Course Outcomes

Session 2022-23

Department of Computer Science

13 KM STONE, GHAZIABAD-MEERUT ROAD, GHAZIABAD – 201206

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KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

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Department of Computer Science

CO PO and Mapping of CO PO 2nd Year

Session:- 2022-23 Semester:- 3rd

Theory

Course Outcome (Sensor & Instrumentation, KOE 034)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the use of sensors for measurement of displacement, force and pressure.	2	C,P
CO2	Understand the uses of sensors in industry for measurement of temperature, position, accelerometer, vibration sensor, flow and level.	2	C,P
CO3	Apply the concept of virtual instrumentation in automation industries.	3	F,P
CO4	Understand, Identify and use of data acquisition methods.	2	C,P
CO5	Understand intelligent instrumentation in industrial automation.	2	C,P

CO-PO-PSO Mapping (Sensor & Instrumentation, KOE 034)

CO-No.	Programme-Outcome-(PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	2	-	-	-	-	-	-	-	-	-	-	2	-
CO2	2	2	-	-	2	-	-	-	-	-	-	-	2	-
CO3	2	2	-	-	1	-	-	-	-	-	-	-	2	-
CO4	2	2	-	-	-	-	-	-	-	-	-	-	-	-
CO5	2	2	-	-	2	-	-	-	-	-	-	-	2	-
PO Target	2	2	-	-	1.67	-	-	-	-	-	-	-	2	-

(Pawan Kumar Pal)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Universal Human Values, KVE 301)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the process of self-exploration and meaning of natural acceptance.	2	C, P
CO2	Explore the concept of harmony in the human being (in Myself) being 'I' & 'body' as separate entity.	4	C, P
CO3	Analyze the process of developing harmony in family and society.	4	C, P
CO4	Analyze the process of developing the harmony in nature and existence.	4	C, P
CO5	Apply the role of holistic understanding of harmony of professional ethics.	3	C, P

CO-PO-PSO Mapping (Universal Human Values, KVE 301)

CO-No.	Programme-Outcome-(PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	-	-	-	-	-	1	1	1	1	1	1	1	-	1
CO2	-	-	-	-	-	3	2	3	2	1	1	2	-	-
CO3	-	-	-	-	-	3	2	3	2	1	1	2	-	2
CO4	-	-	-	-	-	3	2	3	2	1	1	2	-	-
CO5	-	-	-	-	-	3	2	3	2	1	1	2	-	2
PO Target	-	-	-	-	-	2.6	1.8	2.6	1.8	1	1	1.8	-	1.67

CARTI SHARMA

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Data Structure, KCS 301)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Implement the concepts of Array and Linked list after understanding the basics of programming, data structure and their memory representation.	3	C, P
CO2	Understand the primitive operations on various linear data structures like stack and queue along with their variants, and apply them on various applications like Expression Solving, Tower of Hanoi, String methods, etc.	3	C, P
CO3	Implementation of various searching and sorting algorithms using data structure concepts.	3	C, P
CO4	Implementation of various data structures on different applications and analyse the working in terms of time and space complexity using asymptotic notations.	3	C, P
CO5	Implementation of Non-linear data structures like Trees and Graphs; and perform various operations on these data structures.	3	C, P

CO-PO-PSO Mapping (Data Structure, KCS 301)

CO-No.	Programme-Outcome-(PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	3	2	-	-	-	-	-	-	-	-	2	3	2
CO2	3	3	2	-	-	-	-	-	-	-	-	2	3	2
CO3	3	3	1	-	-	-	-	-	-	-	-	2	3	2
CO4	3	3	1	2	-	-	-	-	-	-	-	2	3	2
CO5	3	3	1	-	-	-	-	-	-	-	-	2	3	2
PO Target	3	3	1.4	2	-	-	-	-	-	-	-	2	3	2

(Harsh Khatter)

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Department of Computer Science

Course Outcome
(Computer Organization and Architecture, KCS 302)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Relate the fundamental components of the basic computer system with its organization.	3	C, P
CO2	Interpret the design of ALU, fixed-floating-point representations and various multiplication, division operations on binary numbers.	3	C, P
CO3	Illustrate control unit design and concept of pipelining.	3	C, P
CO4	Apply the concept of different types of memories.	3	C, P
CO5	Relate the fundamental components of the basic computer system with its organization.	3	C, P

CO-PO-PSO Mapping
(Computer Organization and Architecture, KCS 302)

CO No.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	2	-	-	-	-	-	-	-	-	-	2	-	-
CO2	3	2	-	-	-	-	-	-	-	-	-	2	-	-
CO3	2	2	-	-	-	-	-	-	-	-	-	2	-	-
CO4	3	2	-	-	-	-	-	-	-	-	-	2	-	-
CO5	2	2	-	-	-	-	-	-	-	-	-	2	-	-
PO Target	2.6	2	-	-	-	-	-	-	-	-	-	2	-	-

(Akash Goel)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome
(Discrete Structures & Theory of Logic, KCS 303)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Illustrate basic mathematical objects such as sets, functions, relations and natural numbers and their properties .	4	C, P
CO2	Examine various structures and properties of modern algebra.	3	C, P
CO3	Substantial experience of formal and logical arguments.	3	C, P
CO4	Justify the mathematical Solve properties via the formal language of propositional and predicate logic.	4	C, P
CO5	Use graphs and trees, as tools to visualize and simplify the problems.	3	C, P

CO-PO-PSO Mapping
(Discrete Structures & Theory of Logic, KCS 303)

CO No.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	1	-	-	2	-	-	-	-	-	-	-	1	-	1
CO2	3	-	-	-	-	-	1	-	-	-	-	1	-	2
CO3	2	2	1	2		-	1	-	-	-	1	2	-	3
CO4	2	-	3	2	-	-	-	-	-	-	1	1	1	3
CO5	3	3	-	2	2	-	1	-	-	-	2	2	2	2
PO Target	2.2	2.5	2	2	2	-	1	-	-	-	1.33	1.4	1.5	2.2

(HARSH)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Practical

Course Outcome (DSUC Lab, KCS 351)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the basics of programming and data structure like arrays, linked lists, with their memory representation.	2	C, P
CO2	Apply the concept to perform Stack, Queue, Tree and Graph array and Linked List Representation.	3	C, P
CO3	Make a solution for the available problem and implement them using data structure concept.	3	C, P
CO4	Analyse the working of multiple data structure and help to solve existing problem.	4	C, P

