

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				
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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.Tech
Course Name: Sensor and Instrumentation
Course Outcomes

Academic Session: 2023-24

Course Code: BOE 305

Year: 2nd

Course Coordinator Name: Ms. Deepthi Singh

Semester: 3rd

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSO APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Apply the use of sensor for measurement of displacement, force and pressure.	PO1, PO2, PO3, PO4, PO11, PSO1, PSO2	K3	Conceptual Procedural
CO2	Employ commonly used sensors in industry for measurement of temperature, position, accelerometer, vibration sensor, flow and level.	PO1, PO2, PO3, PO4, PO5, PO11, PSO1, PSO2	K3	Conceptual Procedural
CO3	Demonstrate the use of virtual instrumentation in automation industries.	PO1, PO2, PO3, PO4, PO5, PO6, PO11, PSO1, PSO2	K3, K4	Conceptual Procedural
CO4	Identify and use data acquisition methods.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO11, PSO1, PSO2	K3	Conceptual Procedural
CO5	Study intelligent instrumentation in industrial automation.	PO1, PO2, PO3, PO4, PO5, PO6, PO11, PSO1, PSO2	K3	Conceptual Procedural

Faculty Members Teaching the Course		Faculty Members Teaching the Course	
Signature			Signature
1. Ms. Deepthi Singh		5	
2.		6.	
3.		7.	
4.		8.	

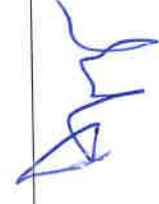


Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.Tech

Course Name: Sensor and Instrumentation

Academic Session: 2023-24

Course Code: BOE 305

Year: 2nd

Semester: 3rd

Course Coordinator Name: Ms. Deepthi Singh

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO-1	3	2	2	2	-	-	-	-	-	-	2	-	3	2
CO-2	3	3	2	3	2	-	-	-	-	-	3	-	2	2
CO-3	3	2	2	3	3	3	-	-	-	-	2	-	2	2
CO-4	2	3	2	2	2	3	2	-	-	-	3	-	2	2
CO-5	2	2	2	2	2	2	-	-	-	-	2	-	2	2
Target Level	2.60	2.40	2	2.40	2.25	2.67	2	-	-	-	2.40	-	2.20	2

Faculty Members Teaching the Course		Signature	Faculty Members Teaching the Course		Signature
1.	Ms. Deepthi Singh		5.		
2.			6.		
3.			7.		
4.			8.		

 Signature of Course Coordinator

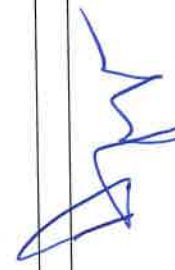
Assoc./ Asst. Head DOC



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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B.Tech
Course Name: UHV

Academic Session: 2023-24

Semester: 3rd

Year: 2nd

Course Code: BVE 301

Course Coordinator Name: Ms. Arti Pandey

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Understand the process of self-exploration and meaning of natural acceptance.	PO7, PO8, PO9, PO12	Understand	C
CO2	Understand the meaning of Harmony in the Co-existence of Self and Body.	PO7, PO8, PO9, PO12	Understand	C
CO3	Understand the value of harmonious relationship based on trust, respect and other naturally acceptable feelings in human-human relationships.	PO6, PO7, PO8, PO9, PO11, PO12	Understand	C
CO4	Analyze the harmony in nature and existence by fulfilling participation in the nature.	PO6, PO7, PO8, PO9, PO12	Analyze	C
CO5	Apply the role of holistic understanding of harmony in professional ethics.	PO6, PO7, PO8, PO9, PO11, PO12	Apply	C,P

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Ms Arti Pandey		5.	
2. Ms. Ashima Arya		6.	
3. Mr. Vinay Kumar		7.	
4.		8.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.

❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B.Tech

Academic Session: 2023-24

Semester: 3rd

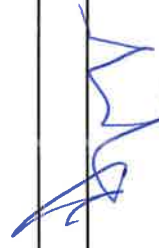
Course Name: UHV

Course Code: BVE 301

Course Coordinator Name: Ms. Arti Pandey

Course Outcomes

CO No.	Programme Outcome (PO)											PSO/ APO		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
C01							1	1	1			2		
C02							2	3	2			2		
C03						1	2	3	2		1	2		
C04						1	2	3	2			2		
C05						1	2	3	2		1	3		
PO Target						1	1.8	2.6	1.8		1	2.2		

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Ms Arti Pandey		5.	
2. Ms. Ashima Arya		6.	
3. Mr. Vinay Kumar		7.	
4.		8.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.Tech

Academic Session: 2023-24

Semester: 3rd

Course Name: Data Structure

Course Code: BCS 301

Course Coordinator Name: Mr. Jaswinder Singh

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Understand Data structure concepts and implement the operations of Array and Linked list.	PO1, PO2, PO3, PO10, PO12	K2, K3	Conceptual Procedural
CO2	Apply the concept of Stack and queue in real life problems.	PO1, PO2, PO3, PO10, PO12, PSO1	K3	Conceptual Procedural
CO3	Implement sorting, searching algorithms and analyze their complexity.	PO1, PO2, PO3, PO10, PO12, PSO1	K3, K4	Conceptual Procedural
CO4	Implement the concepts of trees.	PO1, PO2, PO3	K3	Conceptual Procedural
CO5	Use the concepts of graph for solving real world problem.	PO1, PO2, PO3, PO10, PO12, PSO1	K3	Conceptual Procedural

Faculty Members Teaching the Course		Faculty Members Teaching the Course	Signature
1.	Mr. Jaswinder Singh		
2.	Dr. Ankur Garg	5.	
3.	Dr Meeta Chaudhry	6.	
4.		7.	
		8.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.

❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B.Tech

Academic Session: 2023-24

Year: 2nd

Semester: 3rd

Course Name: Data Structure

Course Code: BCS 301

Course Coordinator Name: Mr. Jaswinder Singh

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	2	1							1		1		
CO2	1	2	2							1		3	2	
CO3	1	2	2							2		1		
CO4	1	2	2										2	
CO5	1	2	3							1		3	2	
PO Target	1.40	2.00	2.00							1.25		2.00	2.00	

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Mr. Jaswinder Singh		5.	
2. Dr. Ankur Garg		6.	
3. Dr Meeta Chaudhry		7.	
4.		8.	



