Sri Shridevi Charitable Trust (R.)
SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY
Sira Road, Tumkur - 572 106, Karnataka, India
Phone: 0816 - 2212629 | Principal: 0816 - 2212627, 9886114699 | Telefax: 0816 - 2212628
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(Approved by AICTE, New Delhi, Recognised by Govt. of Karnataka and Affiliated to Visvesvaraya Technological University, Belagavi)

ESTD: 2002

DEPARTMENT OF ARTIFICIAL INTELLGENCE AND DATA SCIENCE

ODD SEMISTER (3rd)

AY:2022-2023

HOD
[Dr. Girish L]

PRINCIPAL
SIET, TUMKUR.

Principal

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

COURSE OUTCOME

CO1: Explain the fundamentals of data structures and their applications essential for implementing solutions to problems
CO2: Illustrate representation structures: Stack, Queues, Linked of data Lists, Trees and Graphs.
CO3: Design and Develop Solutions to problems using Arrays, Structures, Stack, Queues, Linked Lists.
CO4: Explore usage of Trees and Graph for application development.
CO5: Apply the Hashing techniques in mapping key value pairs.

PROGRAM OUTCOMES

PO1:	**Engineering knowledge:** An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge
PO2:	**Problem analysis:** Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences
PO3:	**Design / development of solutions:** An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.
PO4:	**Conduct investigations of complex Problem:** An ability to identify, formulate, comprehend, analyse, design synthesis of the information to solve complex engineering problems and provide valid conclusions.
PO5:	**Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities.
PO6:	**The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.
PO7:	**Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8:	**Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9:	**Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10:	**Communication:** Communicate effectively on complex engineering activities with the engineering community and with the society
PO11:	**Project management and finance:** An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.
PO12:	**Life-long learning:** A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning

PRINCIPAL
SIET. TUMKUR.

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY						
FACULTY NAME	MRS. SHRUTHI S						
BRANCH	AI&DS		ACADEMIC YEAR		2022-23		
PROGRAM	B.E	SEMESTER	III	SECTION	C		
COURSE NAME	DATA STRUCUTRES AND APPLICATIONS			COURSE CODE	21CS32		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3											1	2		
CO2	3	3	3	2	1							1	2		
CO3	3	2	3	3	1	2						1	2		
CO4	3	3	3	3	1	3						2	2		
CO5	3	2	3	1	1							2	1		
AVERAGE	3.0	2.5	3.0	2.25	1.0	2.5						2.0	1.8		
OVERALL MAPPING OF COURSE															2.25

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	61	1.83											0.61	1.22		
CO2	57.5	1.71	1.71	1.71	1.15	0.57							0.57	1.71		
CO3	56.8	1.70	1.13	1.70	1.70	0.56	1.13						0.56	1.70		
CO4	58.8	1.76	1.76	1.76	1.76	0.58	1.76						1.17	1.17		
CO5	58.7	1.76	1.17	1.76	0.58	0.58							1.17	0.58		
AVERAGE		1.75	1.44	1.73	1.30	0.57	1.45						0.82	1.28		
FINAL ATTAINMENT LEVEL																1.29

HOD
Department of AI&DS
SIET Tumakuru

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IV SEM "C" SECTION(AI & DS)