CO-PO-PSO Mapping (DSUC Lab, KCS 351)

CO No.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	2	2	2	3	-	-	-	-	-	-	1	3	3
CO2	3	3	2	2	3	-	-	-	-	-	-	2	2	2
CO3	3	3	2	2	3	-	-	-	-	-	-	3	2	2
CO4	3	3	3	2	3	-	-	-	-	-	-	3	3	3
PO Target	3	2.75	2.25	2	3	-	-	-	-	-	-	2.25	2.5	2.50

(Harsh Khatter)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (CO Lab, KCS 352)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Build half adder and full adder using basic logic gates and solve code conversions: binary to gray and gray to binary.	3	C, P
CO2	Construct Multiplexers (4x1, 8x1) and Decoders (2x4, 3x8).	3	C, P
CO3	Make use of excitation tables of various flip flops.	3	C, P
CO4	Model 8-bit Arithmetic Logical unit.	3	C, P
CO5	Model 8-bit input output system with four-bit internal registers.	3	C, P

CO-PO-PSO Mapping (CO Lab, KCS 352)

CO No.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	1	1	-	-	-	-	-	-	-	-	1	1	
CO2	2	1	1	-	-	-	-	-	-	-	-	1	1	-
CO3	2	1	1	-	-	-	-	-	-	-	-	1	1	-
CO4	2	1	1	-	-	-	-	-	-	-	-	1	1	-
CO5	2	1	1	-	-	-	-	-	-	-	-	1	1	-
PO Target	2	1	1	-	-	-	-	-	-	-	-	1	1	-

(Akash Goel)

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Department of Computer Science

Course Outcome (DSTL Lab, KCS 353)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Implement various operations of set, Boolean algebra, recursion, and mathematical induction.	3	C, P
CO2	Implement the concept of minimum cost spanning tree and shortest path in graphs.	3	C, P
CO3	Illustrate permutation, combination, and probability for various problems.	3	C, P

CO-PO-PSO Mapping (DSTL Lab, KCS 353)

CO No.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	-	-	-	3	-	-	-	2	-	-	2	2	3
CO2	3	-	-	-	3	-	-	-	2	-	-	2	2	3
CO3	3	3	-	2	3	-	-	-	2	-	-	2	2	3
PO Target	3	3	-	2	3	-	-	-	2	-	-	2	2	3

Harsh

(Harsh Vardhan)

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Department of Computer Science

Course Outcome (Mini Project, KCS 354)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Identify the problem to solve and meet its requirements.	3	C
CO2	Design the solution of the problem identified by using modern tools.	6	M
CO3	Develop a project using advanced technologies.	5	M
CO4	Develop analytical thinking and professional skills to prepare for final year project.	5	M
CO5	Demonstrate the developed project and its outcome to the evaluators.	3	C

CO-PO-PSO Mapping (Mini Project, KCS 354)

CO No.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	3	3	3	3	2	-	-	2	2	2	3	2	2
CO2	3	3	3	3	3	-	-	-	2	-	2	3	2	3
CO3	3	3	3	3	2	1	-	-	3	-	2	3	3	2
CO4	2	3	3	3	3	2	-	2	3	2	2	3	2	2
CO5	2	-	-	-	3	-	-	2	2	3	2	3	2	2
PO Target	2.6	3	3	3	2.8	1.67	-	2	2.4	2.33	2	3	2.2	2.2

(Arti Sharma)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

CO PO and Mapping of CO PO 2nd Year

Session:- 2022-23 Semester:- 4th

Theory

Course Outcome (Maths – IV, KAS 402)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand Linear and nonlinear partial differential equations using Lagrange's and Charpit method.	3	C, P
CO2	Apply the concept of separation of variables to solve Heat, Wave, Laplace equations and Transmission lines.	3	C, P
CO3	Determine moments, moment generating function, Correlation and linear regression.	4	C, P
CO4	Apply the concept of probability, discrete and continuous probability distributions.	3	C, P
CO5	Apply the concept of sampling to study t-test, F-test Chi-square test, One way analysis of Variance (ANOVA)).	3	C, P

CO-PO-PSO Mapping (Maths – IV, KAS 402)

CO-No.	Programme-Outcome-(PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	2	-	-	-	-	-	-	-	-	-	-	-	-
CO2	2	2	2	-	-	-	-	-	-	-	-	-	-	-
CO3	2	2	2	2	2	-	-	-	-	-	-	-	-	-
CO4	2	2	1	1	1	-	-	-	-	-	-	-	-	-
CO5	2	1	2	2	2	2	2	-	-	-	-	-	-	-
PO Target	2	1.8	1.75	1.67	1.67	2	2	-	-	-	-	-	-	-

Ajay

(Dr. Ajay Dixit)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Technical Communication, KAS 401)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Analyze the nature and objective of Technical Communication relevant for the work place as Engineers.	2,4	C
CO2	Utilize the technical writing for the purposes of Technical Communication and its exposure in various dimensions.	3	C
CO3	Imbibe presentation strategies inputs by presentation skills to enhance confidence in facing diverse audience in required situations at workplace.	3	C
CO4	Estimate the application of Technical Communication to promote their competence for various media like report generation, resume design, GD, and Interview etc..	6	C
CO5	Evaluate Voice dynamics and appropriate cues for their own efficacy as fluent and efficient communicators.	5	C

CO-PO-PSO Mapping (Technical Communication, KAS 401)

CO-No.	Programme-Outcome-(PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	-	-	-	-	-	-	-	-	2	3	-	3	-	-
CO2	-	-	-	-	-	-	-	-	2	3	-	3	-	-
CO3	-	-	-	-	-	-	-	-	2	3	-	3	-	-
CO4	-	-	-	-	-	-	-	-	2	3	-	3	-	-
CO5	-	-	-	-	-	-	-	-	2	3	-	3	-	-
PO Target	-	-	-	-	-	-	-	-	2	3	-	3	-	-

Vipin

(Dr Vipin Kumar)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Operating System, KCS 401)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the basic concepts, functions, and types of operating systems.	4	C
CO2	Identify process synchronization techniques to achieve better performance of a computer system.	3	C
CO3	Apply different process scheduling algorithms and deadlock management techniques.	3	C
CO4	Illustrate various memory management mechanism used in the operating system.	4	C
CO5	Demonstrate input and output management; and how the operating system performs the disk management.	5	C