Signature of Course Coordinator

Assoc./ Asst. Head DOC



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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.Tech.

Academic Session: 23-24

Semester: 3rd

Course Name: COA

Course Code: BCS-302

Course Coordinator Name: Mrs. Supriya Dubey

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Summarize the fundamental components of basic computer system and its organization	PO1, PO2, PO3, PO4, PO5, PO12	Understand (BL-2)	Factual, Conceptual
CO2	Apply arithmetic and logical microoperations of binary number system	PO1, PO2, PO3, PO4, PO5, PO12	Apply (BL-3)	Conceptual, Procedural
CO3	Analyze control unit design and concept of pipelining	PO1, PO2, PO3, PO4, PO5, PO7, PO12	Analyze (BL-4)	Conceptual, Procedural
CO4	Classify memory hierarchy and examine numerical problem based on it	PO1, PO2, PO3, PO4, PO5, PO10, PO12	Analyze (BL-4)	Factual, Conceptual, Procedural
CO5	Justify the concept of input output organization.	PO1, PO2, PO3, PO4, PO5, PO12	Evaluate (BL-5)	Factual, Conceptual, Procedural

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Mrs. Supriya Dubey		5.	
2.Dr. Deepak Singh		6.	
3.Dr. Bhoopendra Kumar		7.	
4.		8.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.Tech

Course Name: COA

Academic Session: 2023-24

Course Code: BCS-302

Year: 2nd

Semester: 3rd

Course Coordinator Name: Mrs. Supriya Dubey

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	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

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Mrs. Supriya Dubey		5.	
2.Dr. Deepak Singh		6.	
3.Dr. Bhoopendra Kumar		7.	
4.		8.	



Signature of Course Coordinator



Assoc./ Asst. Head DOC



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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B.Tech

Academic Session: 2023-24 Year: 2nd Semester: III

Course Name: Discrete Structures & Theory of Logic

Course Coordinator Name: Jaya Sharma

Course Code: BCS303

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CONo.	Statement of Course Outcome			
CO1	Acquire Knowledge of sets and relations for solving problems of POSET and lattices.	PO1,PO2,PO3,PO4,PO5,PO12, PSO1	K3	C,P
CO2	Apply fundamental concepts of functions and Boolean algebra for solving the problems of logical abilities.	PO1,PO2,PO3,PO5,PO12, PSO1	K3	C,P
CO3	Employ the rules of propositions and predicate logic to solve the complex and logical problems.	PO1,PO2,PO3,PO4,PO5PO12, PSO1	K3	C,P
CO4	Explore the concepts of group theory and their applications for solving the advance technological problems.	PO1,PO2,PO3,PO5,PO12,PSO1	K4	C,P
CO5	Illustrate the principles and concepts of graph theory for solving problems related to computer science.	PO1,PO2,PO3,PO5,PO12,PSO1	K4	C,P

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Dr. Rohit Vashishth		5.	
2.		6.	
3.		7.	
4.		8.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B.Tech

Semester: III

Course Name: Discrete Structures & Theory of Logic

Academic Session: 2023-24

Year: 2nd

Course Code: BCS-303

Course Coordinator Name: Jaya Sharma

CO-PO/PSO/APO Matrix

CO No.	Programme Outcome(PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	1	1	1	1	-	-	-	-	-	-	1	1	-
CO2	3	1	1	-	2	-	-	-	-	-	-	1	1	-
CO3	3	1	1	2	2	-	-	-	-	-	-	1	1	-
CO4	3	2	1	1	1	-	-	-	-	-	-	1	1	-
CO5	3	3	2	2	2	-	-	-	-	-	-	2	2	-
POTarget	3	1.6	1.2	1.5	1.6	-	-	-	-	-	-	1.2	1.2	-

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Dr. Rohit Vashisht		5.	
2.		6.	
3.		7.	
4.		8.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.Tech

Academic Session: 2023-24

Semester: III

Course Name: Data Structure Lab

Course Code: BCS 351

Course Coordinator Name: Mr. Jaswinder Singh

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Implement various Sorting and Searching Algorithms.	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO9, PO10, PO12, PSO1 and PSO2	K3	Conceptual Procedural
CO2	Implement various data structure using static and dynamic memory allocation.	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO9, PO10, PO12, PSO1 and PSO2	K4	Conceptual Procedural
CO3	Demonstrate various type of Trees and Graphs traversal techniques and operations.	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO9, PO10, PO12, PSO1 and PSO2	K3	Conceptual Procedural

Faculty Members Teaching the Course		Signature	Faculty Members Teaching the Course	Signature
1. Mr. Jaswinder Singh			5. Ms. Shrankhala	
2. Dr. Ankur Garg			6. Ms. Soniya	
3. Dr Meeta Chaudhry			7. Dr. K.P. Singh	
4. Ms. Jaya			8.	

Jaswinder Singh

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B.Tech

Academic Session: 2023-24

Year: 2nd

Semester: 3rd

Course Name: Data Structure Lab

Course Code: BCS 351

Course Coordinator Name: Mr. Jaswinder Singh

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	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

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Mr. Jaswinder Singh		5. Ms. Shrankhala	
2. Dr. Ankur Garg		6. Ms. Soniya	
3. Dr Meeta Chaudhry		7. Dr. K.P. Singh	
4. Ms. Jaya		8.	



Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.

- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.Tech

Course Name: COA Lab

Academic Session: 2023-24

Course Code: BCS-353

Year: 2nd

Course Coordinator Name: Mrs. Supriya Dubey

Semester: 3rd

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	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	2	1.33	1	1	1.33	1	1	1.67	1

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Mrs. Supriya Dubey		5.	
2.Dr. Deepak Singh		6.	
3.Dr. Bhoopendra Kumar		7.	
4.		8.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.Tech.