SUB: Design & Analysis Of Algoirtham			21CS42		2022-2023	EVEN		NAME OF THE STAFF		Mrs.Shruthi S																
Roll No.	USN	Name	IA MARKS			T1	T2		T3		ASSIGNMENT 10 + Practical 20					SEE						FINAL					TOTAL AVG
			T1	T2	T3	CO1-20	CO2-10	CO3-10	CO4-10	CO5-10	CO1-6	CO2-6	CO3-6	CO4-6	CO5-6	SEE (50)	CO1-10	CO2-10	CO3-10	CO4-10	CO5-10	CO1-36	CO2-26	CO3-26	CO4-26	CO5-26	
1	1SV21AD001	ARUN NKUMAR G T	8	11	5	8	5	6	2	3	6	6	6	6	6	21	4.20	9.33	9.33	9.33	9.33	18	20	21	17	18	19
2	1SV21AD002	BHARATH KUMAR P	8	15	14	8	8	7	7	7	6	6	6	6	6	13	2.60	7.83	7.83	7.83	7.83	17	22	21	21	21	20
3	1SV21AD003	BHAVANA	16	14	18	16	7	7	9	9	6	6	6	6	6	29	5.80	6.33	6.33	6.33	6.33	28	19	19	21	21	22
4	1SV21AD004	CHANDANA K	8	10	14	8	5	5	7	7	6	6	6	6	6	30	6.00	6.67	6.67	6.67	6.67	20	18	18	20	20	19
5	1SV21AD005	DHARSHAN C N	9	13	13	9	6	7	6	7	6	6	6	6	6	21	4.20	7.33	7.33	7.33	7.33	19	19	20	19	20	20
6	1SV21AD006	DHARSHAN G K	6	6	11	6	3	3	5	6	6	6	6	6	6	18	3.60	5.50	5.50	5.50	5.50	16	15	15	17	18	16
7	1SV21AD008	FAIZ AHAMED	5	3	10	5	2	1	5	5	6	6	6	6	6	20	4.00	8.83	8.83	8.83	8.83	15	17	16	20	20	17
8	1SV21AD009	FATHIMA MUSKAN	17	19	20	17	9	10	10	10	6	6	6	6	6	35	7.00	3.83	3.83	3.83	3.83	30	19	20	20	20	22
9	1SV21AD010	H R SUDEEP KUMAR	7	10	13	7	5	5	6	7	6	6	6	6	6	18	3.60	3.83	3.83	3.83	3.83	17	15	15	16	17	16
10	1SV21AD011	HEENA KOUSAR	13	8	15	13	4	4	7	8	6	6	6	6	6	18	3.60	7.33	7.33	7.33	7.33	23	17	17	20	21	20
11	1SV21AD012	LALITHA T M	17	12	12	17	6	6	6	6	6	6	6	6	6	30	6.00	0.00	0.00	0.00	0.00	29	12	12	12	12	15
12	1SV21AD013	LOKESH MURTHY T M	9	10	15	9	5	5	7	8	6	6	6	6	6	21	4.20	7.83	7.83	7.83	7.83	19	19	19	21	22	20
13	1SV21AD015	MEGHANA C N	16	17	17	16	8	7	8	7	6	6	6	6	6	28	5.60	7.83	7.83	7.83	7.83	28	22	21	22	21	23
14	1SV21AD016	MOHAMMED AMEEN TZ	10	10	19	10	5	5	10	9	6	6	6	6	6	32	6.40	7.83	7.83	7.83	7.83	22	19	19	24	23	21
15	1SV21AD017	MOHAMMED NOUMAN USMANI	8	8	16	8	4	4	8	8	6	6	6	6	6	13	2.60	6.33	6.33	6.33	6.33	17	16	16	20	20	18
16	1SV21AD019	MUHANNAD KHAN	9	13	13	9	6	7	6	7	6	6	6	6	6	29	5.80	6.50	6.50	6.50	6.50	21	19	20	19	20	19
17	1SV21AD020	MUTHAHIREEN	13	20	17	13	10	10	8	9	6	6	6	6	6	28	5.60	7.83	7.83	7.83	7.83	25	24	24	22	23	23
18	1SV21AD021	NIRANJAN K V	17	20	19	17	10	10	10	9	6	6	6	6	6	26	5.20	6.50	6.50	6.50	6.50	28	23	23	23	22	23
19	1SV21AD022	NOOR UL HUDA	20	11	18	20	5	6	9	9	6	6	6	6	6	37	7.40	7.50	7.50	7.50	7.50	33	19	20	23	23	23
20	1SV21AD023	PRADEEP N	10	9	12	10	4	5	6	6	6	6	6	6	6	14	2.80	6.67	6.67	6.67	6.67	19	17	18	19	19	18
21	1SV21AD024	PRAJWAL S	8	11	5	8	6	5	0	5	6	6	6	6	6	22	4.40	6.83	6.83	6.83	6.83	18	19	18	13	18	17
22	1SV21AD025	PRASHANTH G M	6	15	15	6	8	7	8	7	6	6	6	6	6	23	4.60	6.83	6.83	6.83	6.83	17	21	20	21	20	20
23	1SV21AD026	RAJNISH PRASAD	20	17	20	20	8	7	10	10	6	6	6	6	6	37	7.40	6.50	6.50	6.50	6.50	33	21	20	23	23	24
24	1SV21AD027	RAKSHITHA B R K	7	11	14	7	5	6	7	7	6	6	6	6	6	19	3.80	8.00	8.00	8.00	8.00	17	19	20	21	21	20
25	1SV21AD028	RAMYASHREE M	12	10	18	12	5	5	9	9	6	6	6	6	6	31	6.20	5.00	5.00	5.00	5.00	24	16	16	20	20	19
26	1SV21AD029	REKHA H	5	13	15	5	6	7	7	8	6	6	6	6	6	10	2.00	7.33	7.33	7.33	7.33	13	19	20	20	21	19
27	1SV21AD030	SHIFA KOUSER	6	12	15	6	6	6	7	8	6	6	6	6	6	27	5.40	8.83	8.83	8.83	8.83	17	21	21	22	23	21
28	1SV21AD031	SRINIDHI S H	5	8	16	5	4	4	8	8	6	6	6	6	6	18	3.60	6.00	6.00	6.00	6.00	15	16	16	20	20	17
29	1SV21AD032	SUHAS J K	10	15	0	10	8	7	0	0	6	6	6	6	6	0	0.00	7.50	7.50	7.50	7.50	16	22	21	14	14	17
30	1SV21AD033	SWAMY H R	9	0	16	9	0	0	8	8	6	6	6	6	6	34	6.80	5.00	5.00	5.00	5.00	22	11	11	19	19	16
31	1SV21AD034	SYEDA UROOJ FATHIMA	19	15	20	19	7	8	10	10	6	6	6	6	6	32	6.40	6.00	6.00	6.00	6.00	31	19	20	22	22	23
32	1SV21AD035	SYEEDA FATHIMUZ ZOHARA	18	20	19	18	10	10	9	10	6	6	6	6	6	38	7.60	6.50	6.50	6.50	6.50	32	23	23	22	23	24
33	1SV21AD036	ULLAS P M	0	7	16	0	4	3	8	8	6	6	6	6	6	12	2.40	6.67	6.67	6.67	6.67	8	17	16	21	21	16
34	1SV21AD037	VIDYASHREE A	19	20	18	19	10	10	9	9	6	6	6	6	6	28	5.60	6.83	6.83	6.83	6.83	31	23	23	22	22	24
35	1SV21AD038	VINAY KUMAR	20	20	18	20	10	10	9	9	6	6	6	6	6	39	7.80	5.33	5.33	5.33	5.33	34	21	21	20	20	23
36	1SV21AD039	VYSHNAVI P	18	18	20	18	9	9	10	10	6	6	6	6	6	34	6.80	7.00	7.00	7.00	7.00	31	22	22	23	23	24
37	1SV21AD040	ZEESHAN PASHA	6	9	11	6	4	5	6	5	6	6	6	6	6	22	4.40	7.17	7.17	7.17	7.17	16	17	18	19	18	18
38	1SV22AD400	GOUTHAM K M	10	15	17	10	7	8	8	9	6	6	6	6	6	32	6.40	5.83	5.83	5.83	5.83	22	19	20	20	21	20
39	1SV22AD401	SHANTHA T R	11	7	18	11	4	3	9	9	6	6	6	6	6	19	3.80	5.50	5.50	5.50	5.50	21	16	15	21	21	18
40	1SV22AD402	SRINIVASULU V	12	12	16	12	6	6	8	8	6	6	6	6	6	28	5.60	7.33	7.33	7.33	7.33	24	19	19	21	21	21
41	1SV22AD403	T M YUVA PRASAD	15	15	10	15	7	8	5	5	6	6	6	6	6	31	6.20	8.33	8.33	8.33	8.33	27	21	22	19	19	22
																						22.23	18.76	18.83	19.88	20.17	
																						61.7%	72.1%	72.4%	76.5%	77.6%	