CO-PO-PSO Mapping (Operating System, KCS 401)

CO-No.	Programme-Outcome-(PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	-	-	-	-	-	-	-	-	-	-	-	2	-
CO2	3	2	-	-	-	-	-	-	-	-	-	2	2	-
CO3	3	2	-	-	-	-	-	-	-	-	-	2	2	-
CO4	3	2	-	-	-	-	-	-	-	-	-	-	2	-
CO5	3	2	-	-	-	-	-	-	-	-	-	-	2	-
PO Target	2.8	2	-	-	-	-	-	-	-	-	-	2	2	-

(ARTI SHARMA)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome
(Theory of Automata & Formal Language, KCS 402)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand basic concepts of automata theory and formal languages.	4	C
CO2	Construct finite automata and regular expressions for regular languages.	3	C
CO3	Construct regular and context-free grammar for formal languages.	4	C
CO4	Construct the pushdown automata for context free languages.	3	C
CO5	Construct Turing machines for formal languages.	4	C

CO-PO-PSO Mapping
(Theory of Automata & Formal Language, KCS 402)

CO-No.	Programme-Outcome-(PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	-	-	–	–	–	–	–	–	–	1	1	-	–
CO2	3	2	2	-	-	-	-	-	-	-	1	2	2	-
CO3	3	2	2	-	-	-	-	-	-	-	1	2	3	-
CO4	3	2	2	-	-	-	-	-	-	-	1	2	2	-
CO5	3	2	2	-	-	-	-	-	-	-	1	2	2	-
PO Target	2.8	2	2	–	–	–	–	–	–	–	1	1.80	2	–

Raj.

(Raj Kumar)

Subject Faculty

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Microprocessor, KCS 403)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the fundamental concepts of microprocessor including architecture, addressing modes, etc.+	3	C, P
CO2	Illustrate the detailed architecture of 8085 microprocessor with its instruction set.	3	C, P
CO3	Illustrate the detailed architecture of 8086 microprocessor with its instruction set.	3	C, P
CO4	Implement simple programs of 8085/8086 microprocessor using assembly language programming.	3	C, P
CO5	Understand concepts of peripherals devices interfaced with microprocessor (8085/8086).	4	C, P

CO-PO-PSO Mapping (Microprocessor, KCS 403)

CO-No.	Programme-Outcome-(PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	-	-	-	-	-	-	-	-	-	-	1	1	-
CO2	3	-	-	-	-	-	-	-	-	-	-	1	1	-
CO3	3	-	1	-	-	-	-	-	-	-	-	1	2	-
CO4	3	-	1	-	-	-	-	-	-	-	-	1	2	-
CO5	2	-	-	-	-	-	-	-	-	-	-	1	1	-
PO Target	2.8	-	1	-	-	-	-	-	-	-	-	1	1.4	-

(Dr. Gaurav Dubey)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Practical

Course Outcome (Operating System Lab, KCS 451)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand and apply knowledge of basic UNIX/LINUX commands to solve various software problems and to automate real time applications.	3	C, P
CO2	Compare and contrast among various CPU scheduling algorithms and apply knowledge to identify the best scheduling algorithm as per software requirement.	3	C, P
CO3	Understand and implement the concept of process synchronization tool like semaphore to solve mutual exclusion problem in order to coordinate concurrent processes.	3	C, P
CO4	Apply knowledge of process management techniques to design and solve various process synchronization problems like Producer Consumer problem, Reader Writers problem and dining philosophers' problem.	4	C, P
CO5	Understand and apply the concepts of deadlock in operating systems to design and implement various deadlock avoidance algorithms like Banker's algorithm.	4	C, P

CO-PO-PSO Mapping (Operating System Lab, KCS 451)

CO-No.	Programme-Outcome-(PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	-	-	-	-	-	-	-	-	-	-	2	-	-
CO2	3	2	-	-	-	-	-	-	-	-	-	2	2	-
CO3	3	2	-	-	-	-	-	-	-	-	-	2	2	-
CO4	3	2	-	-	-	-	-	-	-	-	-	2	2	-
CO5	3	2	-	-	-	-	-	-	-	-	-	2	-	-
PO Target	2.8	2	-	-	-	-	-	-	-	-	-	2	2	-

DR. SAPNA JUNEJA

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (MP Lab, KCS 452)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Implement basic arithmetic operation using assembly language on 8085 microprocessor.	2	C, P
CO2	Implement advance arithmetic operations using assembly language 8085 microprocessor.	6	C, P
CO3	Simulating interfacing circuits with microprocessor.	6	C, P

CO-PO-PSO Mapping (MP Lab, KCS 452)

CO-No.	Programme-Outcome-(PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	-	-	-	-	-	-	-	1	-	-	2	1	-
CO2	2	-	-	-	-	-	-	-	1	-	-	2	1	-
CO3	2	-	-	-	-	-	-	-	1	-	-	2	1	-
PO Target	2	-	-	-	-	-	-	-	1	-	-	2	1	-

(Amit Kumar Singh Sengar)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Python Programming Lab, KCS 453)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand basic syntax of Python Implementation.	2	C, P
CO2	Apply looping and conditional construct.	4	C, P
CO3	Develop program related with list data structure.	3	C, P
CO4	Design program related to tuple, dictionary and set.	3	C, P
CO5	Illustrate searching, sorting and merging in python.	2	C, P

CO-PO-PSO Mapping (Python Programming Lab, KCS 453)

CO No.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	1	2	1	3	-	-	-	-	-	-	1	1	1
CO2	3	2	2	2	3	-	-	-	-	-	-	2	2	2
CO3	3	3	2	2	3	-	-	-	-	-	-	2	2	2
CO4	3	2	2	2	3	-	-	-	-	-	-	2	2	2
CO5	3	2	2	3	3	-	-	-	-	-	-	2	2	2
PO Target	3	2	2	2	3	-	-	-	-	-	-	1.8	1.8	1.8

