



**Course Outcome
and
CO-PO/PSO Mapping**

(Session 2024-25)

**DEPARTMENT OF COMPUTER SCIENCE AND
INFORMATION TECHNOLOGY**

**KIET GROUP OF INSTITUTIONS
GHAZIABAD**

SEMESTER –III

SN	Subject Code	Subject	Type	Category	Periods			Sessional Component		Sessional (SW) (TS/PS)	End Semester Examination (ESE)	Total SW+ESE	Credit Cr
					L	T	P	CT	TA	CT+TA	TE/PE		
1	BOE3** / BAS303	Science Based Open Elective/BSC (Maths-III/Math IV/ Math V)	T	ES/BS	3	1	0	20	10	30	70	100	4
2	BVE301 / BAS301	Universal Human Value and Professional Ethics/ Technical Communication	T	VA/HS	2	1	0	20	10	30	70	100	3
3	BCS301	Data Structure	T	PC	3	1	0	20	10	30	70	100	4
4	BCS302	Computer Organization and Architecture	T	PC	3	1	0	20	10	30	70	100	4
5	BCS303	Discrete Structures & Theory of Logic	T	PC	2	1	0	20	10	30	70	100	3
6	BCS351	Data Structure Lab	P	PC	0	0	2		50	50	50	100	1
7	BCS352	Computer Organization and Architecture Lab	P	PC	0	0	2		50	50	50	100	1
8	BCS353	Web Designing Workshop	P	PC	0	0	2		50	50	50	100	1
10	BCC301 / BCC302	Cyber Security/Python programming	T	VA	2	0	0	20	10	30	70	100	2
11	BCC351	Internship Assessment /Mini Project*	P							100		100	2
		Total			15	5	6						25

- **Mathematics –III** for CE / ENV and allied branches
- **Mathematics-IV** for Computer/Electronics/Electrical & allied Branches, Mechanical & Allied Branches Textile/Chemical & allied Branches
- **Mathematics-V** for Bio Technology / Agriculture Engineering

Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-25	Semester: III
Course Name: Sensor and Instrumentation	Course Code: BOE305	Faculty Name: Sheetal

Tagging COs with BLs & KCs

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.	Understand	Conceptual, Procedural
CO2	Understand the uses of sensors in industry for measurement of temperature, position, accelerometer, vibration sensor, flow and level.	Understand	Conceptual, Procedural
CO3	Apply the concept of virtual instrumentation in automation industries.	Apply	Factual, Procedural
CO4	Understand, Identify and use data acquisition methods.	Understand	Conceptual, Procedural
CO5	Understand intelligent instrumentation in industrial automation.	Understand	Conceptual, Procedural

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Course Code	Sensor and Instrumentation (BOE305)													
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	3	2	-	-	-	-	-	-	-	-	-	-	3	-
CO2	3	3	-	-	2	-	-	-	-	-	-	-	2	-
CO3	3	2	-	-	3	-	-	-	-	-	-	-	2	-
CO4	2	3	-	-	-	-	-	-	-	-	-	-	-	-
CO5	2	2	-	-	2	-	-	-	-	-	-	-	2	-
PO Target	2.60	2.40	-	-	2.25	-	-	-	-	-	-	-	2.20	-

Signature of Course Coordinator

Signature of Addl. HoD

Signature of HoD
 Computer Science and Information Technology
 KIET, Ghaziabad

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-25	Semester: III
Course Name: Universal Human Values and Professional Ethics	Course Code: BVE301	Faculty Name: Arti Pandey

Tagging COs with BLs & KCs		
CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)
	After completion of the course, the student will be able to	
CO1	Understand the process of self-exploration and meaning of natural acceptance.	Understand
CO2	Understand the meaning of Harmony in the Co-existence of Self and Body .	Understand
CO3	Understand the value of harmonious relationship based on trust, respect and other naturally acceptable feelings in human-human relationships.	Understand
CO4	Analyze the harmony in nature and existence by fulfilling participation in the nature.	Analyze
CO5	Apply the role of holistic understanding of harmony in professional ethics.	Apply
		Knowledge Category (KC)
		Conceptual
		Conceptual
		Conceptual
		Conceptual
		Conceptual, Procedural

Mapping of Course outcomes with Program outcomes CO-POs Matrix														
Universal Human Values and Professional Ethics (BVE301)														
Course Code	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	-	-	-	-	-	-	1	1	1	-	-	2	-	-
CO2	-	-	-	-	-	-	2	3	2	-	-	2	-	-
CO3	-	-	-	-	-	1	2	3	2	-	1	2	-	-
CO4	-	-	-	-	-	1	2	3	2	-	-	2	-	-
CO5	-	-	-	-	-	1	2	3	2	-	1	3	-	-
PO Target	-	-	-	-	-	1.00	1.80	2.60	1.80	-	1.00	2.20	-	-

Signature of Course Coordinator

Signature of Addl. HoD

Signature of HoD
 Dean

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- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
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Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-2025	Semester: III
Course name: Data Structure	Course Code: BCS301	Faculty Name: Dr. Meeta Chaudhry

Tagging COs with BLs & KCs			
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 operations of Array and Linked list through data structure concepts.	Apply	Conceptual, Procedural
CO2	Apply the concept of Stack and queue in real life problems.	Apply	Conceptual, Procedural
CO3	Implement sorting, searching algorithms and find their complexity.	Apply	Conceptual, Procedural
CO4	Implement the concepts of trees.	Apply	Conceptual, Procedural
CO5	Use the concepts of graph for solving problem.	Apply	Conceptual, Procedural