HOD
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ESTD: 2002

DEPARTMENT OF AI & DS

SUBJECT	ANALOG AND DIGITAL ELECTRONICS	SUBJECT CODE	21CS33

COURSE OUTCOME

CO 1. Explain the use of photo electronics devices, 555 timer IC, Regulator ICs and uA741
CO 2. Make use of simplifying techniques in the design of combinational circuits.
CO 3. Illustrate combinational and sequential digital circuits
CO 4. Demonstrate the use of flipflops and apply for registers
CO 5. Design and test counters, Analog-to-Digital and Digital-to-Analog conversion techniques.

PSO1: To Create, select, and apply appropriate techniques, resources, modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PSO2: To manage complex IT projects with consideration of the human, financial, ethical and environmental factors and an understanding of risk management processes, and operational and policy implications.

PSO3: Acquaint module knowledge on emerging trends of the modern era in computer science and engineering.

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3 Design / development of solutions:An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage:Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

PO7 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need forsustainable development.

PO8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10 Communication: Communicate effectively on complex engineering activities with the engineering community and with the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

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ESTD: 2002

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	Prof. Kavyashree (Dr. CHARAN K V)				
BRANCH	AI & DS	ACADEMIC YEAR	2022-23		
COURSE	B.E	SEMESTER	III	SECTION	C
SUBJECT	ANALOG AND DIGITAL ELECTRONICS	SUBJECT CODE	21CS33		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	1	3			2	1	1	1	2
CO2	3	3	3	1	1			2	1	1	1	2
CO3	3	2	2	1	1			2	1	1	1	2
CO4	3	3	3	1	1			2	1	1	1	2
CO5	3	2	2	1	1			2	1	1	1	2
AVERAGE	3	2.4	2.6	1	1.4			2	1	1	1	2
											OVERALL MAPPING OF SUBJECT	1.45

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	0.28	0.8565	0.571	0.857	0.2855	0.8565			0.571	0.2855	0.2855	0.2855	0.571
CO2	0.24	0.7251	0.725	0.725	0.2417	0.2417			0.4834	0.2417	0.2417	0.2417	0.4834
CO3	0.28	0.8697	0.58	0.58	0.2899	0.2899			0.5798	0.2899	0.2899	0.2899	0.5798
CO4	0.28	0.8697	0.58	0.58	0.2899	0.2899			0.5798	0.2899	0.2899	0.2899	0.5798
CO5	0.25	0.7782	0.519	0.259	0.2594	0.2594			0.2594	0.2594	0.2594	0.2594	0.5188
AVERAGE	0.266	0.817	0.545	0.558	0.27	0.557			0.41	0.272	0.272	0.272	0.54
												FINAL ATTAINMENT LEVEL	1.55

HOD
Department of AI&DS
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SIET, TUMKUR.