Rahul

(Rahul Kumar)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

CO PO and Mapping of CO PO 3rd Year

Session:- 2022-23 Semester:- 5th

Theory

Course Outcome (Database Management System, KCS 501)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Illustrate the knowledge of database concepts along with design of database for real world problem.	3	C, P
CO2	Apply query processing techniques (relational algebra and relational calculus expressions) with knowledge of relational model and query languages.	3	C, P
CO3	Analyze the database redundancy problem using normalization techniques for good database design.	3	C, P
CO4	Implement the database transactions processing concepts and study the broad range of database management issues in concurrent environment.	3	C, P
CO5	Apply the different concurrency control techniques on transactions and study of database recovery methods.	3	C, P

CO-PO-PSO Mapping(Database Management System, KCS 501)

CO No.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	2	-	-	-	-	-	-	-	-	-	1	1	-
CO2	3	3	-	-	1	-	-	-	-	-	-	1	1	-
CO3	3	3	-	-	1	-	-	-	-	-	-	1	1	-
CO4	3	3	-	-	-	-	-	-	-	-	-	1	1	-
CO5	3	3	-	-	-	-	-	-	-	-	-	1	1	-
PO Target	2.80	2.80	-	-	1	-	-	-	-	-	-	1	1	-

(Dr. Gaurav Dubey)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Compiler Design, KCS 502)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Acquire knowledge of different phases and passes of compiler along with LEX and YACC tool.	2	C
CO2	Illustrate various parsing techniques i.e. Top-Down and Bottom-up parsers using LL, SLR, CLR, and LALR parsing table.	3	C, P
CO3	Describe the Intermediate code representation using Syntax Tree, DAG as well as use this knowledge to generate the intermediate code in the form of 3-address code.	3	C, P
CO4	Discuss data structures used for Symbol Table, Run time organization and error in phases of compiler.	2	C
CO5	Apply code optimization and Generation techniques resulting in Target Code.	3	C, P

CO-PO-PSO Mapping (Compiler Design, KCS 502)

CO-No.	Programme-Outcome-(PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	2	1	1	-	-	-	-	-	-	-	1	-	-
CO2	3	3	1	-	-	-	-	-	-	-	-	-	-	-
CO3	3	3	1	-	-	-	-	-	-	-	-	2	-	-
CO4	2	1	-	-	-	-	-	-	-	-	-	-	-	-
CO5	3	3	2	-	-	-	-	-	-	-	-	1 -	-	-
PO Target	2.8	2.4	1.25	1	-	-	-	-	-	-	-	1.33	-	-

CARTI SHARMA)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome

(Design and Analysis of Algorithm, KCS 503)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand different asymptotic performance analysis methods.	3	C
CO2	Analyze performance analysis methods for sorting and searching algorithms.	3	C, P
CO3	Understand the concept of Advance Data Structures.	3	C
CO4	Apply different problem solving paradigms to solve computational problems.	3	C, P
CO5	Understand the concept of NP-Problem, Randomized and Approximations algorithm.	3	C,P

CO-PO-PSO Mapping

(Design and Analysis of Algorithm, KCS 503)

CO No.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	-	-	-	-	-	-	-	-	-	-	2	3	-
CO2	3	2	2	-	-	-	-	-	-	-	-	2	3	-
CO3	3	2	2	-	-	-	-	-	-	-	-	2	1	-
CO4	3	2	2	-	-	-	-	-	-	-	-	2	3	-
CO5	3	2	2	-	-	-	-	-	-	-	-	2	1	-
PO Target	3	2	2	-	-	-	-	-	-	-	-	2	2.2	-

Anurag Mishra

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Web Designing, KCS 052)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the principles of web design and different types of websites.	2	C
CO2	Apply the concepts of HTML & elements and in designing and development of web pages.	3	C, P
CO3	Implement the properties of Cascading Style Sheet (CSS) in designing web pages.	3	C, P
CO4	Apply the concepts of JavaScript to validate the website and to make it interactive.	3	C, P
CO5	Utilize the concept of Web Hosting and SEO for the quick response of websites.	3	C, P

CO-PO-PSO Mapping (Web Designing, KCS 052)

CO-No.	Programme-Outcome-(PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	1	2	2	-	-	-	-	-	2	-	-	-	1	-
CO2	2	2	3	-	-	-	-	-	-	-	-	-	2	-
CO3	2	2	3	-	-	-	-	-	-	-	-	-	2	-
CO4	2	2	3	-	-	-	-	-	-	-	-	-	3	-
CO5	2	3	3	2	3	-	-	-	2	-	-	-	3	-
PO Target	1.8	2.2	2.8	2	3	-	-	-	2	-	-	-	2.2	-

Shivani

(SHIVANI)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Machine Learning Techniques, KCS 055)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the need for machine learning for various problem solving.	2	C
CO2	Analyze a wide variety of machine learning techniques and learn how these techniques are suitable for solving different real-world problems.	3	C
CO3	Understand the latest trends in machine learning.	2	C
CO4	Apply various machine learning algorithms to real-world problems.	3	C, P
CO5	Optimize the models learned and report on the expected accuracy.	3	C, P

CO-PO-PSO Mapping (Machine Learning Techniques, KCS 055)

CO-No.	Programme-Outcome-(PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	-	1	-	-	-	2	-	-	-	1	1	1	2	-
CO2	3	2	-	-	-	2	-	-	-	1	1	1	2	-
CO3	-	1	-	-	-	2	-	-	-	1	1	1	2	-
CO4	3	2	-	-	-	2	-	-	1	1	1	1	2	-
CO5		2	-	-	-	2	-	-	-	1	1	1	2	-
PO Target	2.67	1.6	-	-	-	2	-	-	1	1	1	1	2	-

(Dr. Kalpna Sagar)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Practical

Course Outcome (DBMS Lab, KCS 551)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Implement the concepts of table creation, views, indexes and other database objects using Oracle 10g express edition.	3	P
CO2	Solve simple and complex queries using DDL, DML, DCL and TCL.	3	P
CO3	Utilize entity integrity, referential integrity, key constraints and domain constraints on database.	3	P
CO4	Implement the PL/SQL blocks, procedure functions, packages and triggers, cursors.	3	P
CO5	Design a database schema for a real-world problem like Hospital management system.	3	P

CO-PO-PSO Mapping (DBMS Lab, KCS 551)

CO No.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	3	-	1	3	-	-	-	-	-	2	2	-	-
CO2	3	3	-	3	-	-	-	-	-	-	2	2	-	-
CO3	3	3	-	3	-	-	-	-	-	-	2	2	-	-
CO4	3	3	-	3	-	-	-	-	-	-	2	2	-	-
CO5	3	3	2	3	-	-	-	-	-	-	3	3	2	3
PO Target	3	3	2	2.6	3	-	-	-	-	-	2.2	2.2	2	3