Academic Session: 2023-24

Semester: 3rd

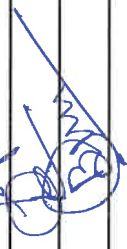
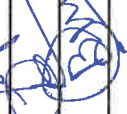
Course Name: COA Lab

Course Code: BCS-353

Course Coordinator Name: Mrs. Supriya Dubey

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSO's/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Design and simulate combinational circuits for encoders/decoders and selection devices multiplexers/de-multiplexers using logic gates	PO-1 to PO-12	BL-3	Procedural
CO2	Design and simulate combinational circuits for binary arithmetic (such as adders, subtractors, and multipliers) and code converters	PO-1,2,4,7,10,11,12	BL-3	Procedural
CO3	Design and simulate the basic building blocks of the sequential circuits (i.e., SR and D FF) using logic gates	PO-1 to 7 & PO-8 to 12	BL-3	Procedural

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Mrs. Supriya Dubey		5.	
2.Dr. Deepak Singh		6.	
3.Dr. Bhoopendra Kumar		7.	
4.		8.	



Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B.Tech **Academic Session:** 2023-24 **Semester:** 3rd
Course Name: Web Designing Workshop **Course Code:** BCS 353 **Course Coordinator Name:** Ms. Garima Singh

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Understand the concept of layout and structure of Hypertext markup language (HTML)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2	Understand	C,P
CO2	Apply Cascading style sheets (CSS) integration and Bootstrapping in HTML pages.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2	Apply	C,P
CO3	Apply the JavaScript concept to process and validate the data of a web page on the client Machine.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2	Apply	C,P
CO4	Design the website with the application of HTML, CSS, and JavaScript.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2	Create	C,P,M

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Ms Garima Singh		5.	
2. Dr Meeta Chaudhry		6.	
3.		7.	
4.		8.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B.Tech

Academic Session: 2023-24

Semester: 3rd

Course Name: Web Designing Workshop

Course Code: BCS 353

Course Coordinator Name: Ms. Garima Singh

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	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	2	2	2	2	1	1	1	1	1	2	3	2	3
CO4	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

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Ms Garima Singh		5.	
2. Dr Meeta Chaudhry		6.	
3.		7.	
4.		8.	



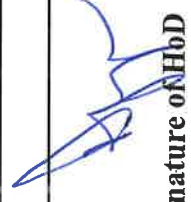
Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HbD

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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

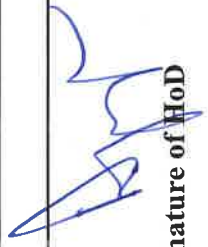
Program Name: B.Tech **Academic Session:** 2023-24 **Year:** 2nd **Semester:** 3rd
Course Name: Python Programming **Course Code:** BCC302 **Course Coordinator Name:** Rashika Bangroo
Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Interpret the fundamental Python syntax and semantics and be fluent in the use of Python control flow statements.	PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO10, PO11, PO12, PSO2	Understand, Analyze	K1, K2
CO2	Express proficiency in the handling of strings and functions	PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO10, PO11, PO12, PSO1, PSO2	Conceptual	K1, K2
CO3	Determine the methods to create and manipulate Python programs by utilizing the data structures like lists, dictionaries, tuples and sets.	PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO10, PO11, PO12, PSO1, PSO2	Conceptual	K3
CO4	Identify the commonly used operations involving file systems and regular expressions.	PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO10, PO11, PO12, PSO1, PSO2	Analyze, Apply	K1, K2
CO5	Articulate the Object-Oriented Programming concepts such as encapsulation, inheritance and polymorphism as used in Python	PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO10, PO11, PO12, PSO1, PSO2	Apply	K2, K3

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Rashika Bangroo		5.	
2. Deep Kumar		6.	
3. Supriya Dubey		7.	
4.		8.	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of HoD

Please Note (Reference: OBE Guidelines web. 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.Tech

Academic Session: 2023-24

Semester: 3rd

Course Name: Python Programming

Course Code: BCCC302

Course Coordinator Name: Rashika Bangroo

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	2	2	2	2	2			1	2	2	1		2
CO2	2	2	2	2	2	2			2	2	2	1	1	2
CO3	2	2	2	3	2	2			2	2	2	2	1	2
CO4	2	2	2	2	2	2			2	2	2	1	1	2
CO5	2	2	2	3	2	2			1	2	2	1	1	2
PO Target	2	2	2	2.40	2	2			1.60	2	2	1.20	1	2

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Rashika Bangroo		5.	
2. Deep Kumar		6.	
3. Supriya Dubey		7.	
4.		8.	



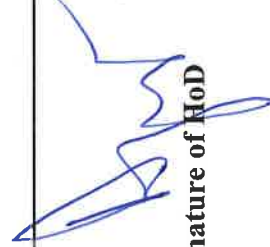
Signature of Course Coordinator



Assoc./ Asst. Head DOC



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.
- 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.Tech

Academic Session: 2023-2024

Year: 2nd

Semester: 3rd

Course Name: Mini Project

Course Code: BCC351

Course Coordinator Name: Ms. Ashima Arya

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSO's/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Correlate the technical knowledge acquired in the internships for solving real world problems	PO1,PO2,PO6,PO7,PO8, PO9,PO11,PO12	Analyze	C
CO2	Use various tools for developing solution to the problem.	PO1, PO3, PO4, PO5, PO6,PO8,PO9,PO11,PO 12	Create	P
CO3	Validate technical information by means of written and oral reports.	PO1, PO8, PO9,PO10,PO11,PO12	Evaluate	C
CO4				
CO5				

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Ms. Ashima Arya		5.Mr. K.P.Singh	
2.Ms. Sonia Deshmukh		6.	
3.Ms. Silki Kharaliya		7.	
4.Ms. Shrankha Saxena		8.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.tech

Academic Session: 2023-24

Semester: 3rd

Course Name: Mini Project

Course Code: BCC351

Course Coordinator Name: Ms. Ashima Arya

CO - PO/PSO/APO Matrix

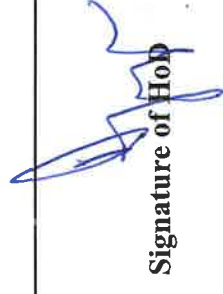
CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	1	3	1	1	-	3	2	3	3	-	3	3	-	1
CO2	1	-	3	3	2	1	-	3	3	1	3	3	-	2
CO3	1	-	-	1	-	-	-	3	3	3	3	2	-	1
PO Target	1	3	2	1.67	2	2	2	3	3	2	3	2.67	-	1.33

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Ms. Ashima Arya		5. Mr. K.P. Singh	
2.Ms. Sonia Deshmukh		6.	
3.Ms. Silki Kharaliya		7.	
4.Ms. Ms. Shrankhla Saxena		8.	