Academic year	2022-23		SEM	(CSE / ISE)	Total strength		37	21CS33			Analog and Digital Electronics										% of individual CO					Total CO's Attainment					SEE Tot
	IA TEST 1(30M)			IA TEST 2(30M)			IA TEST 3(30M)			ASSIGNEMENT / QUIZ(20 M)					SEE MARKS(50)															
USN	CO1	CO2	TOTAL	CO3	CO4	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2	CO3	CO4	CO5	CO1=44	CO2=29	CO3=29	CO4=29	CO5=29	CO1	CO2	CO3	CO4	CO5	60M
1SV21AD001	14	14	28	14.5	14.5	29	13.5	13.5	27	2	2	2	2	2	8	8	8	8	10	86.36364	84.4828	84.48276	81.03448	87.93103	38	24.5	24.5	23.5	25.5	40
1SV21AD002	14	14	28	15	15	30	15	15	30	2	2	2	2	2	6.2	6.2	6.2	6.2	7.75	82.27273	80	80	80	85.34483	36.2	23.2	23.2	23.2	24.75	31
1SV21AD003	14	14	28	13.5	13.5	27	10	10	20	2	2	2	2	2	7.4	7.4	7.4	7.4	9.25	85	78.9655	78.96552	66.89655	73.27586	37.4	22.9	22.9	19.4	23.25	37
1SV21AD004	14	14	28	14.5	14.5	29	11	11	22	2	2	2	2	2	5.2	5.2	5.2	5.2	6.5	80	74.8276	74.82759	62.75862	67.24138	35.2	21.7	21.7	18.2	19.5	26
1SV21AD005	14.5	14.5	29	14.5	14.5	29	14	14	28	2	2	2	2	2	8.2	8.2	8.2	8.2	10.25	89.09091	85.1724	85.17241	83.44828	90.51724	39.2	24.7	24.7	24.2	26.25	41
1SV21AD006	14	14	28	15	15	30	12	12	24	2	2	2	2	2	10	10	10	10	12.5	90.90909	93.1034	93.10345	82.75862	91.37931	40	27	27	24	26.5	50
1SV21AD008	14	14	28	15	15	30	14.5	14.5	29	2	2	2	2	2	7.8	7.8	7.8	7.8	9.75	85.90909	85.5172	85.51724	83.7931	90.51724	37.8	24.8	24.8	24.3	26.25	39
1SV21AD009	14.5	14.5	29	14.5	14.5	29	10	10	20	2	2	2	2	2	7.8	7.8	7.8	7.8	9.75	88.18182	83.7931	83.7931	68.27586	75	38.8	24.3	24.3	19.8	21.75	39
1SV21AD010	15	15	30	15	15	30	13	13	26	2	2	2	2	2	6.4	6.4	6.4	6.4	8	87.27273	80.6897	80.68966	73.7931	79.31034	38.4	23.4	23.4	21.4	23	32
1SV21AD011	14.5	14.5	29	15	15	30	14.5	14.5	29	2	2	2	2	2	8.4	8.4	8.4	8.4	10.5	89.54545	87.5862	87.58621	85.86207	93.10345	39.4	25.4	25.4	24.9	27	42
1SV21AD012	15	15	30	15	15	30	11.5	11.5	23	2	2	2	2	2	7	7	7	7	8.75	88.63636	82.7586	82.75862	70.68966	76.72414	39	24	24	20.5	22.25	35
1SV21AD013	15	15	30	15	15	30	14	14	28	2	2	2	2	2	10	10	10	10	12.5	95.45455	93.1034	93.10345	89.65517	98.27586	42	27	27	26	28.5	50
1SV21AD015	14	14	28	15	15	30	13.5	13.5	27	2	2	2	2	2	10	10	10	10	12.5	90.90909	93.1034	93.10345	87.93103	96.55172	40	27	27	25.5	28	50
1SV21AD016	12	12	24	10	10	20	10.5	10.5	21	2	2	2	2	2	8	8	8	8	10	77.27273	68.9655	68.96552	70.68966	77.58621	34	20	20	20.5	22.5	40
1SV21AD017	14	14	28	14.5	14.5	29	13.5	13.5	27	2	2	2	2	2	9	9	9	9	11.25	88.63636	87.931	87.93103	84.48276	92.24138	39	25.5	25.5	24.5	26.75	45
1SV21AD019	12	12	24	15	15	30	10	10	20	2	2	2	2	2	7.6	7.6	7.6	7.6	9.5	76.36364	84.8276	84.82759	67.58621	74.13793	33.6	24.6	24.6	19.6	21.5	38
1SV21AD020	14.5	14.5	29	15	15	30	10	10	20	2	2	2	2	2	8.8	8.8	8.8	8.8	11	90.45455	88.9655	88.96552	71.72414	79.31034	39.8	25.8	25.8	20.8	23	44
1SV21AD021	14.5	14.5	29	13.5	13.5	27	15	15	30	2	2	2	2	2	10	10	10	10	12.5	93.18182	87.931	87.93103	93.10345	101.7241	41	25.5	25.5	27	29.5	50
1SV21AD022	14.5	14.5	29	15	15	30	13.5	13.5	27	2	2	2	2	2	8.4	8.4	8.4	8.4	10.5	89.54545	87.5862	87.58621	82.41379	89.65517	39.4	25.4	25.4	23.9	26	42
1SV21AD023	14.5	14.5	29	15	15	30	14	14	28	2	2	2	2	2	5.4	5.4	5.4	5.4	6.75	82.27273	77.2414	77.24138	73.7931	78.44828	36.4	22.4	22.4	21.4	22.75	27
1SV21AD024	14	14	28	13	13	26	15	15	30	2	2	2	2	2	7.4	7.4	7.4	7.4	9.25	85	77.2414	77.24138	84.13793	90.51724	37.4	22.4	22.4	24.4	26.25	37
1SV21AD025	15	15	30	15	15	30	15	15	30	2	2	2	2	2	10	10	10	10	12.5	95.45455	93.1034	93.10345	93.10345	101.7241	42	27	27	27	29.5	50
1SV21AD026	10.5	10.5	21	13.5	13.5	27	11.5	11.5	23	2	2	2	2	2	5.2	5.2	5.2	5.2	6.5	64.09091	71.3793	71.37931	64.48276	68.96552	28.2	20.7	20.7	18.7	20	26
1SV21AD027	15	15	30	14.5	14.5	29	13.5	13.5	27	2	2	2	2	2	8.2	8.2	8.2	8.2	10.25	91.36364	85.1724	85.17241	81.72414	88.7931	40.2	24.7	24.7	23.7	25.75	41
1SV21AD028	10	10	20	13	13	26	12	12	24	2	2	2	2	2	10	10	10	10	12.5	72.72727	86.2069	86.2069	82.75862	91.37931	32	25	25	24	26.5	50
1SV21AD029	14.5	14.5	29	15	15	30	13.5	13.5	27	2	2	2	2	2	7.8	7.8	7.8	7.8	9.75	88.18182	85.5172	85.51724	80.34483	87.06897	38.8	24.8	24.8	23.3	25.25	39
1SV21AD030	15	15	30	15	15	30	15	15	30	2	2	2	2	2	7.8	7.8	7.8	7.8	9.75	90.45455	85.5172	85.51724	85.51724	92.24138	39.8	24.8	24.8	24.8	26.75	39
1SV21AD031	14	14	28	15	15	30	15	15	30	2	2	2	2	2	6.4	6.4	6.4	6.4	8	82.72727	80.6897	80.68966	80.68966	86.2069	36.4	23.4	23.4	23.4	25	32
1SV21AD032	14.5	14.5	29	15	15	30	15	15	30	2	2	2	2	2	8.4	8.4	8.4	8.4	10.5	89.54545	87.5862	87.58621	87.58621	94.82759	39.4	25.4	25.4	25.4	27.5	42
1SV21AD033	13	13	26	13.5	13.5	27	15	15	30	2	2	2	2	2	7	7	7	7	8.75	79.54545	77.5862	77.58621	82.75862	88.7931	35	22.5	22.5	24	25.75	35
1SV21AD034	15	15	30	15	15	30	15	15	30	2	2	2	2	2	10	10	10	10	12.5	95.45455	93.1034	93.10345	93.10345	101.7241	42	27	27	27	29.5	50
1SV21AD035	14	14	28	15	15	30	14.5	14.5	29	2	2	2	2	2	10	10	10	10	12.5	90.90909	93.1034	93.10345	91.37931	100	40	27	27	26.5	29	50
1SV21AD036	15	15	30	10	10	20	10	10	20	2	2	2	2	2	8	8	8	8	10	90.90909	68.9655	68.96552	68.96552	75.86207	40	20	20	20	22	40
1SV21AD037	14	14	28	13	13	26	13.5	13.5	27	2	2	2	2	2	9	9	9	9	11.25	88.63636	82.7586	82.75862	84.48276	92.24138	39	24	24	24.5	26.75	45
1SV22AD400	14	14	28	15	15	30	13.5	13.5	27	2	2	2	2	2	10	10	10	10	12.5	90.90909	93.1034	93.10345	87.93103	96.55172	40	27	27	25.5	28	50
1SV22AD401	14.5	14.5	29	14.5	14.5	29	14	14	28	2	2	2	2	2	7.8	7.8	7.8	7.8	9.75	88.18182	83.7931	83.7931	82.06897	88.7931	38.8	24.3	24.3	23.8	25.75	39
1SV22AD402	14.5	14.5	29	15	15	30	15	15	30	2	2	2	2	2	7.8	7.8	7.8	7.8	9.75	88.18182	85.5172	85.51724	85.51724	92.24138	38.8	24.8	24.8	24.8	26.75	39
1SV22AD403	15	15	30	15	15	30	14	14	28	2	2	2	2	2	6.4	6.4	6.4	6.4	8	87.27273	80.6897	80.68966	77.24138	82.75862	38.4	23.4	23.4	22.4	24	32

