilab.	K3, K4
C-209.3	To design algorithmic solutions to socio-engineering problems of binary relations that would answer complex queries of the user.	K6
C-209.4	To apply the concepts of inference theory to prove validity of mathematical or societal arguments.	K3
C-209.5	To learn the concepts of graph theory and apply in complex engineering and social problems.	K2, K3

C-209: (KCS-353) DISCRETE STRUCTURES AND LOGIC LAB

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C-209.1	3	3	2	2	3	3				2	2	3
C-209.2	3	3	2	3	3	3				2	2	3
C-209.3	3	3	2	2	3	3				2	2	3
C-209.4												
C-209.5												
C-209	3	3	2	2	3	3				2	2	3

C-209: (KCS-353) DISCRETE STRUCTURES AND LOGIC LAB

CO	PSO1	PSO2
C-209.1	3	3
C-209.2	3	3
C-209.3	3	3
C-209.4	3	3
C-209.5	3	3
C-209	3	3

II Year B.Tech (IT)

Session 2021-22

C-210: (KIT-354) MINI PROJECT OR INTERSHIP ASSESSMENT		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-210.1	Developing a technical artifact requiring new technical skills and effectively utilizing a new software tool to complete a task.	K4,K5
C-210.2	Writing requirements documentation, Selecting appropriate technologies, identifying and creating appropriate test cases for systems.	K5, K6
C-210.3	Demonstrating understanding of professional customs & practices and working with professional standards.	K4,K5
C-210.4	Improving problem-solving, critical thinking skills and report writing.	K4,K5
C-210.5	Learning professional skills like exercising leadership, behaving professionally, behaving ethically, listening effectively, participating as a member of a team, developing appropriate workplace attitudes.	K2, K4

C-210: (KIT-354) MINI PROJECT OR INTERSHIP ASSESSMENT

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO 12
C-210.1	3	2	2	2	3	3			3	2	2	3
C-210.2	3	3	2	3	3	3	3	3	2	2	2	3
C-210.3	3	3	2	2	3	3		3	2	2	2	3
C-210.4	3	3	2	2		3	3		3	2		3
C-210.5	3	2	2		3			3	3		2	3
C-210	3	3	2	2	3	3	3	3	3	2	2	3

C-210: (KIT-354) MINI PROJECT OR INTERSHIP ASSESSMENT

CO	PSO1	PSO2
C-210.1	3	3
C-210.2	3	3
C-210.3	3	3
C-210.4	3	3
C-210.5	3	3
C-210	3	3

II Year B.Tech (IT)

Session 2021-22

C-211: (KOE-034) SENSORS & INSTRUMENTATION		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-211.1	Apply the use of sensors for measurement of displacement, force and pressure.	K1, K6
C-211.2	Employ commonly used sensors in industry for measurement of temperature, position, accelerometer, vibration sensor, flow and level.	K3, K4
C-211.3	Demonstrate the use of virtual instrumentation in automation industries.	K6
C-211.4	Identify and use data acquisition methods.	K3
C-211.5	Comprehend intelligent instrumentation in industrial automation.	K2, K3

C-211: (KOE-034) SENSORS & INSTRUMENTATION

CO	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012
C-211.1	3	3								2		
C-211.2	3	3								2		
C-211.3	3	3			3					2		
C-211.4	3	3								2		
C-211.5	3	3								2		
C-211	3	3			3					2		

C-211: (KOE-034) SENSORS & INSTRUMENTATION

CO	PSO1	PSO2
C-211.1	2	
C-211.2	2	
C-211.3	2	
C-211.4	2	
C-211.5	3	
C-211	2	

II Year B.Tech (IT)

Session 2021-22

C-212 : (KVE-401) UNIVERSAL HUMAN VALUES		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-212.1	To discuss a holistic vision towards life through Self Exploration and to appreciate the essential complementarities between Values & Skills ensuring sustained happiness and prosperity, the core aspirations of all human beings.	
C-212.2	To understand human being as a co-existence of the sentient "I" and the material "Body" and the correct appraisal of Physical Needs and the meaning of prosperity in detail.	
C-212.3	To interpret 9 feelings (values) in relationship to ensure justice and to make programmes to achieve comprehensive human goals like- Education-Right Understanding, Health-Education, Justice-Preservation, Production-Work and Exchange-Storage, leading towards an Undivided Society ("Akhand Samaj").	
C-212.4	To relate and visualize interconnectedness and mutual fulfilment among the four orders of nature, recyclability and self-regulation in nature.	
C-212.5	To acquire competence in professional ethics. Ability to identify and develop more people and eco-friendly appropriate technologies and management patterns.	