 **Signature of Course Coordinator**

 **Assoc./ Asst. Head DOC**

 **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.
- ❖ 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.													

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B.Tech

Academic Session: 2023-24 **Year:** 3rd **Semester:** 5th

Course Name: DBMS

Course Code: KCS-501

Course Coordinator Name: Ms. Shrankhla Saxena

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Apply knowledge of database for real life applications	PO1,PO2,PO5,PO8,PO9,PO11,PO12,PSO2	Apply	Procedural
CO2	Apply query processing techniques to automate the real time problems of databases.	PO1,PO2,PO3,PO4,PO5,PO8,PO9,PO10,PO11,PO12,PSO2	Apply	Procedural,
CO3	Identify and solve the redundancy problem in database tables using normalization.	PO1,PO2,PO3,PO4,PO5,PO6,PO8,PO9,PO10,PO11,PO12,PSO2	Analyze	Procedural
CO4	Understand the concepts of transactions and their processing.	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO8,PO9,PO10,PO11,PO12,PSO2	Apply	Procedural,
CO5	Design, develop and implement a small database project using database tools.	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO8,PO9,PO10,PO11,PO12,PSO2	Create	Meta Cognitive

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Ms. Shrankhla Saxena		5.	
2.Mr. Prince Gupta		6.	
3.Mr. Deep Kumar		7.	
4.		8.	



Signature of Course Coordinator

Assoc./ Asst. Head DOC



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.
- ❖ 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.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B. Tech

Academic Session: 2023-24 Year: 3rd Semester: 5th

Course Name: DBMS

Course Code: KCS-501 Course Coordinator Name: Ms. Shrankhla Saxena

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	3	-	-	2	-	-	2	2	-	3	2	-	3
CO2	3	3	2	2	3	-	-	1	2	2	3	2	-	3
CO3	3	3	3	3	2	1	-	1	2	1	2	2	-	3
CO4	3	2	3	3	2	2	2	1	2	2	2	2	-	3
CO5	3	2	2	2	3	2	2	1	2	1	3	2	-	3
PO Target	3	2.6	2.5	2.5	2.4	1.6	2	1.2	2	1.5	2.6	2		3

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Ms. Shrankhla Saxena		5.	
2.Mr. Prince Gupta		6.	
3.Mr. Deep Kumar		7.	
4.		8.	

 **Signature of Course Coordinator**

Assoc./ Asst. Head DOC

 **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.
- ❖ 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.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B. Tech **Semester:** 5th
Course Name: Web Technology **Year:** 3rd
Course Code: KIT 501 **Course Coordinator Name:** Ms. Latika Sharma

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Understand the basic concept of web development strategies, underlying technologies needed to build a web application and EJB.	PO1, PO3, PO5, PO11 /PSO2	Understand	Conceptual, Procedural
CO2	Implement the concepts of core java and networking using Java	PO1, PO2, PO3, PO4, PO11, PO12 /PSO2	Apply	Conceptual, Procedural
CO3	Apply the concept of markup language for user interfaces and XML.	PO1, PO3, PO4, PO11, PO12 /PSO2	Apply	Conceptual, Procedural
CO4	Apply client-side programming and server-side programming.	PO3, PO5, PO7, PO8, PO11, PO12/ PSO2	Apply	Conceptual, Procedural
CO5	Design a basic website using HTML, CSS, Javascript, Servlet, JDBC and JSP.	PO1, PO2, PO3, PO4, PO12 /PSO2	Create	Conceptual, Procedural

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Ms. Latika Sharma		5.	
2. Ms. Khushboo Pandey		6.	
3. Ms. Garima Singh		7.	
		8.	

Signature of Course Coordinator 

Assoc./ Asst. Head DOC

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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B. Tech

Academic Session: 2023-24

Year: 3rd

Semester: 5th

Course Name: Web Technology

Course Code: KIT 501

Course Coordinator Name: Ms. Latika Sharma

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	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	1	-	-	-	-	-	-	1	1	-	1
CO3	2	-	2	2	-	-	-	-	-	-	1	2	-	1
CO4	-	-	2	-	2	-	1	1	-	-	1	1	-	2
CO5	3	2	2	1	-	-	-	-	-	-	-	2	-	2
PO Target	2.25	2.0	2	1.50	2.50		1.0	1.0			1.25	1.50		1.6

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Ms. Latika Sharma		5.	
2. Ms. Khushboo Pandey		6.	
3. Ms. Garima Singh		7.	
		8.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.Tech

Course Name: DAA

Course Outcomes

Academic Session: 2023-24

Year: 3rd

Semester: 5th

Course Code: KCS-503

Course Coordinator Name: Swasti Singhal

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Analyze the complexity of algorithms and sorting techniques.	1,2,3,4,5,11,12/PSO2	4	C/P
CO2	Analyze advance data structure such as to calculate their operational complexity	1,2,3,4,5,11,12/PSO2	4	C/P
CO3	Apply the various algorithmic paradigms, including divide & conquer and greedy algorithms to solve the problems	1,2,3,4,5,11,12/PSO2	3	C/P
CO4	Analyze the solutions for optimization problems using dynamic programming and branch & bound techniques.	1,2,3,4,5,11,12/PSO2	4	C/P
CO5	Understand the concepts of NP completeness, Randomized and Approximation Algorithms.	1,2,3,4,11,12	2	C/P

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Swasti Singhal		5.	
2. Vinay Kumar		6.	
3. Ankit Kumar Saini		7.	
4.		8.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.Tech

Academic Session: 2023-24

Year: 3rd

Semester: 5th

Course Name: DAA

Course Code: KCS-503

Course Coordinator Name: Swasti Singhal

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	3	3	1	1						1	1		1
CO2	2	3	3	2	1						1	1		1
CO3	2	3	2	2	1						2	2		2
CO4	3	2	3	3	2						2	2		2
CO5	1	2	2	1							1	1		
PO Target	2.2	2.6	2.6	1.8	1.25						1.4	1.4		1.5

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Swasti Singhal		5.	
2.Vinay Kumar		6.	
3.Ankit Kumar Saini		7.	
4.		8.	