Mapping of Course outcomes with Program outcomes CO-POs Matrix														
Course Code	Data Structure (BCS301)													
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	3	2	1	-	-	-	-	-	-	1	-	1	-	-
CO2	1	2	2	-	-	-	-	-	-	1	-	3	-	-
CO3	1	2	2	-	-	-	-	-	-	2	-	1	-	-
CO4	1	2	3	-	-	-	-	-	-	-	-	-	-	1
CO5	1	2	2	-	-	-	-	-	-	1	-	3	-	1
PO Target	1.4	2.0	2.0	-	-	-	-	-	-	1.25	-	2.0	-	1.0

Signature of Course Coordinator

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Signature of HoD

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- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are

Department for Computer Science and Information Technology

Program Name: B. Tech	Academic Session: 2024-25	Semester: III
Course name: Computer Organization & Architecture	Course Code: BCS-302	Faculty Name: Mrs. Supriya Dubey

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	Summarize the fundamental components of basic computer system and its organization.	Understand	Conceptual
CO2	Apply arithmetic and logical microoperations of binary number system.	Apply	Conceptual, Procedural
CO3	Analyze control unit design and concept of pipelining.	Analyze	Conceptual, Procedural
CO4	Classify memory hierarchy and examine numerical problem based on it.	Analyze	Conceptual, Procedural
CO5	Justify the concept of input output organization.	Evaluate	Conceptual, Procedural

Computer Organization & Architecture (BCS-302)														
Course Code	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO-1	3	2	2	3	2	-	-	-	-	-	-	2	-	2
CO-2	3	2	2	2	2	-	-	-	-	-	-	2	-	-
CO-3	2	2	3	3	2	-	1	-	-	-	-	2	2	-
CO-4	3	2	3	2	2	-	-	-	-	2	-	2	-	-
CO-5	2	2	3	2	2	-	-	-	-	-	-	2	-	-
PO Target	2.6	2	2.6	2.4	2	-	1	-	-	2	-	2	2	2

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- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ ind **Computer Science and Information Technology** should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
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Dean

KIET, Ghaziabad

Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-25	Semester: III
Course Name: Discrete Structures & Theory of Logic	Course Code: BCS-303	Faculty Name: Dr. Rohit Vashisht

Tagging COs with BLs & KCs			
CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
CO1	After completion of the course, the student will be able to Acquire Knowledge of sets and relations for solving problems of POSET and lattices.	Apply	Conceptual, Procedural
CO2	Apply fundamental concepts of functions and Boolean algebra for solving the problems of logical abilities.	Apply	Conceptual, Procedural
CO3	Employ the rules of propositions and predicate logic to solve the complex and logical problems.	Apply	Conceptual, Procedural
CO4	Explore the concepts of group theory and their applications for solving the advance technological problems.	Analyze	Conceptual, Procedural
CO5	Illustrate the principles and concepts of graph theory for solving problems related to computer science.	Analyze	Conceptual, Procedural

Mapping of Course outcomes with Program outcomes CO-POs Matrix														
Discrete Structures & Theory of Logic (BCS-303)														
Course Code	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO-1	3	1	1	1	1	-	-	-	-	-	-	1	-	1
CO-2	3	1	1	-	2	-	-	-	-	-	-	1	-	1
CO-3	3	1	1	2	2	-	-	-	-	-	-	1	-	1
CO-4	3	2	1	-	1	-	-	-	-	-	-	1	-	2
CO-5	3	3	2	1.5	1.6	-	-	-	-	-	-	2	-	2
PO Target	3	1.6	1.2	1.5	1.6	-	-	-	-	-	-	1.2	-	1.4

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 KIET, Ghaziabad

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Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024 -2025	Semester: III
Course name: Data Structure Lab	Course Code: BCS351	Faculty Name: Dr. Meeta Chaudhry

Tagging COs with BLs & KCs			
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 Sorting and Searching Algorithms.	Apply	Conceptual Procedural
CO2	Implement various data structure using static and dynamic memory allocation.	Analyze	Conceptual Procedural
CO3	Demonstrate various type of Trees and Graphs traversal techniques and operations	Apply	Conceptual Procedural

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Course Code	Data Structure Lab (BCS351)													
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	3	3	3	1	3	1	-	1	1	2	-	2	1	1
CO2	3	3	3	3	3	1	-	1	1	2	-	2	1	1
CO3	3	3	3	1	3	3	-	1	1	2	-	2	2	1
PO Target	3.00	3.00	3.00	1.67	3.00	1.67	-	1.00	1.00	2.00	-	2.00	1.33	1.00

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Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-25	Semester: III
Course name: Computer Organization and Architecture Lab	Course Code: BCS-352	Faculty Name: Mrs. Supriya Dubey

Tagging COs with BLs & KCs		Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
CO No.				
	After completion of the course, the student will be able to			
CO1	Design and simulate combinational circuits for encoders/decoders and selection devices multiplexers/de-multiplexers using logic gates.	Apply		Procedural
CO2	Design and simulate combinational circuits for binary arithmetic (such as adders, subtractors, and multipliers) and code converters.	Apply		Procedural
CO3	Design and simulate the basic building blocks of the sequential circuits (i.e., SR and D FF) using logic gates.	Apply		Procedural

Mapping of Course outcomes with Program outcomes CO-POs Matrix														
Computer Organization and Architecture Lab(BCS-352)														
Course Code	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO-1	2	1	1	2	1	2	1	1	1	1	1	1	2	1
CO-2	1	1	-	1	1	-	2	-	-	2	1	1	1	-
CO-3	2	2	2	1	1	2	1	-	1	1	1	1	2	1
PO Target	1.67	1.33	1.50	1.33	1.00	2.00	1.33	1.00	1.00	1.33	1.00	1.00	1.67	1.00