	PO1	PO2	PO3	PO4	PO5	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2.59	2.59	0.86	1.72	1.72	0.86	0.86	0.86	1.72	0.86	0.86
CO2	1.65	2.48	0.82	1.65	1.65	0.82	0.82	0.82	1.65	0.82	0.82
CO3	2.2	0.82	1.65	1.65	1.65	0.82	0.82	0.82	1.65	1.65	2.48
CO4	2.45	1.63	1.65	1.63	1.63	0.81	2.48	0.81	1.63	1.65	0.82
CO5	2.48	1.63	2.48	1.63	1.63	0.81	0.82	0.81	1.63	0.81	1.63
	2.535	2.11	1.67	1.675	1.675	0.835	0.84	0.835	1.675	0.835	1.245	1.448182

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SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY
SIRA ROAD, TUMKUR- 572 106.

DEPARTMENT OF COMPUTER SCIENCE

SUBJECT	PROGRAMMING IN C++	SUBJECT CODE	21CS382

COURSE OUTCOME

CO 1. Able to understand and design the solution to a problem using object-oriented programming concepts.
CO 2. Able to reuse the code with extensible Class types, User-defined operators and function Overloading.
CO 3. Achieve code reusability and extensibility by means of Inheritance and Polymorphism
CO 4. Identify and explore the Performance analysis of I/O Streams.
CO 5. Implement the features of C++ including templates, exceptions and file handling for providing programmed solutions to complex problems.
PSO1: To Create, select, and apply appropriate techniques, resources, modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
PSO2: To manage complex IT projects with consideration of the human, financial, ethical and environmental factors and an understanding of risk management processes, and operational and policy implications.
PSO3: Acquaint module knowledge on emerging trends of the modern era in computer science and engineering.

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.
PO2 Problem analysis: Identify, formulate, research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3 Design / development of solutions:An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.
PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.
PO5 Modern tool usage:Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.
PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.
PO7 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need forsustainable development.
PO8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10 Communication: Communicate effectively on complex engineering activities with the engineering community and with the society.
PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

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PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
FACULTY NAME	Dr.CHARAN K V											
BRANCH	AI AND DS			ACADEMIC YEAR			2022-23					
COURSE	B.E	SEMESTER	III	SECTION	C							
SUBJECT	PROGRAMMING IN C++					SUBJECT CODE	21CS382					
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	1	2			2	1	1	1	2
CO2	3	1	2	1	1			1	1	1	1	2
CO3	3	2	2	1	1			2	1	1	1	2
CO4	2	2	2	1	2			1	1	1	1	2
CO5	3	2	2	1	2			2	1	1	1	2
AVERAGE	3	2	2	1	2			1	1	1	1	2
										OVERALL MAPPING OF SUBJECT		2.3