Signature of Course Coordinator



Assoc./ Asst. Head DOC



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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.tech

Academic Session: 2023-24

Year: 3rd

Semester: 5th

Course Name: Machine Learning Techniques

Course Code: KNC501

Course Coordinator Name: Sonia Deshmukh

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSO's/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Understand the basic theory of machine learning and approaches associated with it	PO1-PO3, PO12	Understand	Conceptual
CO2	Explain different supervised learning algorithms.	PO1-PO7, PO12	Analyze	Conceptual, Procedural
CO3	Explore various concepts related to Artificial neural network.	PO1-PO7, PO12	Analyze	Conceptual, Procedural
CO4	Elaborate the deep learning algorithms using case studies.	PO1-PO7, PO12	Analyze	Conceptual, Procedural
CO5	Apply models of reinforcement learning and Genetic algorithm for various application.	PO1-PO7, PO12	Apply	Conceptual, Procedural

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Sonia Deshmukh		4.	
2. Ashima Arya		5.	
3. Rashika Bangroo		6.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.tech

Academic Session: 2023-24

Year: 3rd

Semester: 5th

Course Name: Machine Learning Techniques

Course Code: KNC501

Course Coordinator Name: Sonia Deshmukh

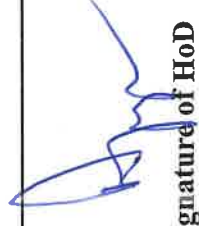
CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	1	1									1		
CO2	2	2	2	1	1	1	1					2		
CO3	2	2	2	1	1	1	1					2		
CO4	2	2	3	3	2	1	1					2		
CO5	2	2	2	1	3	1	1					2		
PO Target	2	1.8	2	1.5	1.75	1	1					1.8		

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Sonia Deshmukh		4.	
2. Ashima Arya		5.	
3. Rashika Bangroo		6.	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B.TECH

Academic Session:23-24

Semester:5th

Course Name: Object Oriented System Design

Course Code: KCS054

Course Coordinator Name: Silki Kharaliya

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Understand the various constructs of object oriented programming to implement applications.	PO1,PO3,PO4,PO5,PO9,P O10,PO11,PO12,PSO1,PS O2	Procedural	Analyze
CO2	Analyze the role of overall modeling concepts (i.e. System, structural)	PO2,PO3,PO4,PO5,PO11, PO12,PSO1,PSO2	Conceptual	Analyze
CO3	Analyze oops concepts (i.e. abstraction, inheritance)	PO2,PO3,PO4,PO5,PO11, PO12,PO13	Procedural	Analyze
CO4	Understand the basic concepts of C++ to implement the object-oriented concepts	PO3,PO5,PO11,PO11,PSO 1,PSO2	Conceptual	Analyze
CO5	Apply object-oriented approach to implement real world problem.	PO1,PO2,PO3,PO4,PO5,P O6,PO7,PO8,PO9,PO10,P O11,PO12,PSO1,PSO2	Meta-cognitive	Create

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Dr. Abhinav Juneja		5.	
2. Silki Kharaliya		6.	
3.		7.	
4.		8.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HbD

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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B.TECH

Academic Session: 23-24

Year: 3rd

Semester: 5th

Course Name: Object Oriented System Design

Course Code: KCS054

Course Coordinator Name: Silki Kharaliya

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	-	3	2	2	-	-	-	1	2	2	1	1	3
CO2	-	3	3	2	2	-	-	-	-	-	2	2	3	2
CO3	-	3	2	2	-	-	-	-	-	-	2	1	1	-
CO4	-	-	3	-	3	-	-	-	-	-	2	-	2	1
CO5	2	3	3	2	3	3	2	2	3	3	3	3	3	3
PO Target	2	3	2.80	2	2.5	3	2	2	2	2.5	2.2	1.75	2	2.25

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Dr. Abhinav Juneja		5.	
2. Silki Kharaliya		6.	
3.		7.	
4.		8.	

Signature of Course Coordinator



Assoc./ Asst. Head DOC



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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B.Tech
Course Name: DBMS Lab
Course Outcomes

Academic Session: 2023-24
Year: 3rd
Semester: 5th
Course Coordinator Name: Ms. Shrankhla Saxena
Course Code: KCS-551

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
C01	Design an information model expressed in the form of ER diagram.	PO1,PO2,PO3,PO4,PO5, PO11	Apply	Procedural
C02	Apply SQL queries to implement and manipulate the database and provide different constraints.	PO1,PO2,PO3,PO4,PO5, PO11	Apply	Procedural
C03	Apply structured query language to automate the real time problems of databases.	PO1,PO2,PO3,PO5,PO11	Apply	Meta Cognitive

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Ms. Shrankhla Saxena		5.	
2.Mr. Prince Gupta		6.	
3.Mr. Deep Kumar		7.	
4.Ms. Khushboo Pandey		8.	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HoD


Signature of HoD

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

- ◆ The strength of correlation between COs and POs/ PSOs/APOs should be represented as 1 (low correlation), 2 (medium correlation) and 3 (high correlation) in CO - PO/APO/PSO Matrix.
- ◆ If there is no correlation, then put a “-” (dash).

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B. Tech **Academic Session:** 2023-24 **Year:** 3rd **Semester:** 5th
Course Name: DBMS Lab **Course Code:** KCS-551 **Course Coordinator Name:** Ms. Shrankhla Saxena

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	2	1	3	2	3	-	-	-	-	-	1	-	1	3
CO2	2	1	3	2	3	-	-	-	-	-	1	-	1	2
CO3	3	2	2	-	3	-	-	-	-	-	1	-	1	2
PO Target	2.33	1.33	2.67	2.00	3.00	-	-	-	-	-	1.00	-	1	2.2

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Ms. Shrankhla Saxena		5.	
2.Mr. Prince Gupta		6.	
3.Mr. Deep Kumar		7.	
4.Ms. Khushboo Pandey		8.	



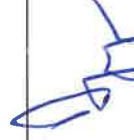
Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

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

- ❖ The strength of correlation between COs and POs/ PSOs/APOs should be represented as 1 (low correlation), 2 (medium correlation) and 3 (high correlation) in CO - PO/APO/PSO Matrix.
- ❖ If there is no correlation, then put a “-” (dash).