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 KIET, Ghaziabad

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- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

Department for Computer Science and Information Technology

Program Name: B.Tech.	Academic Session: 2024-25	Semester: III
Course Name: Web Designing Workshop	Course Code: BCS353	Faculty Name: Ms. Garima Singh

Tagging COs with BLs & KCs

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 concept of layout and structure of Hypertext markup language (HTML). Apply Cascading style sheets (CSS) integration and Bootstrapping in HTML pages. Apply the JavaScript concept to process and validate the data of a web page on the client Machine.	Understand Apply	Conceptual, Procedural Conceptual, Procedural
CO2			
CO3	Design the website with the application of HTML, CSS, and JavaScript.	Create	Conceptual, Procedural, Meta-Cognitive

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Course Code	Web Designing Workshop (BCS-353)													
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	2	2	2	2	2	1	1	1	1	1	2	3	2	2
CO2	3	2	2	2	2	1	1	1	1	1	2	3	2	2
CO3	3	3	3	3	3	1	1	1	1	1	2	3	2	3
PO Target	2.75	2.25	2.25	2.25	2.25	1	1	1	1	1	2	3	2	2.50

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 Computer Science and Information Technology
 KIET, Ghaziabad

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Accredited by
NAAC with Grade "A+"

Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-25	Semester: III
Course name: Python Programming	Course Code: BCC302	Faculty Name: Deep Kumar

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 fundamentals of Python syntax, semantics and Programming.	Understand	Factual, Conceptual
CO2	Acquire proficiency in handling strings and functions and be fluent in using Python control flow statements.	Apply	Conceptual, Procedural,
CO3	Determine the methods for ease of user to write python programs by utilizing the data structures like lists, dictionaries, tuples and sets.	Apply	Conceptual, Procedural
CO4	Apply the commonly used operations involved in file handling.	Apply	Conceptual, Procedural,
CO5	Explain and use different in-built functions of packages and connect with GUI programming.	Apply	Conceptual, Procedural

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Course Code	Python Programming (BCC302)													
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	2	1	-	-	-	-	-	-	-	-	-	-	1	-
CO2	2	2	1	-	-	-	-	-	-	-	-	2	2	1
CO3	3	3	1	1	1	-	-	-	-	-	-	2	2	1
CO4	3	2	2	1	1	-	-	-	-	-	-	2	2	1
CO5	3	3	2	1	1	-	-	-	-	-	-	2	2	1
PO Target	2.6	2.2	1.5	1	1	-	-	-	-	-	-	2	1.8	1

Signature of Course Coordinator

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Signature of HoD
Dean

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- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-25	Semester: III
Course name: Mini Project	Course Code: BCC351	Faculty Name: Deep Kumar

Tagging COs with BLs & KCs			
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	Correlate the technical knowledge acquired in the internships for solving real world problems	Analyze	Procedural
CO2	Use various tools for developing solution to the problem.	Create	Procedural
CO3	Validate technical information by means of written and oral reports.	Evaluate	Conceptual, Procedural

Mapping of Course outcomes with Program outcomes CO-POs Matrix														
Mini Project (BCC351)														
Course Code	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	1	3	1	1	-	3	2	3	3	-	3	3	-	1
CO2	1	-	3	3	2	1	-	3	3	1	3	3	-	2
CO3	1	-	-	1	-	-	-	3	3	3	3	2	-	1
PO Target	1	3	2	1.67	2	2	2	3	3	2	3	2.67	-	1.33

[Signature]

Signature of Course Coordinator

[Signature]

Signature of Addl. HoD

[Signature]

Signature of HoD

Computer Science and Information Technology
 K. J. Somaiya Institute of Technology

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

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- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

B.TECH (INFORMATION TECHNOLOGY AND CSI) CURRICULUM STRUCTURE

SEMESTER- V													
Sl. No.	Subject	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
	Codes		L	T	P	CT	TA	Total	PS	TE	PE		
1	KCS501	Database Management System	3	1	0	30	20	50		100		150	4
2	KIT501	Web Technology	3	1	0	30	20	50		100		150	4
3	KCS503	Design and Analysis of Algorithm	3	1	0	30	20	50		100		150	4
4	Deptt- Elective-I	Departmental Elective-I	3	0	0	30	20	50		100		150	3
5	Deptt.- Elective-II	Departmental Elective-II	3	0	0	30	20	50		100		150	3
6	KCS551	Database Management System Lab	0	0	2				25		25	50	1
7	KIT551	Web Technology Lab	0	0	2				25		25	50	1
8	KCS553	Design and Analysis of Algorithm Lab	0	0	2				25		25	50	1
9	KCS554	Mini Project or Internship Assessment*	0	0	2				50			50	1
10	KNC501/ KNC502	Constitution of India, Law and Engineering / Indian Tradition, Culture and Society	2	0	0	15	10	25		50			
11		MOOCs (Essential for Hons. Degree)											
		Total	17	3	8							950	22

*The Mini Project or internship (4 weeks) conducted during summer break after IV semester and will be assessed during V semester.

Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-25	Semester: 5 th
Course name: DBMS	Course Code: KCS-501	Faculty Name: Ms. Shrankhla Saxena

Tagging COs with BLs & KCs			
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	Apply knowledge of database for real life applications	Apply	Procedural
CO2	Apply query processing techniques to automate the real time problems of databases.	Apply	Procedural
CO3	Identify and solve the redundancy problem in database tables using normalization.	Analyze	Procedural
CO4	Understand the concepts of transactions and their processing.	Apply	Procedural
CO5	Design, develop and implement a small database project using database tools.	Create	Meta Cognitive

Mapping of Course outcomes with Program outcomes CO-POs Matrix

DBMS (KCS-501)

Course Code	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	3	3	-	-	2	-	-	2	2	-	3	2	3	-
CO2	3	3	2	2	3	-	-	1	2	2	3	2	3	1
CO3	3	3	3	3	2	1	-	1	2	1	2	2	-	-
CO4	3	2	3	3	2	2	2	1	2	2	2	2	1	-
CO5	3	2	2	2	3	2	2	1	2	1	3	2	3	2
PO Target	3	2.6	2.5	2.5	2.4	1.6	2	1.2	2	1.5	2.6	2	2.50	1.5

Signature of Course Coordinator

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

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Pharmacy Rank - 88
Innovation Rank Band (51-100)



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Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-25	Semester: 5th
Course name: Web Technology	Course Code: KIT 501	Faculty Name: Mr. Madhukar

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
CO1	After completion of the course, the student will be able to		
CO1	Understand the concepts of the web, internet and OOPs concepts using Core Java.	Understand	Conceptual/Procedural
CO2	Apply the concept of markup languages like HTML, DHTML, CSS and XML in the working of web and web applications.	Apply	Conceptual/Procedural
CO3	Apply JavaScript and AJAX to process web page content and java net API to create network-based programs using Java.	Apply	Conceptual/Procedural
CO4	Apply JDBC concepts to create database, perform database operations using Java Programs and the business logic using Java Beans.	Apply	Conceptual/Procedural
CO5	Apply JSP and Servlets concepts in server-side programming to process web data.	Apply	Conceptual/Procedural

Course Code	Course Name (Course Code)													
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	-	2	-	1	2	-	-	2	2	2	2	3	-	-
CO2	1	2	1	1	2	-	-	2	2	2	2	3	1	-
CO3	-	2	1	-	2	-	-	2	2	2	-	3	2	-
CO4	1	2	1	1	2	-	-	2	2	2	2	3	2	-
CO5	1	2	1	1	2	-	-	2	2	2	2	3	2	-
PO Target	1	2	1	1	2	-	-	2	2	2	2	3	1.75	-

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Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-25	Semester: V
Course Name: Design and Analysis of Algorithm	Course Code: KCS-503	Faculty Name: Vinay Kumar

Tagging COs with BLs & KCs			
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 complexity of algorithms and sorting techniques.	Analyze	Conceptual, Procedural
CO2	Analyze advance data structure such as RB Tree to calculate their operational complexity.	Analyze	Conceptual, Procedural
CO3	Apply the various algorithmic paradigms, including divide & conquer and greedy algorithms to solve the problems.	Apply	Conceptual, Procedural
CO4	Analyze the solutions for optimization problems using dynamic programming and branch & bound techniques.	Analyze	Conceptual, Procedural
CO5	Understand the concepts of NP-completeness, Randomized and Approximation Algorithms.	Understand	Conceptual, Procedural

Mapping of Course outcomes with Program outcomes CO-POs Matrix														
Course Code	Design and Analysis of Algorithm (KCS-503)													
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	3	3	3	1	1	-	-	-	-	-	1	1	2	1
CO2	2	3	3	2	1	-	-	-	-	-	1	1	2	1
CO3	2	3	2	2	1	-	-	-	-	-	2	2	2	1
CO4	3	2	3	3	2	-	-	-	-	-	2	2	1	1
CO5	1	2	2	1	1	-	-	-	-	-	1	1	-	-
PO Target	2.2	2.6	2.6	1.8	1.2	-	-	-	-	-	1.4	1.4	1.75	1

[Signature]

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Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-25	Semester: V
Course Name: Object Oriented System Design	Course Code: KCS 054	Faculty Name: Ms. Shivangi Tyagi

Tagging COs with BLs & KCs			
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 various constructs of object oriented programming to implement applications.	Procedural	Understand
CO2	Analyze the role of overall modeling concepts (i.e. System, structural).	Conceptual	Analyze
CO3	Analyze oops concepts (i.e. abstraction, inheritance).	Procedural	Analyze
CO4	Implement the basic concepts of C++.	Conceptual	Apply
CO5	Apply object-oriented approach to implement real world problem.	Meta-cognitive	Create

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Course Code	Object Oriented System Design (KCS 054)										PO Target	2.00	3.00	2.50	3.00	2.00	2.00	2.50	2.20	1.75	2.00	2.00	2.25			
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10														PO-11	PO-12	PSO-1
CO1	2	-	3	2	2	-	-	-	1	2	2	1	1	1	3											
CO2	-	3	3	2	2	-	-	-	-	-	-	2	2	3	2											
CO3	-	3	2	2	-	-	-	-	-	-	2	1	1	1	-											
CO4	-	-	3	-	3	-	-	-	-	-	2	2	2	2	1											
CO5	2	3	3	2	3	2	2	3	2	3	3	3	3	3	3											
PO Target	2.00	3.00	2.80	2.00	2.50	3.00	2.00	2.00	2.00	2.50	2.20	1.75	2.00	2.00	2.25											

Shivangi Tyagi

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Shivangi Tyagi

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Shivangi Tyagi

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Department for Computer Science and Information Technology

Program Name: B. Tech	Academic Session: 2024-25	Semester: V
Course Name: Machine Learning Techniques	Course Code: KCS-055	Faculty Name: Dr. Sudhir Kumar Sharma