Shivani

(Shivani)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (CD LAB, KCS 552)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Implement the Lexical Analyzer using C language.	3	C, P
CO2	Utilize the LINUX utility LEX tool for Lexical Analysis.	3	C, P
CO3	Experiment with the knowledge of different parsers (Operator precedence, shift reduce etc.) using C language.	3	C, P
CO4	Implement Intermediate code generation and optimization for various expressions.	3	C, P

CO-PO-PSO Mapping (CD LAB, KCS 552)

CO-No.	Programme-Outcome-(PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	3	-	-	-	-	-	-	1	-	-	1	-	-
CO2	3	3	-	-	2	-	-	-	1	-	-	1	-	-
CO3	3	3	-	-	-	-	-	-	1	-	-	1	-	-
CO4	3	3	-	-	-	-	-	-	1	-	-	1	-	-
PO Target	3	3	-	-	2		-	-	1	-	-	1	-	-

AKASH GOEL

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (DAA LAB, KCS 553)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Implement algorithms to solve problems by iterative approach.	3	C
CO2	Implement algorithm to solve problems by divide and conquer approach.	3	C, P
CO3	Implement algorithms to solve problems by the Greedy algorithm approach.	3	C, P
CO4	Implement algorithms to solve problems by Dynamic programming, backtracking, branch and bound approach.	3	C, P

CO-PO-PSO Mapping (DAA LAB, KCS 553)

CO-No.	Programme-Outcome-(PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	2	1	2	2	-	-	-	-	-	-	1	3	-
CO2	3	2	1	2	2	-	-	-	-	-	-	1	3	-
CO3	3	2	1	2	2	-	-	-	-	-	-	1	3	-
CO4	3	2	1	2	3	-	-	-	-	-	-	1	3	-
PO Target	3	2	1	2	2.25	-	-	-	-	-	-	1	3	-

Raj Kumar

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Mini Project, KCS 554)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Identify a problem and gather its requirements.	3	C
CO2	Design a solution of the problem using latest tools & techniques.	6	M
CO3	Develop a project using latest technology.	5	M
CO4	Develop professional skills and critical thinking to prepare for major project.	5	M
CO5	Demonstrate an ability to present project works to the evaluators.	3	C

CO-PO-PSO Mapping (Mini Project, KCS 554)

CO-No.	Programme-Outcome-(PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	3	3	3	3	2	-	-	2	2	2	3	2	2
CO2	3	3	3	3	3	-	-	-	2	-	2	3	2	3
CO3	3	3	3	3	3	1	-	-	3	-	2	2	3	2
CO4	3	3	3	3	3	2	-	2	3	2	2	3	2	2
CO5	2	-	-	-	3	-	-	2	2	3	2	3	2	2
PO Target	2.8	3	3	3	3	1.67	-	2	2.4	2.33	2	2.8	2.2	2.20

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Session:- 2022-23 Semester:- 6th

Theory

Course Outcome (Software Engineering, KCS 601)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Explain various software characteristics and different types of software development models.	2	C
CO2	Prepare the contents of SRS and apply basic software quality assurance practices.	2	C
CO3	Apply various methods for software design techniques.	3	C
CO4	Illustrate various software testing techniques.	2	C
CO5	Examine various software maintenance and project management techniques.	2	C

CO-PO-PSO Mapping(Software Engineering, KCS 601)

CO No.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	2	1	2	-	-	-	-	-	-	1	-	-	1
CO2	2	2	1	2	-	-	-	-	-	-	1	-	-	1
CO3	2	2	2	2	-	-	-	-	-	-	1	-	-	1
CO4	2	2	2	2	-	-	-	-	-	-	1	-	-	1
CO5	2	2	2	2	-	-	-	-	-	-	1	-	-	1
PO Target	2	2	1.6	2	-	-	-	-	-	-	1	-	-	1

(Arti Sharma)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Web Technology, KCS 602)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Develop Java programs for window/web-based applications with understanding of web development Strategies and Protocols governing Web.	3	C, P
CO2	Design web pages using HTML, XML, CSS and JavaScript.	3	C, P
CO3	Create of web pages using JavaScript & AJAX and client-server environment using socket programming.	3	C, P
CO4	Building enterprise level applications and manipulate web databases using JDBC	3	C, P
CO5	Design interactive web applications using Servlets and JSP	4	C, P

CO-PO-PSO Mapping (Web Technology, KCS 602)

CO No.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	1	2	3	3	-	-	-	-	-	-	-	-	3	-
CO2	1	1	3	1	-	-	-	-	-	-	-	-	2	-
CO3	1	2	3	3	-	-	-	-	-	-	-	-	3	-
CO4	1	2	3	3	-	-	-	-	-	-	-	2	3	-
CO5	2	2	3	3	-	-	-	-	-	-	-	2	3	-
PO Target	1.2	1.8	3	2.6	-	-	-	-	-	-	-	2	2.8	-

Shivani

(Shivani)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Computer Networks, KCS 603)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the basic concepts of networking, networking models, schemes and devices.	2	C
CO2	Understand the different protocols used at application layer i.e. HTTP, SNMP, SMTP, FTP, TELNET and VPN. and the recent technologies on networking.	2	C
CO3	Understand the data link layer and its components like channel allocation, framing, error and flow control techniques in computer networks.	2	C
CO4	Apply various methods of Logical addressing, subnetting & Routing Mechanism on different practical scenarios.	3	C
CO5	Analysis of various Transport Layer function i.e. Port addressing, Connection Management, Error control and Flow control mechanism based on the QoS parameters.	3	C

CO-PO-PSO Mapping (Computer Networks, KCS 603)

CO No.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	2	1	-	-	-	-	-	-	-	-	2	3	-
CO2	3	2	1	1	-	-	-	-	-	-	-	2	3	-
CO3	3	2	1	1	-	-	-	-	-	-	-	2	2	-
CO4	3	3	2	1	-	-	-	-	-	-	-	2	2	-
CO5	3	3	2	1	-	-	-	-	-	-	-	2	2	-
PO Target	3	2.4	1.4	1	-	-	-	-	-	-	-	2	2.4	-