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B. Tech

Academic Session: 2023-24

Semester: 5th

Course Name: Web Technology Lab

Course Code: KIT 551

Course Coordinator Name: Ms. Latika Sharma

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSO	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Develop static web pages using HTML, dynamic web pages using JavaScript and XML, and dynamic web page using server-side programming JSP.	PO1, PO2, PO3, PO4, PO5, PO12/ PSO2	Apply	Conceptual, Procedural
CO2	Develop Java programs for window/web-based applications.	PO1, PO2, PO3, PO4, PO5, PO12/ PSO2	Apply	Conceptual, Procedural
CO3	Design server-side applications using JDBC, ODBC and section tracking API	PO1, PO2, PO3, PO4, PO5, PO12/ PSO2	Create	Conceptual, Procedural

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Ms. Latika Sharma		5.	
2. Ms. Khushboo Pandey		6.	
3. Ms. Garima Singh		7.	
		8.	


Signature of Course Coordinator

Assoc./ Asst. Head DOC


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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B. Tech

Academic Session: 2023-24

Year: 3rd

Semester: 5th

Course Name: Web Technology Lab

Course Code: KIT 551

Course Coordinator Name: Ms. Latika Sharma

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	2	1	1	1	-	-	-	-	-	-	1	-	2
CO2	3	2	1	1	1	-	-	-	-	-	-	1	-	2
CO3	3	3	3	3	3	-	-	-	-	-	-	3	-	2
PO Target	3	2.3	1.6	1.6	1.6	-	-	-	-	-	-	1.6	-	2

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Ms. Latika Sharma		5.	
2. Ms. Khushboo Pandey		6.	
3. Ms. Garima Singh		7.	
		8.	


Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.Tech

Academic Session: 2023-24

Semester: 5th

Course Name: DAA LAB

Course Code: KCS-553

Course Coordinator Name: Swasti Singhal

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Understand basic techniques for designing algorithms, including the techniques of recursion and iterative approach	PO1, PO2, PO3, PO4, PO5, PO11, PO12, PSO2	2	C/P
CO2	Apply algorithms to solve problems using various algorithm design strategies.	PO1, PO2, PO3, PO4, PO5, PO11, PO12, PSO2	3	C/P
CO3	Analyze the performance of algorithms with respect to time and space complexity	PO1, PO2, PO3, PO4, PO5, PO11, PO12, PSO2	4	C/P

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Swasti Singhal		5.	
2. Vinay Kumar		6.	
3. Ankit Kumar Saini		7.	
4.		8.	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


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.
- 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.Tech

Academic Session: 2023-24

Year: 3rd

Semester: 5th

Course Name: DAA LAB

Course Code: KCS-553

Course Coordinator Name: Swasti Singhal

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	2	2	2	2						1	2		1
CO2	3	2	2	2	2						1	2		2
CO3	3	2	2	2	2						1	2		2
PO Target	3.00	2.00	2.00	2.00	2.00						1.00	2.00		1.67

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Swasti Singhal		5.	
2.Vinay Kumar		6.	
3.Ankit Kumar Saini		7.	
4.		8.	

 Signature of Course Coordinator

 Assoc./ Asst. Head DOC

 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.
- 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.tech

Academic Session: 2023-24

Year: 3rd Semester: 5th

Course Name: Mini Project or Internship Assessment

Course Code: KCS554

Course Coordinator Name: Mr. Deep Kumar

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Correlate the technical knowledge acquired in the internships for solving real world problems	PO1, PO2, PO6, PO7, PO8, PO9, PO11, PO12	Analyze	C
CO2	Engage in the creative design process through the integration and application of diverse technical knowledge and expertise to meet customer needs and address social issues.	PO1, PO3, PO4, PO5, PO6, PO8, PO9, PO11, PO12	Create	P
CO3	Use the various tools & techniques, coding practices for developing real life solution to the problem.	PO1, PO8, PO9, PO10, PO11, PO12	Evaluate	C

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Mr. Deep Kumar		5.	
2.Ms. Rashika Bangaroo		6.	
3.Ms. Supriya Dubey		7.	
4. Dr. Ankur Garg		8.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.tech

Academic Session: 2023-24

Year: 3rd Semester: 5th

Course Name: Mini Project or Internship Assessment

Course Code: KCS554

Course Coordinator Name: Mr. Deep Kumar

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	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

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Mr. Deep Kumar		5.	
2.Ms. Rashika Bangaroo		6.	
3.Ms. Supriya Dubey		7.	
4. Dr. Ankur Garg		8.	

 **Signature of Course Coordinator**

Assoc./ Asst. Head DOC

 **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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.Tech

Academic Session: 2023-24

Semester: 5th

Course Name: CILE

Course Code: KNC-501

Course Coordinator Name: Ankit Kumar Saini

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSO's/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Identify and explore the basic features and modalities about the Indian constitution.	PO6, PO7	Understand	Factual /Conceptual
CO2	Differentiate and relate the functioning of Indian parliamentary system at the center and state level	PO6, PO7,	Analyze	Factual/ Procedural
CO3	Differentiate different aspects of the Indian Legal System and its related bodies.	PO6, PO7, PO8	Understand	Factual /Conceptual
CO4	Discover and apply different laws and regulations related to engineering practices.	PO6, PO7, PO8, PO10	Understand	Factual /Conceptual
CO5	Correlate role of engineers with different organizations and governance models	PO6, PO7, PO8, PO9, PO10, PO11, PO12	Understand	Factual /Conceptual

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Ankit Kumar Saini		5.	
2. Sonia Deshmukh		6.	
3. Jaswinder Singh		7.	
4.		8.	



Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.Tech
Course Name: CILE

Academic Session: 2023-24 Semester: 5th
Year: 3rd
Course Code: KNC-501 Course Coordinator Name: Ankit Kumar Saini

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	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	1.67	2	2	2	2	-	-

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Ankit Kumar Saini		5.	
2. Sonia Deshmukh		6.	
3. Jaswinder Singh		7.	
4.		8.	



Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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

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 1	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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.Tech.

Academic Session: 2023-24

Year: 4th

Semester: 7th

Course Name: RDAP

Course Code: KHU701

Course Coordinator Name: Prince Gupta

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Understand the definitions, concepts and components of Rural Development.	P6, P7, P8, P11, P12	Understand	Conceptual
CO2	Understand the importance, structure, significance, resources of Indian rural economy.	P6, P7, P8, P12	Understand	Conceptual
CO3	Illustrate the idea about the area development programmes and its impact.	P6, P7, P8, P12	Understand	Conceptual
CO4	Understand the concept of rural entrepreneurship.	P6, P7, P8, P9, P11, P12	Understand	Conceptual
CO5	Analyze the different methods for human resource planning.	P6, P7, P8, P9, P11, P12	Analyze	Conceptual, Procedural

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Prince Gupta		5.	
2. Latika Sharma		6.	
3. Swasti Singhal		7.	
4.		8.	