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Academic year	2022-23			SEM	III (A		Total strength							J7		Subject	Programming in C++						21CS382									
SEM-4th, SEC-C	IA TEST 1(20M)			IA TEST 2(20M)			IA TEST 3(20M)			Lab / Seminar / Activity (20)						ASSIGNEMENT / QUIZ(10 M)					SEE MARKS(50)					% of individual CO					Total CO's Attainment					SEE Tot
USN	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	Total (20)	CO1	CO2	CO3	CO4	CO5	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2=12	CO3=12	CO4=12	CO5=12	CO1=20	CO2=20	CO3=20	CO4=20	CO5=20	CO1	CO2	CO3	CO4	CO5	50M
1SV21AD001	8.5	8.5	17	4	4	8	4	4	8	20	4	4	4	4	4	2	2	2	2	2	12	12	12	10	12	206.6116	50	55.1724	40.9091	90.9091	22	16	18	40	40	40
1SV21AD002	9	9	18	8.5	8.5	17	8	8	16	20	4	4	4	4	4	2	2	2	2	2	10	10	10	12	10	160.124	45.4545	62.069	36.3636	72.4545	20	18	16	31	31	31
1SV21AD003	8.5	8.5	17	8	8	16	7	7	14	20	4	4	4	4	4	2	2	2	2	2	8	8	8	10	8	191.1157	40.9091	55.1724	31.8182	84.0909	18	16	14	37	37	37
1SV21AD004	9.5	9.5	19	4	4	8	7	7	14	20	4	4	4	4	4	2	2	2	2	2	10	10	10	8	10	134.2975	45.4545	48.2759	36.3636	59.0909	20	14	16	26	26	26
1SV21AD005	8.5	8.5	17	4	4	8	7.5	7.5	15	10	2	2	2	2	2	2	2	2	2	2	11	11	12	10	11	211.7769	40.9091	48.2759	34.0909	93.1818	18	14	15	41	41	41
1SV21AD006	4	4	8	4	4	8	4	4	8	20	4	4	4	4	4	2	2	2	2	2	10	10	10	11	10	185.9504	45.4545	58.6207	36.3636	81.8182	20	17	16	36	36	36
1SV21AD008	9	9	18	4	4	8	4	4	8	10	2	2	2	2	2	2	2	2	2	2	10	10	8	10	10	201.4463	31.8182	48.2759	31.8182	88.6364	14	14	14	39	39	39
1SV21AD009	4	4	8	4	4	8	8	8	16	10	2	2	2	2	2	2	2	2	2	2	8	8	10	10	8	305.6426	36.3636	48.2759	27.2727	134.483	16	14	12	39	39	39
1SV21AD010	8	8	16	9	9	18	8	8	16	20	4	4	4	4	4	2	2	2	2	2	10	10	11	8	10	250.7837	47.7273	48.2759	36.3636	110.345	21	14	16	32	32	32
1SV21AD011	9.5	9.5	19	9	9	18	8	8	16	10	2	2	2	2	2	2	2	2	2	2	11	11	10	10	11	329.1536	36.3636	48.2759	34.0909	144.828	16	14	15	42	40	42
1SV21AD012	8	8	16	6	6	12	8	8	16	10	2	2	2	2	2	2	2	2	2	2	12	12	10	11	12	274.2947	36.3636	51.7241	36.3636	120.69	16	15	16	35	31	35
1SV21AD013	8.5	8.5	17	8.5	8.5	17	8.5	8.5	17	20	4	4	4	4	4	2	2	2	2	2	10	10	8	12	10	180.2508	40.9091	62.069	36.3636	79.3103	18	18	16	23	37	23
1SV21AD015	4	4	8	8	8	16	4	4	8	20	4	4	4	4	4	2	2	2	2	2	11	11	10	10	11	274.2947	45.4545	55.1724	38.6364	120.69	20	16	17	35	26	35
1SV21AD016	7	7	14	4	4	8	8	8	16	10	2	2	2	2	2	2	2	2	2	2	10	10	11	11	10	313.4796	38.6364	51.7241	31.8182	137.931	17	15	14	40	41	40
1SV21AD017	9	9	18	8	8	16	8.5	8.5	17	20	4	4	4	4	4	2	2	2	2	2	11	11	12	10	11	352.6646	50	55.1724	38.6364	155.172	22	16	17	45	36	45
1SV21AD019	8	8	16	9	9	18	4	4	8	10	2	2	2	2	2	2	2	2	2	2	11	11	10	11	11	297.8056	36.3636	51.7241	34.0909	131.034	16	15	15	38	39	38
1SV21AD020	4	4	8	8	8	16	4	4	8	10	2	2	2	2	2	2	2	2	2	2	10	10	11	11	10	344.8276	38.6364	51.7241	31.8182	151.724	17	15	14	44	39	44
1SV21AD021	4	4	8	4	4	8	4	4	8	10	2	2	2	2	2	2	2	2	2	2	10	10	10	10	10	188.0878	36.3636	48.2759	31.8182	82.7586	16	14	14	24	32	24
1SV21AD022	8.5	8.5	17	9	9	18	8.5	8.5	17	10	2	2	2	2	2	2	2	2	2	2	8	8	11	10	8	329.1536	38.6364	48.2759	27.2727	144.828	17	14	12	42	32	42
1SV21AD023	8	8	16	4	4	8	8.5	8.5	17	20	4	4	4	4	4	2	2	2	2	2	10	12	11	8	10	211.5987	47.7273	48.2759	55.1724	93.1034	21	14	16	27	40	27
1SV21AD024	8.5	8.5	17	4	4	8	8	8	16	20	4	4	4	4	4	2	2	2	2	2	11	10	10	12	11	196.281	45.4545	62.069	38.6364	86.3636	20	18	17	38	31	37
1SV21AD025	4	4	8	9	9	18	8	8	16	20	4	4	4	4	4	2	2	2	2	2	12	8	10	10	12	227.2727	45.4545	55.1724	40.9091	100	20	16	18	64	37	15
1SV21AD026	4	4	8	4	4	8	8.5	8.5	17	10	2	2	2	2	2	2	2	2	2	2	10	10	8	8	10	123.9669	31.8182	41.3793	31.8182	54.5455	14	12	14	24	26	33
1SV21AD027	4	4	8	8	8	16	8	8	16	20	4	4	4	4	4	2	2	2	2	2	11	10	10	10	11	216.9421	45.4545	55.1724	38.6364	95.4545	20	16	17	42	32	47
1SV21AD028	9.5	9.5	19	8.5	8.5	17	9	9	18	10	2	2	2	2	2	2	2	2	2	2	10	11	11	11	10	139.4628	38.6364	51.7241	48.2759	61.3636	17	15	14	27	40	42
1SV21AD029	8.5	8.5	17	9.5	9.5	19	4	4	8	20	4	4	4	4	4	2	2	2	2	2	11	11	11	10	11	134.2975	47.7273	55.1724	38.6364	59.0909	21	16	17	26	31	32
1SV21AD030	8.5	8.5	17	8.5	8.5	17	7.5	7.5	15	20	4	4	4	4	4	2	2	2	2	2	11	10	10	10	11	211.7769	45.4545	55.1724	38.6364	93.1818	20	16	17	41	37	44
1SV21AD031	4	4	8	8.5	8.5	17	7.5	7.5	15	20	4	4	4	4	4	2	2	2	2	2	10	10	10	8	10	185.9504	45.4545	48.2759	36.3636	81.8182	20	14	16	36	26	24
1SV21AD032	8	8	16	8.5	8.5	17	4	4	8	20	4	4	4	4	4	2	2	2	2	2	10	8	8	10	10	201.4463	40.9091	55.1724	36.3636	88.6364	18	16	16	39	32	42
1SV21AD033	6.5	6.5	13	9	9	18	4	4	8	20	4	4	4	4	4	2	2	2	2	2	8	10	10	11	8	201.4463	45.4545	58.6207	31.8182	88.6364	20	17	14	39	40	27
1SV21AD034	4	4	8	9	9	18	8.5	8.5	17	20	4	4	4	4	4	2	2	2	2	2	10	11	11	12	10	165.2893	47.7273	62.069	36.3636	72.7273	21	18	16	32	31	37
1SV21AD035	9.5	9.5	19	8	8	16	4	4	8	10	2	2	2	2	2	2	2	2	2	2	11	12	12	10	11	216.9421	40.9091	48.2759	34.0909	95.4545	18	14	15	42	37	15
1SV21AD036	9	9	18	8	8	16	4	4	8	20	4	4	4	4	4	2	2	2	2	2	12	10	10	11	12	180.7851	45.4545	58.6207	40.9091	79.5455	20	17	18	35	26	33
1SV21AD037	9.5	9.5	19	8.5	8.5	17	4	4	8	10	2	2	2	2	2	2	2	2	2	2	10	11	11	10	10	118.8017	38.6364	48.2759	31.8182	52.2727	17	14	14	23	41	47
1SV21AD038	9	9	18	6.5	6.5	13	4	4	8	10	2	2	2	2	2	2	2	2	2	2	11	10	10	11	11	180.7851	36.3636	51.7241	34.0909	79.5455	16	15	15	35	36	42
1SV21AD039	9.5	9.5	19	4	4	8	8	8	16	20	4	4	4	4	4	2	2	2	2	2	10	11	11	11	10	206.6116	47.7273	58.6207	36.3636	90.9091	21	17	16	40	39	32
1SV21AD040	8.5	8.5	17	4	4	8	9	9	18	20	4	4	4	4	4	2	2	2	2	2	11	10	10	10	11	88.63636	45.4545	55.1724	38.6364	39	20	16	17	45	40	47
1SV22AD400	9.5	9.5	19	8.5	8.5	17	4	4	8	10	2	2	2	2	2	2	2	2	2	2	10	11	11	10	10	118.8017	38.6364	48.2759	31.8182	52.2727	17	14	14	23	41	47
1SV22AD401	9	9	18	6.5	6.5	13	4	4	8	10	2	2	2	2	2	2	2	2	2	2	11	10	10	11	11	180.7851	36.3636	51.7241	34.0909	79.5455	16	15	15	35	36	42
1SV22AD402	9.5	9.5	19	4	4	8	8	8	16	20	4	4	4	4	4	2	2	2	2	2	10	11	11	11	10	206.6116	47.7273	58.6207	36.3636	90.9091	21	17	16	40	39	32
1SV22AD403	8.5	8.5	17	4	4	8	9	9	18	20	4	4	4	4	4	2	2	2	2	2	11	10	10	10	11	88.63636	45.4545	55.1724	38.6364	39	20	16	17	45	40	47