(Pawan Pal)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Big Data, KCS 061)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the knowledge of Big Data concepts, its architecture and applications.	3	C
CO2	Demonstrate the components of Hadoop and Map Reduce Framework.	3	C
CO3	Demonstrate the Hadoop Distributed File System and setting up it's environment.	3	C
CO4	Demonstrate NoSQL database and tools for job scheduling.	3	C
CO5	Demonstrate Pig, HIVE and HBASE to abstract Hadoop Eco System.	3	C

CO-PO-PSO Mapping (Big Data, KCS 061)

CO No.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	2	2	-	-	-	-	-	-	-	2	2	-	2
CO2	3	3	2 -	-	2	-	-	-	-	-	2	2	2	2
CO3	3	1	2 -	-	-	-	-	-	-	-	2	2	-	2
CO4	3	3	2 -	-	3	-	-	-	-	-	2	2	2	2
CO5	3	3	2 -	-	3	-	-	-	-	-	2	2	1	2
PO Target	3	2.4	2	-	2.67	-	-	-	-	-	2	2	1.67	2

(Anurag Mishra)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Software Project Management, KOE 068)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Determine the Cost benefit of the Projects with thorough understanding of project planning activities and the key phases of project management.	3	C,P
CO2	Utilize an appropriate management strategy after identifying the different project contexts	3	C,P
CO3	Apply different software process models and cost estimation models for development of a project.	3	C,P
CO4	Make use of various project activities to compute critical path for risk analysis.	3	C,P
CO5	Illustrate the role of professional ethics in team building for successful software development.	3	C,P

CO-PO-PSO Mapping (Software Project Management, KOE 068)

CO NO.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	-	-	-	-	-	-	-	-	-	2	2	-	-	-
CO2	1	2	-	-	-	-	-	-	3	-	-	-	-	-
CO3	2	2	-	-	-	-	-	-	-	-	-	-	-	-
CO4	2	2	-	-	-	-	-	-	-	-	-	-	-	-
CO5	-	-	2	-	-	-	-	2	3	2	2	-	-	-
PO Target	1.67	2	2	-	-	-	-	2	3	2	2	-	-	-

Shivani (SHIVANI)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Practical

Course Outcome (SE LAB, KCS 651)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Discover ambiguities, inconsistencies and incompleteness in SRS document and to identify its functional and non-functional requirements.	3	C
CO2	Demonstrate use case diagrams by identifying different actors and use cases from a given problem statement.	3	C
CO3	Prepare a class diagram after identifying classes and association among them.	3	C
CO4	Illustrate UML diagrams and associations among them by identifying the logical sequence of activities undergoing in a system.	3	C
CO5	Articulate the use of modern engineering tools for software specification, design, implementation and testing.	3	C

CO-PO-PSO Mapping (SE LAB, KCS 651)

CO NO.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	2	2	2	2	-	-	-	-	-	-	-	-	1
CO2	2	2	2	2	2	-	-	-	-	-	-	-	-	1
CO3	2	2	2	3	2	-	-	-	-	-	-	-	-	1
CO4	2	2	2	2	2	-	-	-	-	-	-	-	-	1
CO5	2	2	2	2	2	-	-	-	-	-	-	-	-	1
PO Target	2	2	2	2.2	2	-	-	-	-	-	-	-	-	1

Akash Goel

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Software Project Management, KOE 068)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Determine the Cost benefit of the Projects with thorough understanding of project planning activities and the key phases of project management.	3	C,P
CO2	Utilize an appropriate management strategy after identifying the different project contexts	3	C,P
CO3	Apply different software process models and cost estimation models for development of a project.	3	C,P
CO4	Make use of various project activities to compute critical path for risk analysis.	3	C,P
CO5	Illustrate the role of professional ethics in team building for successful software development.	3	C,P

CO-PO-PSO Mapping (Software Project Management, KOE 068)

CO NO.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	-	-	-	-	-	-	-	-	-	2	2	-	-	-
CO2	1	2	-	-	-	-	-	-	3	-	-	-	-	-
CO3	2	2	-	-	-	-	-	-	-	-	-	-	-	-
CO4	2	2	-	-	-	-	-	-	-	-	-	-	-	-
CO5	-	-	2	-	-	-	-	2	3	2	2	-	-	-
PO Target	1.67	2	2	-	-	-	-	2	3	2	2	-	-	-

Shivani
(SHIVANI)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Practical

Course Outcome (SE LAB, KCS 651)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Discover ambiguities, inconsistencies and incompleteness in SRS document and to identify its functional and non-functional requirements.	3	C
CO2	Demonstrate use case diagrams by identifying different actors and use cases from a given problem statement.	3	C
CO3	Prepare a class diagram after identifying classes and association among them.	3	C
CO4	Illustrate UML diagrams and associations among them by identifying the logical sequence of activities undergoing in a system.	3	C
CO5	Articulate the use of modern engineering tools for software specification, design, implementation and testing.	3	C

CO-PO-PSO Mapping (SE LAB, KCS 651)

CO NO.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	2	2	2	2	-	-	-	-	-	-	-	-	1
CO2	2	2	2	2	2	-	-	-	-	-	-	-	-	1
CO3	2	2	2	3	2	-	-	-	-	-	-	-	-	1
CO4	2	2	2	2	2	-	-	-	-	-	-	-	-	1
CO5	2	2	2	2	2	-	-	-	-	-	-	-	-	1
PO Target	2	2	2	2.2	2	-	-	-	-	-	-	-	-	1

Akash Goel

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (WT LAB, KCS 652)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Develop static web pages using HTML, CSS.	3	C
CO2	Develop Java programs for window/web-based applications.	3	C
CO3	Design dynamic web pages using Javascript and XML.	3	C
CO4	Design dynamic web page using server site programming Ex. SERVLET and JSP.	3	C
CO5	Design server site applications using JDDC, ODBC and session tracking API.	3	C

CO-PO-PSO Mapping (WT LAB, KCS 652)

CO NO.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	-	2	3	3	2	1	-	-	-	-	-	2	3	-
CO2	2	-	3	3	2	1	-	-	-	-	-	2	3	-
CO3	-	2	3	3	2	1	-	-	-	-	-	2	3	-
CO4	-	2	3	3	2	2	-	-	-	-	-	2	3	-
CO5	-	-	3	3	2	1	-	-	-	-	-	2	3	-
PO Target	2	2	3	3	2	1.2	-	-	-	-	-	2	3	-