 **Signature of Course Coordinator**

Assoc./ Asst. Head DOC

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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.Tech.

Academic Session: 2023-24

Year: 4th

Semester: 7th

Course Name: RDAP

Course Code: KHU701

Course Coordinator Name: Prince Gupta

CO - PO/PSO/APO Matrix

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

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Prince Gupta		5.	
2. Latika Sharma		6.	
3. Swasti Singhal		7.	
4.		8.	



Signature of Course Coordinator



Assoc./ Asst. Head DOC



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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B.TECH.

Academic Session: 2023-24

Year: 4th

Semester: 7th

Course Name: AI

Course Code: KCS 071

Course Coordinator Name: Dr. DEEPAK SETHI

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Understand the concept of artificial intelligence and intelligent agents.	PO1, PO 6, PO 7, PO 12, PSO1, PSO2	Understand	CONCEPTUAL
CO2	Apply basic principles of AI in solutions that require problem solving methods.	PO 1, PO 2, PO 3, PO 4, PO 5, PO 12, PSO1, PSO2	Apply	PROCEDURAL
CO3	Determine the effectiveness of truths by knowledge representation methods in AI.	PO 1, PO 2, PO 3, PO 4, PO 5, PO 12, PSO1, PSO2	Evaluate	PROCEDURAL
CO4	Understand intelligent agents by exploring the architecture and communication of agents.	PO 1, PO 2, PO 3, PO 4, PO 5, PO 8, PO 11 PO 12, PSO1, PSO2	Understand	PROCEDURAL
CO5	Analyze various AI applications in Information retrieval and extraction, Natural Language Possessing, speech recognition and Robots.	PO 1, PO 2, PO 3, PO 4, PO 5, PO 6, PO 7, PO 8, PO 12, PSO1, PSO2	Analyze	CONCEPTUAL

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Ms. ARTI PANDEY		5.	
2. Dr. DEEPAK SETHI		6.	
3.		7.	
4.		8.	



Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B.TECH.

Academic Session: 2023-24

Year: 4th

Semester: 7th

Course Name: AI

Course Code: KCS 071

Course Coordinator Name: Dr. DEEPAK SETHI

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3					2	2					3	2	2
CO2	3	3	2	2	3							3	3	2
CO3	3	3	2	3	3							2	3	3
CO4	3	3	3	3	3			2			2	2	3	3
CO5	3	3	2	3	3	3	2	2				2	3	3
PO Target	3	3	2.2 5	2.75	3	2.5	2	2			2	2.4	2.8	2.6

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Ms. ARTI PANDEY		5.	
2. Dr. DEEPAK SETHI		6.	
3.		7.	
4.		8.	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B.Tech.

Academic Session: 2023-24

Year: 4th

Semester: 7th

Course Name: Cloud Computing

Course Code: KCS713

Course Coordinator Name: Mr. Ambrish Gangal

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Describe architecture and underlying principles of cloud computing.	PO2, PO6, PSO1	Understand	Conceptual
CO2	Analyze need, types and tools used for Virtualization in cloud computing	PO1, PO2, PO3, PO5, PO6, PSO1	Analyze	Conceptual
CO3	Illustrate Services Oriented Architecture and various types of cloud services.	PO1, PO2, PO3, PO6, PSO1	Apply	Conceptual
CO4	Evaluate cloud computing security services and standards.	PO1, PO2, PO3, PO4, PO5, PO6, PSO1	Evaluate	Conceptual
CO5	Analyze advanced cloud technologies.	PO3, PO4, PO6, PSO1, PSO2	Analyze	Conceptual

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Mr. Ambrish Gangal		5.	
2. Ms. Shaili Singhal		6.	
3.		7.	
4.		8.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B.Tech.

Academic Session: 2023-24

Year: 4th

Semester: 7th

Course Name: Cloud Computing

Course Code: KCS 713

Course Coordinator Name: Mr. Ambrish Gangal

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1		1				2							1	
CO2	1	3	2		1	2							2	
CO3	2	2	1			2							2	
CO4	2	2	2	1	2	3	2						2	
CO5			3	3									2	1
PO Target	1.67	2	2	2	1.5	2.25	2						1.8	1

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Mr. Ambrish Gangal		5.	
2. Ms. Shaili Singhal		6.	
3.		7.	
4.		8.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad
Department of Computer Science and Information Technology

Semester: VII
 Year: IV
 Course Coordinator Name: Mr. Alok Pandey

Program Name: B.Tech
 Course Name: Vision for Humane Society
 Academic Session: 2023-24
 Course Code: KOE 076

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO-1	-	-	-	-	-	1	2	2	2	3	1	1	-	-
CO-2	-	-	-	-	-	1	2	2	2	3	1	1	-	-
CO-3	-	-	-	-	-	1	2	3	2	3	1	1	-	-
CO-4	-	-	-	-	-	1	2	3	3	3	1	1	-	-
CO-5	-	-	-	-	-	1	2	3	3	3	1	1	-	-
Target Level	-	-	-	-	-	1	2	2.60	2.40	3	1	1	-	-

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Mr. Alok Pandey		5.	
2.		6.	
3.		7.	
4.		8.	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Semester: VII
Year: IV
Course Coordinator Name: Mr. Alok Pandey

Program Name: B.Tech
Course Name: Vision for Humane Society
Academic Session: 2023-24
Course Code: KOE 076

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSO's/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Analyze the human aspirations, its fulfillment and need of universal human order.	PO6, PO7, PO8, PO9, PO10, PO11, PO12	K4	Conceptual Procedural
CO2	Analyze the types of human-human relationship and its fulfillment.	PO6, PO7, PO8, PO9, PO10, PO11, PO12	K3	Conceptual Procedural
CO3	Analyze justice from family to world family order.	PO6, PO7, PO8, PO9, PO10, PO11, PO12	K3, K4	Conceptual Procedural
CO4	Analyze the conceptual framework of undivided society as well as universal human order.	PO6, PO7, PO8, PO9, PO10, PO11, PO12	K3	Conceptual Procedural
CO5	Analyze the transition from current state to the undivided society and universal human order.	PO6, PO7, PO8, PO9, PO10, PO11, PO12	K3	Conceptual Procedural

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Mr. Alok Pandey		5	
2.		6.	
3.		7.	
4.		8.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B.TECH.