Tagging COs with BLs & KCs

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	To understand the need for machine learning for various problem solving.	Understand	Conceptual
CO2	To understand a wide variety of learning algorithms and how to evaluate models generated from data.	Evaluate	Procedural
CO3	To understand the latest trends in machine learning.	Understand	Conceptual
CO4	To design appropriate machine learning algorithms and apply the algorithms to a real-world problem.	Apply	Procedural
CO5	To optimize the models learned and report on the expected accuracy that can be achieved by applying the models.	Analyze	Procedural

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Course Code	Machine Learning Techniques (KCS-055)													
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	2	1	1	-	-	1	1	-	-	-	-	2	-	-
CO2	2	2	2	1	1	-	-	-	-	-	-	2	-	-
CO3	2	2	2	1	1	1	1	-	-	-	-	2	-	-
CO4	2	2	3	3	2	1	1	-	-	-	-	1	1	-
CO5	2	2	2	1	3	-	-	-	-	-	-	1	1	-
PO Target	2.0	1.8	2.0	1.5	1.75	1.0	1.0	-	-	-	-	1.6	1.0	-

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Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-25	Semester: 5 th
Course name: DBMS Lab	Course Code: KCS-551	Faculty Name: Ms. Shrankhla Saxena

Tagging COs with BLs & KCs

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	Design an information model expressed in the form of ER diagram.	Apply	Procedural
CO2	Apply SQL queries to implement and manipulate the database and provide different constraints.	Apply	Procedural
CO3	Apply structured query language to automate the real time problems of databases.	Apply	Meta Cognitive

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Course Code	DBMS Lab (KCS-551)													
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	2	1	3	2	3	-	-	-	-	-	1	-	-	-
CO2	2	1	3	2	3	-	-	-	-	-	1	-	2	-
CO3	3	2	2	-	3	-	-	-	-	-	1	-	2	-
PO Target	2.33	1.33	2.67	2.00	3.00	-	-	-	-	-	1.00	-	2	-

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Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-25	Semester: 5 th
Course name: Web Technology Lab	Course Code: KIT 551	Faculty Name: Mr. Madhukar

Tagging COs with BLs & KCs			
CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
CO1	After completion of the course, the student will be able to Develop static web pages using HTML, Dynamic Web Pages using JavaScript and XML, and JSP (Server Side Programming).	Apply	Conceptual, Procedural
CO2	Develop Java programs for Windows/web-based applications.	Apply	Conceptual, Procedural
CO3	Construct Server-Side applications using JDBC, ODBC and session tracking API	Apply	Conceptual, Procedural

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Course Code	Course Name (Course Code)													
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	1	2	1	1	2	-	-	2	2	2	2	3	1	-
CO2	-	2	-	1	2	-	-	2	2	2	2	3	-	-
CO3	1	2	1	1	2	-	-	2	2	2	2	3	2	-
PO Target	2	2	1	1	2	-	-	2	2	2	2	3	1.5	-

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Computer Science and Information Technology

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Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-25	Semester: V
Course Name: Design and Analysis of Algorithm Lab	Course Code: KCS-553	Faculty Name: Vinay Kumar

Tagging COs with BLs & KCs

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 techniques for designing algorithms, including the techniques of recursion and iterative approach.	Apply	Conceptual, Procedural
CO2	Apply algorithms to solve problems using various algorithm design strategies.	Apply	Conceptual, Procedural
CO3	Analyze the performance of algorithms with respect to time and space complexity.	Analyze	Conceptual, Procedural

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Design and Analysis of Algorithm Lab (KCS-553)														
Course Code	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	1	2	2	1	1	-	-	-	-	-	1	2	1	1
CO2	1	3	2	1	2	-	-	-	-	-	1	2	1	1
CO3	2	3	3	2	3	-	-	-	-	-	2	2	2	1
PO Target	1.33	2.66	2.33	1.33	2.00	-	-	-	-	-	1.33	2.00	1.33	1.00

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KIET, Ghaziabad

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Department for Computer Science and Information Technology

Program Name: B. Tech	Academic Session: 2024-25	Semester: V
Course Name: Constitution of India, Law and Engineering	Course Code: KNC 501	Faculty Name: Ms. Shivangi Tyagi

Tagging COs with BLs & KCs

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 and explore the basic features and modalities about the Indian constitution.	Understand	Factual, Conceptual
CO2	Differentiate and relate the functioning of Indian parliamentary system at the center and state level.	Analyze	Factual, Conceptual
CO3	Differentiate different aspects of the Indian Legal System and its related bodies.	Understand	Factual, Conceptual
CO4	Discover and apply different laws and regulations related to engineering practices.	Understand	Factual, Conceptual
CO5	Correlate role of engineers with different organizations and governance models.	Understand	Factual, Conceptual

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Course Code	Constitution of India, Law and Engineering (KNC 501)													
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	-	-	-	-	-	3	2	-	-	-	-	-	-	-
CO2	-	-	-	-	-	3	2	-	-	-	-	-	-	-
CO3	-	-	-	-	-	3	2	1	-	-	-	-	-	-
CO4	-	-	-	-	-	3	2	2	-	2	-	-	-	-
CO5	-	-	-	-	-	2	2	2	2	2	2	2	-	-
PO Target	-	-	-	-	-	2.80	2.00	1.67	2.00	2.00	2.00	2.00	-	-

Shivangi
 Signature of Course Coordinator

[Signature]
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[Signature]
 Signature of HoD
 Dean

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Department for Computer Science and Information Technology