(SHIVANI)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (CN LAB, KCS 653)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Examine the networking commands and configuring network hardware.	3	C
CO2	Demonstrate the working of different network topologies.	3	C
CO3	Apply the concepts of Framing, stop & wait ARQ, Network addressing and routing.	3	C
CO4	Construct the Transport layer protocols-based sockets for various applications.	3	C
CO5	Implement transport and security mechanisms.	3	C

CO-PO-PSO Mapping (CN LAB, KCS 653)

CO NO.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	2	2	3	2	-	-	-	-	-	2	-	-	-
CO2	2	-	2	2	2	-	-	-	-	-	2	-	-	-
CO3	2	2	3	3	-	-	-	-	-	-	-	-	-	-
CO4	3	3	2	3	2	-	-	-	-	-	2	-	-	-
CO5	3	2	3	2	2	-	-	-	-	-	2	-	-	-
PO Target	2.4	2.25	2.4	2.6	2	-	-	-	-	-	2	-	-	-

(Pawan Kumar Pal)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

CO PO and Mapping of CO PO 4th Year

Session:- 2022-23 Semester:- 7th

Theory

Course Outcome (Distributed System, KCS 077)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the theoretical foundation of distributed system along with its applications in real world.	2	C
CO2	Analyze various methods suggested for process synchronization and deadlock handling in context of distributed environment.	4	M
CO3	Apply agreement protocols to solve various problems in distributed system.	3	C, P
CO4	Apply different mechanism developed for recovery from fault and fault tolerance.	3	C, P
CO5	Understand and solve various issues in distributed transaction.	3	C, P

CO-PO-PSO Mapping (Distributed System, KCS 077)

CO NO.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	2	-	2	-	-	-	-	-	-	-	2	-	-
CO2	3	2	-	3	-	-	-	-	-	-	-	2	-	-
CO3	3	2	-	2	-	-	-	-	-	-	-	1	-	-
CO4	3	2	-	2	-	-	-	-	-	-	-	1	-	-
CO5	3	2	-	2	-	-	-	-	-	-	-	2	-	-
PO Target	2.8	2	-	2.2	-	-	-	-	-	-	-	1.6	-	-

(AKANSHA)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome
(Project Management Entrepreneurship, KHU 702)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the theories of entrepreneurship and entrepreneurial development programmes.	2	F
CO2	Explain innovative business ideas and market opportunities for business development.	2	C
CO3	Discuss the importance of project life cycle and different types of appraisal techniques.	2	C
CO4	Predict different types of project financing requirements on the basis of cash flow statements.	3	C, P
CO5	Describe social entrepreneurship opportunities and risk management techniques in social enterprises.	2	C

CO-PO-PSO Mapping
(Project Management Entrepreneurship, KHU 702)

CO NO.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	-	-	-	-	-	1	-	-	2	-	3	-	-	
CO2	-	-	-	-	-	1	-	-	3	-	3	-	-	1
CO3	-	-	-	-	-	2	-	-	3	-	3	-	-	-
CO4	-	-	-	-	-	1	-	-	3	2	3	-	-	-
CO5	-	-	-	-	-	3	2	-	2	-	3	-	-	2
PO Target	-	-	-	-	-	1.6	2	-	2.6	2	3	-	-	1.5

(Vikas Kamra)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Renewable Energy Resources, KOE 074)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the renewable and non-renewable sources of energy.	2	F
CO2	Explain the working principle of various solar energy systems.	2	F,C
CO3	Understand the Geothermal &Tidal energy, its mechanism of production and its applications.	2	F,C
CO4	Interpret and Identify the significance of Winds energy as an alternative form of energy.	1	F,C
CO5	Discover the basics of renewable, biomass energy sources and relevant thermodynamics.	2	F,C

CO-PO-PSO Mapping (Renewable Energy Resources, KOE 074)

CO NO.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	3	-	-	-	-	3	-	-	-	-	-	-	-
CO2	2	2	-	-	-	-	3	-	-	-	-	-	-	-
CO3	3	3	-	-	-	-	-	-	-	-	-	3	-	-
CO4	3	3	-	-	-	-	2	-	-	-	-	2	-	-
CO5	2	2	-	-	-	-	3	-	-	-	-	-	-	-
PO Target	2.4	2.6	-	-	-	-	2.75	-	-	-	-	2.5	-	-

Pallavi
(Pallavi Sharma)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome
(Project Management Entrepreneurship, KHU 702)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the theories of entrepreneurship and entrepreneurial development programmes.	2	F
CO2	Explain innovative business ideas and market opportunities for business development.	2	C
CO3	Discuss the importance of project life cycle and different types of appraisal techniques.	2	C
CO4	Predict different types of project financing requirements on the basis of cash flow statements.	3	C, P
CO5	Describe social entrepreneurship opportunities and risk management techniques in social enterprises.	2	C

CO-PO-PSO Mapping
(Project Management Entrepreneurship, KHU 702)

CO NO.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	-	-	-	-	-	1	-	-	2	-	3	-	-	
CO2	-	-	-	-	-	1	-	-	3	-	3	-	-	1
CO3	-	-	-	-	-	2	-	-	3	-	3	-	-	-
CO4	-	-	-	-	-	1	-	-	3	2	3	-	-	-
CO5	-	-	-	-	-	3	2	-	2	-	3	-	-	2
PO Target	-	-	-	-	-	1.6	2	-	2.6	2	3	-	-	1.5

(Vikas Kamra)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Practical

Course Outcome (Distributed System Lab, KCS 751A)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Implement Logical Clock and Vector Clock using Java or C.	3	C
CO2	Implement Distributed Mutual Exclusion using Java or C.	3	C, P
CO3	Implement file transfer mechanism across a network and accessing methods of remote systems using network protocols and socket programs with the use of Java or C.	3	C, P

CO-PO-PSO Mapping (Distributed System Lab, KCS 751)

CO NO.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	2	-	1	-	-	-	-	-	-	-	-	-	-
CO2	3	1	-	1	-	-	-	-	-	-	-	-	-	-
CO3	3	1	-	1	-	-	-	-	-	-	-	-	-	-
PO Target	3	1.333	-	1	-	-	-	-	-	-	-	-	-	-