Academic Session: 2023-24

Year: 4th

Semester: 7th

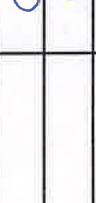
Course Name: AI LAB

Course Code: KIT 751A

Course Coordinator Name: Dr. DEEPAK SETHI

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Identify problems where artificial intelligence techniques are applicable.	PO1, PO 3, PO 4, PO 5, PO 6, PO7, PO9, PO 12, PSO1, PSO2	Apply	PROCEDURAL
CO2	Apply selected basic AI techniques; judge applicability of more advanced techniques.	PO 1, PO 2, PO 3, PO 4, PO 5, PO 6, PO7, PO 12, PSO1, PSO2	Apply	PROCEDURAL
CO3	Participate in the design of systems that act intelligently and learn from experience.	PO 1, PO 2, PO 3, PO 5, PO6, PO 12, PSO1, PSO2	Evaluate	PROCEDURAL

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Ms. ARTI PANDEY		5.	
2. Dr. DEEPAK SETHI		6.	
3.		7.	
4.		8.	


Signature of Course Coordinator

Assoc./ Asst. Head DOC


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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science & Information Technology

Program Name: B.TECH.

Academic Session: 2023-24 Year: 4th Semester: 7th

Course Name: AI LAB

Course Code: KIT 751A

Course Coordinator Name: Dr. DEEPAK SETHI

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3		3	2	2	2	2		2			2	2	2
CO2	3	2	3	3	2	3	3					3	2	2
CO3	3	2	3		2	3						3	2	2
PO Target	3	2	3	2.5	2	2.6	2.5		2			2.6	2	2

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Ms. ARTI PANDEY		5.	
2. Dr. DEEPAK SETHI		6.	
3.		7.	
4.		8.	


Signature of Course Coordinator

Assoc./ Asst. Head DOC


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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.tech

Academic Session: 2023-24

Year: 4th Semester: 7th

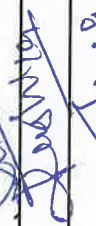
Course Name: Mini Project or Internship Assessment

Course Code: KIT-752

Course Coordinator Name: Supriya Dubey

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Correlate the technical knowledge acquired in the internships for solving real world problems	PO1,PO2,PO6,PO7,PO8, PO9,PO11,PO12	Analyze	C
CO2	Engage in the creative design process through the integration and application of diverse technical knowledge and expertise to meet customer needs and address social issues.	PO1, PO3, PO4, PO5, PO6,PO8,PO9,PO11,PO12	Create	P
CO3	Use the various tools & techniques, coding practices for developing real life solution to the problem.	PO1, PO8, PO9,PO10,PO11,PO12	Evaluate	C

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Ms. Supriya Dubey		5.	
2.Mr. Ambrish Gangal		6.	
3.Ms. Rashika		7.	
4. Ms. Jaya Sharma		8.	



Signature of Course Coordinator



Assoc./ Asst. Head DOC



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.
- 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name: B.tech

Academic Session: 2023-24

Year: 4th Semester: 7th

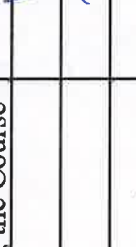
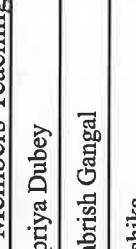
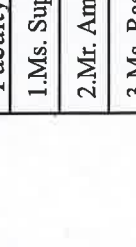
Course Name: Mini Project or Internship Assessment

Course Code: KIT-752

Course Coordinator Name: Supriya Dubey

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	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

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Ms. Supriya Dubey		5.	
2.Mr. Ambrish Gangal		6.	
3.Ms. Rashika		7.	
4. Ms. Jaya Sharma		8.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name:

Academic Session: 2023-24 Year: 4th Semester: 7th

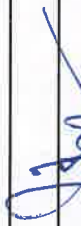
Course Name: Project-1

Course Code: KIT753

Course Coordinator Name: Ms. Ashima Arya

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Summarize all aspects of the real-life problem through a survey.	PO1, PO2, PO4, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2	2	Conceptual
CO2	Apply acquired knowledge to develop a working model and plan different phases for its execution.	PO2, PO3, PO4, PO5, PO9, PO10, PO11, PO12, PSO1, PSO2	3	Procedural
CO3	Analyze the outcome of each phase using various tools, techniques, and coding practices.	PO2, PO3, PO4, PO5, PO9, PO10, PO11, PO12, PSO2	4	Procedural
CO4	Test the working model and modify related phases accordingly.	PO2, PO4, PO5, PO9, PO10, PO11, PO12, PSO2	5	Procedural
CO5	Justify opinions, validity of ideas or quality of work based on a set of criteria.	PO2, PO4, PO9, PO10, PO11, PO12, PSO1, PSO2	5	Procedural

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Ms. Ashima Arya		5.	
2.Dr. Rohit Vashisht		6.	
3.Ms. Jaya Sharma		7.	
4.		8.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

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.
- ❖ 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

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Computer Science and Information Technology

Program Name:

Academic Session: 2023-24 Year: 4th Semester: 7th

Course Name: Project-1

Course Code: KIT753

Course Coordinator Name: Ms. Ashima Arya

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	2	1	3	1	1	1	2	3	3	3	3	1	1
CO2	1	2	3	3	3	2	1	1	3	2	3	3	1	2
CO3	1	3	3	3	1	-	-	1	3	2	3	3	-	2
CO4	1	3	1	3	1	-	-	1	3	2	3	3	-	1
CO5	1	3	1	3	1	1	-	1	3	2	3	3	1	1
PO Target	1.4	2.6	1.8	3	1.4	1.33	1	1.2	3	2.2	3	3	1	1.4

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1.Ms. Ashima Arya		5.	
2.Dr. Rohit Vashisht		6.	
3.Ms. Jaya Sharma		7.	
4.		8.	

 **Signature of Course Coordinator**

 **Assoc./ Asst. Head DOC**

 **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.
- ❖ 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