Program Name: Ashima Arya	Academic Session: 2024-25	Semester: V
Course name: Mini project	Course Code: KCS 554	Faculty Name: Ms. Ashima Arya

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	Correlate the technical knowledge acquired in the labs to solve real-world problems.	Analyze	C
CO2	Engage in the creative design process by integrating and applying diverse technical knowledge.	Create	P
CO3	Use the various tools & techniques coding practices for developing solutions to the problem.	Evaluate	C, P

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Course Name: Project1 (KIT 753)

Course Code	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	1	3	1	1	-	3	2	3	3	-	3	3	-	1
CO2	1	-	3	3	2	1	-	3	3	1	3	3	-	2
CO3	1	-	-	1	-	-	-	3	3	3	3	2	-	1
PO Target	1	3	2	2	1	2	1	3	3	2	3	2.6	-	2

(Signature)

Signature of Course Coordinator

(Signature)

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(Signature)

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INFORMATION TECHNOLOGY /CSIT

B.TECH IV YEAR

(INFORMATION TECHNOLOGY /CSIT) CURRICULUM STRUCTURE

SEMESTER- VII													
Sl. No.	Subject	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
	Codes		L	T	P	CT	TA	Total	PS	TE	PE		
1	KHU701/KHU702	HSMC -1 / HSMC-2	3	0	0	30	20	50		100		150	3
2	KCS07X	Departmental Elective-IV	3	0	0	30	20	50		100		150	3
3	KCS07X	Departmental Elective-V	3	0	0	30	20	50		100		150	3
4	KOE07X	Open Elective-II	3	0	0	30	20	50		100		150	3
5	KIT751A	The Department may conduct one Lab of either of the two Electives (4 or 5) based on the elective chosen for the curriculum. The Department shall on its own prepare complete list of practical for the Lab and arrange for proper setup and conduct accordingly.	0	0	2					25	25	50	1
6	KIT752	Mini Project or Internship Assessment*	0	0	2					50		50	1
7	KIT753	Project I	0	0	8					150		150	4
8		MOOCs (Essential for Hons. Degree)											
		Total	12	0	12							850	18

*The Mini Project or internship (4 - 6 weeks) conducted during summer break after VI semester and will be assessed during VII semester.

SEMESTER- VIII													
Sl. No.	Subject	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
	Codes		L	T	P	CT	TA	Total	PS	TE	PE		
1	KHU801/KHU802	HSMC-2 [#] /HSMC-1 [#]	3	0	0	30	20	50		100		150	3
2	KOE08X	Open Elective-III	3	0	0	30	20	50		100		150	3
3	KOE08X	Open Elective-IV	3	0	0	30	20	50		100		150	3
4	KIT851	Project	0	0	18					100	300	400	9
5		MOOCs (Essential for Hons. Degree)											
		Total	9	0	18							850	18

Department for Computer Science and Information Technology

Program Name: B.Tech.	Academic Session: 2024-25	Semester: VII
Course name: Rural Development: Administration and Planning	Course Code: KHU 701	Faculty Name: Ashish Kumar Singh

Tagging COs with BLs & KCs

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 concept of rural development and its different policies and programmes.	Understand	Factual
CO2	Understand different experiments and approaches to rural community development.	Understand	Conceptual
CO3	Understand the structure of rural administration and the dimensions of panchayati raj.	Understand	Conceptual
CO4	Understand the need and dimensions of human resource development in rural sector.	Understand	Conceptual
CO5	Understand the different aspects of Rural Industrialization and Entrepreneurship.	Understand	Conceptual

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Course Code	Rural Development: Administration and Planning (KHU701)													
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	1	-	-	-	-	2	2	-	-	1	-	2	1	-
CO2	1	-	-	-	-	3	2	-	-	1	-	2	1	-
CO3	1	-	-	-	-	2	2	-	-	1	-	2	1	-
CO4	1	-	-	-	-	2	2	-	-	1	-	2	1	-
CO5	1	-	-	-	-	2	2	-	-	1	-	2	1	-
PO Target	1.0	-	-	-	-	2.2	2.0	-	-	1.0	-	2.0	1.0	-

Ashish K. Singh
 Signature of Course Coordinator

[Signature]
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- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-25	Semester: VII
Course Name: Artificial Intelligence	Course Code: KCS071	Faculty Name: Mr. Ankit Kumar Saini

Tagging COs with BLs & KCs			
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 concepts of artificial intelligence and intelligent agents.	Understand	Conceptual
CO2	Apply basic principles of AI in solutions that require problem-solving methods.	Apply	Conceptual, Procedural
CO3	Determine the effectiveness of truths by knowledge representation methods in AI.	Analyze	Conceptual, Procedural
CO4	Analyze intelligent agents by exploring the architecture and communication of agents.	Apply	Conceptual, Procedural
CO5	Analyze various AI applications in Information retrieval and extraction, Natural Language Processing, speech recognition and Robots.	Analyze	Conceptual, Procedural

Mapping of Course outcomes with Program outcomes CO-POs Matrix														
Artificial Intelligence (KCS 071)														
Course Code	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	3	-	-	-	-	2	2	-	-	-	-	3	2	2
CO2	3	3	2	2	3	-	-	-	-	-	-	3	3	2
CO3	3	3	2	3	3	-	-	-	-	-	-	2	2	2
CO4	3	3	3	3	3	-	-	2	-	-	2	2	2	3
CO5	3	3	2	3	3	3	2	2	-	-	-	2	2	2
PO Target	3.0	3.0	2.0	3.0	3.0	2.5	2.0	2.0	-	-	2.0	2.5	2.0	2.0