C-212 : (KVE-401) UNIVERSAL HUMAN VALUES

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO 12
C-212.1		2				1	1	1	1			2
C-212.2			3			2	2	2	2			3
C-212.3		3	3	2		3	3	3	2	2		3
C-212.4		2	3	3		3	3	3	3	3		3
C-212.5			3	3		3	3	3		2		3
C-212		2	3	3		3	3	3	2	2		3

C-212 : (KVE-401) UNIVERSAL HUMAN VALUES

CO	PSO1	PSO2
C-212.1	2	2
C-212.2	3	2
C-212.3	3	3
C-212.4	3	3
C-212.5	3	3
C-212	3	3

II Year B.Tech (IT)

Session 2021-22

C-213 : (KCS-401) OPERATING SYSTEM		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-213.1	To understand the main components of operating system, its principles, techniques, and functionalities	K2
C-213.2	To gain knowledge about the communication and concurrency control among the concurrent processes in operating system and analyze as well as handle various issues in inter process communication	K1, K4
C-213.3	To understand the concept of process and its management and apply these concepts in process scheduling, process synchronization and deadlock.	K2, K3
C-213.4	To apply the concept of paging, segmentation to perform memory management techniques implemented by the operating system. The students will be able to understand the need and implementation of virtual memory.	K2, K3
C-213.5	To understand the requirement and working of an OS as a resource manager, file system manager and I/O manager. They become familiar with the protection and security mechanisms taken by operating system.	K2

C-213 (KCS-401) OPERATING SYSTEM

CO	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012
C-213.1	3	3	3		3							
C-213.2	3	3	3	3	3							3
C-213.3	3	3	3	3	3		3			3	3	3
C-213.4	3	3	3	3	3		3				3	3
C-213.5	3	3	3		3						3	
C-213	3	3	3	3	3		3			3	3	3

C-213 (KCS-401) OPERATING SYSTEM

CO	PSO1	PSO2
C-213.1	3	3
C-213.2	3	3
C-213.3	3	3
C-213.4	3	3
C-213.5	3	3
C-213	3	3

II Year B.Tech (IT)

Session 2021-22

C-214 (KCS-402) THEORY OF AUTOMATA & FORMAL LANGUAGE		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-214.1	To understand the mechanical computations and acquire skills that are to be demonstrated through lab and class assignments, to analyze and design regular language acceptors used in engineering systems	K2, K3, K4
C-214.2	To analyze and design machines (Mealy and Moore) for mathematical problem solving. Students demonstrate the same through lab and class assignments	K4, K6
C-214.3	To analyze a Context Free Language and design rules to generate the strings and verify the properties of the same. Students demonstrate the same through lab and class assignments	K4, K6
C-214.4	To acquire skills that are to be demonstrated through lab and class assignments, to analyze CF languages and design pushdown automaton to identify the same.	K2, K3
C-214.5	To demonstrate their insight, through lab and class assignments, into analysis of computational problems and design of Turing Machines for the same.	K3, K4

C-214 (KCS-402) THEORY OF AUTOMATA & FORMAL LANGUAGE

CO	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012
C-214.1	3	3	3	2	3					2		3
C-214.2	3	3	3	2	3					2		3
C-214.3	3	3	3	2	3					2		3
C-214.4	3	3	3	2	3					2		3
C-214.5	3	3	3	2	3					2		3
C-214	3	3	3	2	3					2		3

C-214 (KCS-402) THEORY OF AUTOMATA & FORMAL LANGUAGE

CO	PSO1	PSO2
C-214.1	3	3
C-214.2	3	3
C-214.3	3	3
C-214.4	3	3
C-214.5	3	3
C-214	3	3

II Year B.Tech (IT)

Session 2021-22

C-215 (KIT-401) WEB DESIGNING		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-215.1	To understand the principles and planning process of creating an effective web page, including an in-depth consideration of domain and web hosting.	K2, K3, K4
C-215.2	To visualize and recognize the concepts of web development language HTML, working with Text, Lists, Tables, Frames, Hyperlinks, Images, Multimedia, and controls.	K4, K6
C-215.3	To recognize and apply the concepts in creating and working with Cascading Style Sheets (CSS) including the advance concepts of CSS.	K4, K6
C-215.4	To Learn client-side scripting language Java Script, JS events, JS arrays, JS functions.	K2, K3
C-215.5	To Understand web hosting basics, packages, registering domains, maintaining a website, concept of SEO with onpage optimization Basics	K3, K4

C-215 (KIT-401) WEB DESIGNING

CO	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012
C-215.1	3	3	3	2	2						2	3
C-215.2	3	3	3	2				2			2	3
C-215.3	3	3	3	2	2		2	2		2		3
C-215.4	3	3	3	2	2		2	2		2	2	3
C-215.5	3	3	3	2				2			2	3
C-215	3	3	3	2	2		2	2		2	2	3

C-215 (KIT-401) WEB DESIGNING

CO	PSO1	PSO2
C-215.1	3	3
C-215.2	3	3
C-215.3	3	3
C-215.4	3	3
C-215.5	3	3
C-215	3	3

II Year B.Tech (IT)

Session 2021-22

C-216 (KNC-402) PYTHON PROGRAMMING		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-216.1	To understand and read and write simple Python programs.	K2
C-216.2	To understand and develop Python programs with conditionals and loops.	K2, K6
C-216.3	To understand and define Python functions and to use Python data structures – - lists, tuples, dictionaries.	K1, K2
C-216.4	To understand and do input/output with files in Python.	K1, K2
C-216.5	To understand and do searching, sorting and merging in Python	K1, K2