HOD
Department of AI&DS
SIET Tumakuru

	PO1	PO2	PO3	PO4	PO5	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2.59	2.59	0.86	1.72	1.72	0.86	0.86	0.86	1.72	0.86	0.86
CO2	1.65	2.48	0.82	1.65	1.65	0.82	0.82	0.82	1.65	0.82	0.82
CO3	1.65	0.82	0.82	1.65	1.65	0.82	0.82	0.82	1.65	0.82	2.48
CO4	2.45	1.63	0.81	1.63	1.63	0.81	0.81	0.81	1.63	0.81	0.82
CO5	2.45	1.63	0.81	1.63	1.63	0.81	0.81	0.81	1.63	0.81	1.63
	2.52	2.11	0.835	1.675	1.675	0.835	0.835	0.835	1.675	0.835	1.245

1.116

Staff Incharge

HOD

PRINCIPAL
SIET. TUMKUR.

Department of Artificial Intelligence and Data Science

COURSE OUTCOME

CO 1. Explain the organization and architecture of computer systems with machine instructions and programs
CO 2. Analyze the input/output devices communicating with computer system
CO 3. Demonstrate the functions of different types of memory devices
CO 4. Apply different data types on simple arithmetic and logical unit
CO 5. Analyze the functions of basic processing unit, Parallel processing and pipelining

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.
PO2 Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3 Design / development of solutions:An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.
PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.
PO5 Modern tool usage:Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities.
PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.
PO7 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need forsustainable development.
PO8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10 Communication: Communicate effectively on complex engineering activities with the engineering community and with the society.
PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.
PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

PRINCIPAL
SIET. TUMKUR

Department of Artificial Intelligence and Data Science

COURSE OUTCOME

CO 1. Explain the organization and architecture of computer systems with machine instructions and programs
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PRINCIPAL
SIET, TUMKUR