Signature of Course Coordinator


Signature of Addl. HoD


Signature of HoD


Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
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Computer Science and Information Technology

Department for Computer Science and Information Technology

Program Name: B.Tech.	Academic Session: 2024-25	Semester: VII
Course Name: Software Testing	Course Code: KCS076	Faculty Name: Dr. Jaswinder Singh

Tagging COs with BLs & KCs

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	Have an ability to apply software testing knowledge and engineering methods.	Apply	Procedural
CO2	Have an ability to design and conduct a software test process for a software testing project.	Analyze	Procedural
CO3	Have an ability to identify the needs of software test automation, and define and develop a test tool to support test automation.	Understand	Factual, Conceptual
CO4	Have an ability understand and identify various software testing problems, and solve these problems by designing and selecting software test models, criteria, strategies, and methods.	Understand	Factual, Conceptual
CO5	Have basic understanding and knowledge of contemporary issues in software testing, such as component-based software testing problems.	Understand	Conceptual

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Course Code	Software Testing (KCS 076)												PO Target		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12		PSO-1	PSO-2
CO1	3	2	2	-	-	-	-	-	-	-	-	-	-	3	-
CO2	3	3	3	2	-	-	-	-	-	-	-	-	-	3	2
CO3	2	3	2	3	3	-	-	-	-	-	-	-	-	3	3
CO4	3	3	3	-	-	-	-	-	-	-	-	-	-	3	2
CO5	2	2	-	-	-	-	-	-	3	-	-	-	-	2	-
PO Target	2.6	2.6	2.5	2.5	3.0	-	-	-	3.0	-	-	-	-	2.8	2.3

Jaswinder Singh
 Signature of Course Coordinator

Jaswinder Singh
 Signature of Addl. HoD

Jaswinder Singh
 Signature of HoD

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Department for Computer Science and Information Technology

Program Name: B.Tech.	Academic Session: 2024-25	Semester: VII
Course Name: Cloud Computing	Course Code: KCS713	Faculty Name: Mr. Prince Gupta

Tagging COs with BLs & KCs

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	Articulate the main concepts, key technologies, strengths and limitations of cloud computing.	Understand	Factual, Conceptual
CO2	Understand the key and enabling technologies like virtualization in Cloud Computing	Understand	Factual, Conceptual
CO3	Interpret the architecture of cloud computing, cloud storage, service and delivery models.	Understand	Factual, Conceptual
CO4	Understand the core issues of cloud computing such as resource management and security.	Understand	Factual, Conceptual
CO5	Classify cloud technologies for the next generation computing paradigm.	Analyze	Conceptual, Procedural

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Course Code	Cloud Computing (KCS 713)													
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	2	2	-	2	2	-	-	-	-	-	-	2	2	-
CO2	2	2	-	2	2	-	-	-	-	-	-	2	2	-
CO3	2	3	-	2	2	-	-	-	-	-	-	2	2	-
CO4	2	3	-	2	3	-	-	-	-	-	2	2	2	-
CO5	2	3	-	3	3	-	-	-	-	-	2	3	3	-
PO Target	2.0	2.6	-	2.2	2.4	-	-	-	-	-	2.0	2.2	2.2	-

Signature of Course Coordinator

Signature of Course Coordinator

Signature of HoD
 Dean

Signature of HoD
 Dean

Computer Science and Information Technology
 K.I.E.T. Ghaziabad

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Department for Computer Science and Information Technology

Program Name: B.Tech.	Academic Session: 2024-25	Semester: VII
Course name: Renewable Energy Resources	Course Code: KOE074	Faculty Name: Masood Rizvi

Tagging COs with BLs & KCs

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 various non-conventional energy resources and their availability along with knowledge on solar cells.	Understand	Factual
CO2	Apply the concept of solar radiation on a flat plate and focusing type collectors to convert solar energy into electrical energy.	Apply	Conceptual
CO3	Understand the concept of electrical energy generation from geothermal energy, magnetohydrodynamics, and fuel cells.	Understand	Conceptual
CO4	Understand the concept of electrical energy generation from thermo-electrical, thermionic, and wind energy conversions.	Understand	Conceptual
CO5	Understand biomass, ocean thermal, wave, and tidal wave energy conversions.	Understand	Conceptual

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Course Code	Renewable Energy Resources (KOE074)													
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	1	-	-	1	-	2	3	-	-	1	-	1	1	-
CO2	3	-	-	2	-	3	3	-	-	1	-	2	3	-
CO3	1	-	-	2	-	2	3	-	-	1	-	2	1	-
CO4	1	-	-	2	-	2	3	-	-	1	-	2	1	-
CO5	1	-	-	2	-	2	3	-	-	1	-	2	1	-
PO Target	1.4	-	-	1.8	-	2.2	3.0	-	-	1.0	-	1.8	1.4	-

Signature of Course Coordinator



Signature of Addl. HoD



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Computer Science and Information Technology

KIET Ghaziabad

Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-25	Semester: VII
Course Name: VISION FOR HUMANE SOCIETY	Course Code: KOE076	Faculty Name: Swasti Singhal

Tagging COs with BLs & KCs

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			
CO 1	Understand human aspirations, their fulfillment, and the need for a universal human order.	Understand	Conceptual
CO 2	Analyze the types of human-human relationships and their fulfillment.	Analyze	Conceptual
CO 3	Apply the principles of justice from the family level to the world family order.	Apply	Procedural
CO 4	Understand the conceptual framework of an undivided society and universal human order.	Understand	Conceptual
CO 5	Analyze the process of transitioning from the current state to an undivided society and universal human order.	Analyze	Procedural