C-216 (KNC-402) PYTHON PROGRAMMING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C-216.1	2	3	3		3		3	2	2			3
C-216.2	3	3	3	2	3	2	2	2	3			3
C-216.3	3	3	2	3	3	3	3	2	3			3
C-216.4	3	3	3	3	3	3	2	2	3			3
C-216.5	3	3	3	3	3	3	2	2	3			3
C-216	3	3	3	3	3	3	2	2	3			3

C-216 (KNC-402) PYTHON PROGRAMMING

CO	PSO1	PSO2
C-216.1	3	3
C-216.2	3	3
C-216.3	3	3
C-216.4	3	3
C-216.5	3	3
C-216	3	3

II Year B.Tech (IT)

Session 2021-22

C-217 (KCS-451) OPERATING SYSTEMS LAB		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-217.1	Students are familiarized with the operating system modules by implementing various process scheduling and memory management algorithms.	K3
C-217.2	Students simulate various CPU Scheduling Algorithms (FCFS, SJF, RR, Priority, Multilevel queue) and compare their performance.	K2, K4
C-217.3	Students simulate banker's algorithms for deadlock avoidance, prevention.	K6
C-217.4	Students implement various page replacement algorithms for FIFO, LRU, and optimal page replacement and do a comparative study.	K3
C-217.5	Students implement and evaluate different disk scheduling algorithms (FCFS, SSTF, SCAN).	K3, K5

C-217 (KCS-451) OPERATING SYSTEMS LAB

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C-217.1	3	3	3	3	2	2	3		3			3
C-217.2	3	3	3	3	2	2	3		3			3
C-217.3	3	3	3	3	2	2	3		3			3
C-217.4	3	3	3	3	2	2	3		3			3
C-217.5	3	3	3	3	2	2	3		3			3
C-217	3	3	3	3	2	2	3		3			3

C-217 (KCS-451) OPERATING SYSTEMS LAB

CO	PSO1	PSO2
C-217.1	3	3
C-217.2	3	3
C-217.3	3	3
C-217.4	3	3
C-217.5	3	3
C-217	3	3

II Year B.Tech (IT)

Session 2021-22

C-218 (KIT-451) WEB DESIGNING LAB		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-218.1	To create HTML files demonstrating the use of various tags.	K2, K3, K4
C-218.2	To demonstrate the linking images, tables and also another links within page.	K4, K6
C-218.3	To create internal, external and inline CSS style sheets.	K4, K6
C-218.4	To learn and apply exception handling and use of various predefined functions in JavaScript.	K2, K3
C-218.5	To create new window from current window using javascript.	K3, K4

C-218 (KIT-401) WEB DESIGNING LAB

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C-218.1	3	3	3	3	3			2			2	3
C-218.2	3	3	3	3	3			2	2		2	3
C-218.3	3	3	3	3	3			2	2			3
C-218.4	3	3	3	3	3			2	2		2	3
C-218.5	3	3	3	3	3			2			2	3
C-218	3	3	3	3	3			2	2		2	3

C-215 (KIT-401) WEB DESIGNING

CO	PSO1	PSO2
C-218.1	3	3
C-218.2	3	3
C-218.3	3	3
C-218.4	3	3
C-218.5	3	3
C-218	3	3

II Year B.Tech (IT)

Session 2021-22

C-219 (KCS-453) PYTHON PROGRAMMING LAB		
Course Outcomes (CO)		Bloom's Knowledge Level (KL)
C-219.1	To describe the numbers, math functions, strings, list, tuples and dictionaries in python	K2
C-219.2	To acquire the skills to apply different decision making statements and functions in python.	K2
C-219.3	To interpret object oriented programming in python	K2
C-219.4	To understand and summarize different file handling operations	K2
C-219.5	To demonstrate the ability to design GUI applications in python and evaluate different database operations	K3, K6

C-219 (KCS-453) PYTHON PROGRAMMING LAB

CO	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012
C-219.1	3	2	2	3	3	2	3				3	3
C-219.2	3	2	3	3	2	3	2				3	3
C-219.3	3	2	3	2	3	3	3				3	3
C-219.4	3	2	3	2	2	2	2				2	3
C-219.5	3	2	3		3	3	2				2	3
C-219	3	2	3	3	3	3	2				3	3

C-219 (KCS-453) PYTHON PROGRAMMING LAB

CO	PSO1	PSO2
C-219.1	3	3
C-219.2	3	3
C-219.3	3	3
C-219.4	3	3
C-219.5	3	3
C-219	3	3

Program level Course Mapping With PO – Second Year (2021-22)

C O	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C-201												
C-202												
C-203												
C-204												
C-205												
C-206												
C-207												
C-208												
C-209												
C-210												
C-211												
C-212												
C-213												
C-214												
C-215												
C-216												
C-217												
C-218												
C-219												

Program level Course Mapping With PSO – Second Year (2021-22)

CO	PSO1	PSO2
C-201		
C-202		
C-203		
C-204		
C-205		
C-206		
C-207		
C-208		
C-209		
C-210		
C-211		
C-212		
C-213		
C-214		
C-215		
C-216		
C-217		
C-218		
C-219		