(AKANSHA)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Internship Assessment, KCS 752)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understanding the modern tools used in the field of Computer science and engineering for product development.	2	C
CO2	Demonstrate ethical conduct and professional accountability while working in a team for the benefit of society.	4	C, P
CO3	Understand the resources requirement and planning to facilitate the project success.	2	C

CO-PO-PSO Mapping (Internship Assessment, KCS 752)

CO NO.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	2	-	-	-	-	-	-	-	-	2	1	-	-
CO2	2	2	-	-	-	-	-	-	-	-	2	2	-	-
CO3	2	2	-	-	-	-	-	-	-	-	2	2	-	-
PO Target	2	2	-	-	-	-	-	-	-	-	2	1.67	-	-

(CHARU VARDHAN)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Project Lab, KCS 753)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Select and Summarize all aspects of real life problem through information gathering.	2	F
CO2	Apply acquired knowledge to develop a conceptual model.	3	C, P
CO3	Analyse the outcome of each phase using various tools and techniques.	4	C, P
CO4	Justify/ Defend the validity of idea or quality of result with the previous data/ result.	5	C, P
CO5	Test the working model and Integrate all the phases.	6	C, P

CO-PO-PSO Mapping (Project Lab, KCS 753)

CO NO.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	-	3	3	3	3	1	2	-	3	2	3	3	3	3
CO2	-	3	3	3	2	1	2	-	3	2	3	3	3	3
CO3	-	3	3	3	2	1	2	-	3	2	3	3	3	3
CO4	-	3	3	3	2	1	2	-	3	2	2	2	3	3
CO5	-	3	3	3	2	1	2	-	3	2	1	2	3	3
PO Target	-	3	3	3	2.2	1	2	-	3	2	2.4	2.6	3	3

Dr. Sapna Juneja

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

CO PO and Mapping of CO PO 4th Year

Session:- 2022-23 Semester:- 8th

Theory

Course Outcome (Quality Management, KOE 085)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the quality concept and its components.	2	C
CO2	Understand the concepts of quality management and performance excellence in organization.	2	C
CO3	Apply the several techniques and quality management tools.	3	C,P
CO4	Analyze the defects, reliability and maintainability after the interpretation of test results.	4	C,P
CO5	Understand the quality system certification process.	2	C

CO-PO-PSO Mapping (Quality Management, KOE 085)

CO NO.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	-	-	-	-	-	1	-	2	2	2	1	1	-	-
CO2	-	-	-	-	-	-	-	2	2	2	-	1	-	-
CO3	-	-	-	-	1	-	-	-	-	2	1	-	-	-
CO4	-	1	1	-	-	-	-	-	2	2	1	1	-	-
CO5	-	-	-	-	-	-	-	2	-	2	-	-	-	-
PO Target	-	1	1	-	1	1	-	2	2	2	1	1	-	-

(Abhishek Goyal)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Digital & Social Media, KOE 094)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Acquire the knowledge about the Digital Marketing, the various channels through which it operates and it's role in marketing strategy.	2	F,C
CO2	Gain understanding of various social media platforms and the creation of blogs.	3	C,P
CO3	Assess the best practices in digital marketing field across various markets and gain knowledge of various digital marketing tool.	2	F,C
CO4	Formulate Digital marketing Strategies for an organization.	3	C,P
CO5	Analyze the privacy, security, content and ethicality issues associated with digital and social media platforms.	2	F,C

CO-PO-PSO Mapping (Digital & Social Media, KOE 094)

CO NO.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	-	-	-	-	-	2	-	-	-	3	-	1	-	-
CO2	-	-	-	-	-	1	-	-	1	3	-	1	-	-
CO3	-	-	-	-	2	1	-	-	2	3	-	1	-	-
CO4	-	-	-	-	2	2	-	-	2	3	-	1	-	-
CO5	-	-	-	-	-	2	-	-	1	3	-	1	-	-
PO Target	-	-	-	-	2	1.6	-	-	1.5	3	-	1	-	-

pallavi (PALLAVI SHARMA)

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Course Outcome (Rural Development, KHU 801)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Describe the definitions, concepts and components of Rural Development.	3	C
CO2	Explain the importance, structure, significance, resources of Indian rural economy	3	C
CO3	Identify Rural development programmes and their impact.	3	C
CO4	Explain the use of different methods of human resource planning.	3	C
CO5	Acquire knowledge about rural entrepreneurship.	3	C

CO-PO-PSO Mapping (Rural Development, KHU 801)

CO NO.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	-	-	-	-	-	3	-	1	-	1	-	1	-	-
CO2	-	-	-	-	-	3	-	1	2	1	-	1	-	-
CO3	-	-	-	-	-	2	3	1	2	1	-	1	-	-
CO4	-	-	-	-	-	3	-	1	1	1	-	1	-	-
CO5	-	-	-	-	-	1	-	1	-	1	-	1	-	-
PO Target	-	-	-	-	-	2.4	3	1	1.67	1	-	1	-	-

RAHUL KUMAR

KIET GROUP OF INSTITUTIONS, GHAZIABAD

Department of Computer Science

Practical

Course Outcome (Project, KCS 851)

CO_No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Identify real-life problems through effective information gathering for comprehensive understanding.	3	C
CO2	Apply diverse insights collaboratively to develop a robust conceptual problem-solving model.	3	C
CO3	Develop a prototype/experimental set-up necessary to complete the project.	3	C
CO4	Examine acquired results thoroughly, drawing meaningful conclusions through in-depth discussion and comprehensive analysis.	3	C
CO5	Demonstrate effective teamwork, presentation, and communication skills among team members.	3	C
CO6	Compile experimental information to publish in journals/conference/Patent.	3	C

CO-PO-PSO Mapping (Project, KCS 851)

CO NO.	Programme Outcome (PO)												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	3	3	3	2	3	2	-	3	2	2	3	3	-
CO2	3	3	3	3	-	-	3	-	-	-	-	3	3	-
CO3	3	3	3	3	3	-	-	-	-	-	-	3	3	-
CO4	3	3	3	3	-	-	-	-	-	-	-	3	3	-
CO5	-	-	-	-	-	-	-	3	3	3	3	3	3	-
CO6	2	3	-	3	-	-	-	2	-	-	-	3	3	3
PO Target	2.8	3	3	3	2.5	3	2.5	2.5	3	2.5	2.5	3	3	3

Sapna

DR. SAPNA JUNEJA