Mapping of Course outcomes with Program outcomes CO-POs Matrix

VISION FOR HUMANE SOCIETY (KOE076)														
Course Code	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO 1	-	2	-	-	-	3	2	3	-	-	-	2	-	-
CO 2	-	1	-	-	-	3	3	2	2	-	-	2	-	-
CO 3	-	1	-	-	-	3	3	3	-	-	-	2	-	-
CO 4	-	1	-	-	-	3	2	3	3	-	-	2	-	-
CO 5	-	1	-	-	-	3	3	2	2	-	-	2	-	-
PO Target	-	1.2	-	-	-	3.0	2.6	2.6	2.0	-	-	2.0	-	-

Signature of Course Coordinator

Signature of Addl. HoD

Signature of HOD

Dean

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Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-25	Semester: VII
Course Name: Artificial Intelligence Lab	Course Code: KIT751	Faculty Name: Mr. Ankit Kumar Saini

Tagging COs with BLs & KCs			
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 problems where artificial intelligence techniques are applicable.	Apply	Conceptual
CO2	Apply selected basic AI techniques; judge applicability of more advanced techniques.	Apply	Conceptual & Procedural
CO3	Participate in the design of systems that act intelligently and learn from experience	Evaluate	Conceptual & Procedural

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Course Code	Artificial Intelligence Lab (KIT751)													
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	3	-	3	2	2	2	2	-	2	-	-	2	2	2
CO2	3	2	2	3	2	3	-	-	-	-	-	3	2	2
CO3	3	3	2	-	2	3	-	-	-	-	-	3	2	2
PO Target	3.0	2.5	2.3	2.5	2.0	2.6	2.5	-	2.0	-	-	2.6	2.0	2.0

Ankit Kumar

Signature of Course Coordinator

Signature of Addl. HoD

Dean

Signature of HoD

Computer Science and Information Technology
KIET, Ghaziabad

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

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- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are

Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-25	Semester: VII
Course Name: Software Testing Lab	Course Code: KIT751A	Faculty Name: Dr. Jaswinder Singh

Tagging COs with BLs & KCs

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			
CO 1	Understanding Selenium tool to perform testing.	Understand	Conceptual
CO 2	Writing test suites for applications.	Apply	Procedural
CO 3	Construct and test simple programs.	Create	Procedural
CO 4	Understanding the use of bug tracking and testing tools (Bugzilla, Jira).	Apply	Conceptual Procedural

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Course Code	Software Testing Lab (KIT751A)													
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO 1	3	2	2	-	2	-	-	-	-	-	-	-	2	2
CO 2	-	3	2	-	2	-	-	-	-	-	-	-	3	2
CO 3	2	2	-	2	-	2	-	-	-	-	-	-	3	2
CO 4	3	3	2	-	-	-	2	-	-	-	-	-	2	2
PO Target	2.6	2.5	2.0	2.0	2.0	2.0	2.0	-	-	-	-	-	2.5	2.0

Jaswinder Singh
 Signature of Course Coordinator

[Signature]
 Signature of Addl. HoD

[Signature]
 Signature of HoD

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Department for Computer Science and Information Technology

Program Name: B.Tech	Academic Session: 2024-25	Semester: VII
Course name: Mini Project	Course Code: KIT752	Faculty Name: Arti Pandey

Tagging COs with BLs & KCs

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 new technical skills for solving real world problems.	Analyze	Conceptual, Procedural
CO2	Use various tools for developing solution to the problem.	Create	Procedural
CO3	Illustrate problem-solving, critical thinking skills and report writing.	Analyze	Conceptual

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Course Code	Mini Project (KIT752)												PO Target		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12		PSO-1	PSO-2
CO1	3	2	2	2	1	-	-	1	2	1	1	1	-	-	1
CO2	1	-	3	3	2	1	-	3	3	1	3	3	-	-	2
CO3	1	-	-	1	-	-	-	3	3	3	3	2	-	-	1
PO Target	1.66	2.00	2.50	2.00	1.50	1.00	-	2.33	2.66	1.66	2.33	2.00	-	-	1.33

Signature of Course Coordinator

Signature of Addl. HoD

Signature of HoD
 Dean

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Department for Computer Science and Information Technology

Program Name: B.Tech.	Academic Session: 2024-25	Semester: VII
Course name: Project 1	Course Code: KIT753	Faculty Name: Ms. Ashima Arya

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	Summarize the problem statement based on a review of the existing literature.	Understand	Conceptual
CO2	Conclude the outcomes of the project.	Analyze	Conceptual, Procedural
CO3	Write a quality research paper.	Understand	Procedural
CO4	Communicate the findings with the research community.	Evaluate	Conceptual, Procedural
CO5	Create a comprehensive project report.	Create	Conceptual, Procedural

Mapping of Course outcomes with Program outcomes CO-POs Matrix

Course Code	Project 1 (KIT753)													
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO1	3	2	1	1	1	1	1	2	3	3	1	3	1	1
CO2	1	2	3	3	3	1	1	1	3	2	1	3	1	1
CO3	1	3	3	2	1			1	3	2	1	3	1	1
CO4	1	1	1	2	1			1	3	2	1	3	1	1
CO5	1	2	1	2	1			1	3	2	1	3	1	1
PO Target	1.4	2.0	1.8	2	1.4	1.0	1.0	1.2	3.0	2.2	1.0	3.0	1.0	1.0

[Signature]

Signature of Course Coordinator

[Signature]

Signature of Addl. HoD

[Signature]
 Signature of HoD

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