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	MRS. KOTRAMMA MATHADA				
BRANCH	AI&DS	ACADEMIC YEAR	2022-23		
COURSE	B.E	SEMESTER	III	SECTION	C
SUBJECT	COMPUTER ORGANIZATION AND ARCHITECTURE	SUBJECT CODE	21CS34		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	1	-	-	1	-	-	-	-	-	1	3	2	2
CO2	3	3	1	-	-	-	-	-	-	-	-	1	3	2	2
CO3	3	2	2	-	-	1	-	-	-	-	-	1	3	2	3
CO4	3	3	2	-	-	-	-	-	-	-	-	1	3	2	3
CO5	3	2	1	-	-	-	-	-	-	-	-	1	3	2	3
AVERAGE	3	2.5	1.4	-	-	1	-	-	-	-	-	1.0	3.0	2.0	2.6
OVERALL MAPPING OF SUBJECT												1.98			

CO - PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12			
CO1	58.9	1.74	1.16	0.58	-	-	0.58	-	-	-	-	-	0.58	1.74	1.16	1.16
CO2	41.2	1.23	1.23	0.41	-	-	-	-	-	-	-	-	0.41	1.23	0.82	0.82
CO3	41.6	1.23	0.82	0.82	-	-	0.41	-	-	-	-	-	0.41	1.23	0.82	1.23
CO4	41.6	1.23	1.23	0.82	-	-	-	-	-	-	-	-	0.41	1.23	0.82	1.23
CO5	42.5	1.26	0.84	0.42	-	-	-	-	-	-	-	-	0.42	1.26	0.84	1.26
		1.33	1.05	0.61	-	-	0.49	-	-	-	-	-	0.44	1.33	0.89	1.14
FINAL ATTAINMENT LEVEL													0.90			

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HOD
Department of AI&DS
SIET Tumakuru

STAFF INCHARGE

IV SEM "C" SECTION(AI & DS)

Computer Orgnization and Architecture	21CS34	2022-2023	EVEN	NAME OF THE STAFF	Mrs.Kotramma Mathada

Sl No	USN	Name	IA MARKS T1 (20)	IA MARKS T2 (20)	IA MARKS T3 (20)	T1 CO1-10	T1 CO1-10	T2 CO2-10	T2 CO3-10	T3 CO4-10	T3 CO5-10	ASSIGNMENT 10/5 CO1 - 2	CO2- 2	CO3 2	CO 4-2	CO5- 2	SEMI NAR	SEMINAR 20/5 CO1 -4	CO2 4	CO3-4	CO4- 4	CO5-4	SEE (50)	SEE CO1 -10	SEE CO2 -10	SEE CO3-10	SEE CO4-10	SEE CO5-10	FINAL CO1-36	FINAL CO2-26	FINAL CO3-26	FINAL CO4-26	FINAL CO5-26	TOTAL AVERAGE
1	1SV21AD001	ARUN NKUMAR G T	10	11	11	5	5	6	5	6	5	2	2	2	2	2	14	2.8	2.8	2.8	2.8	2.8	3	0.60	0.60	0.60	0.60	0.60	15	11	10	11	10	12
2	1SV21AD002	BHARATH KUMAR P	10	11	18	5	5	6	5	9	9	2	2	2	2	2	14	2.8	2.8	2.8	2.8	2.8	27	5.40	5.40	5.40	5.40	5.40	20	16	15	19	19	18
3	1SV21AD003	BHAVANA	17	16	17	8	9	8	8	8	9	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	23	4.60	4.60	4.60	4.60	4.60	27	18	18	18	19	20
4	1SV21AD004	CHANDANA K	15	14	17	7	8	7	7	8	9	2	2	2	2	2	12	2.4	2.4	2.4	2.4	2.4	18	3.60	3.60	3.60	3.60	3.60	23	15	15	16	17	17
5	1SV21AD005	DHARSHAN C N	14	10	10	7	7	5	5	5	5	2	2	2	2	2	16	3.2	3.2	3.2	3.2	3.2	18	3.60	3.60	3.60	3.60	3.60	23	14	14	14	14	16
6	1SV21AD006	DHARSHAN G K	15	9	11	7	8	4	5	5	6	2	2	2	2	2	15	3	3	3	3	3	8	1.60	1.60	1.60	1.60	1.60	22	11	12	12	13	14
7	1SV21AD008	FAIZ AHAMED	7	7	10	3	4	3	4	5	5	2	2	2	2	2	14	2.8	2.8	2.8	2.8	2.8	6	1.20	1.20	1.20	1.20	1.20	13	9	10	11	11	11
8	1SV21AD009	FATHIMA MUSKAN	19	16	17	10	9	8	8	8	9	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	29	5.80	5.80	5.80	5.80	5.80	30	19	19	19	20	22
9	1SV21AD010	H R SUDEEP KUMAR	14	17	15	7	7	8	9	7	8	2	2	2	2	2	17	3.4	3.4	3.4	3.4	3.4	24	4.80	4.80	4.80	4.80	4.80	24	18	19	17	18	19
10	1SV21AD011	HEENA KOUSAR	12	14	9	6	6	7	7	4	5	2	2	2	2	2	12	2.4	2.4	2.4	2.4	2.4	3	0.60	0.60	0.60	0.60	0.60	17	12	12	9	10	12
11	1SV21AD012	LALITHA T M	12	18	20	6	6	10	8	10	10	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	26	5.20	5.20	5.20	5.20	5.20	23	21	19	21	21	21
12	1SV21AD013	LOKESH MURTHY T M	7	9	9	3	4	4	5	4	5	2	2	2	2	2	14	2.8	2.8	2.8	2.8	2.8	28	5.60	5.60	5.60	5.60	5.60	17	14	15	14	15	15
13	1SV21AD015	MEGHANA C N	18	18	17	9	9	9	9	8	9	2	2	2	2	2	16	3.2	3.2	3.2	3.2	3.2	30	6.00	6.00	6.00	6.00	6.00	29	20	20	19	20	22
14	1SV21AD016	MOHAMMED AMEEN TZ	10	11	9	5	5	6	5	4	5	2	2	2	2	2	15	3	3	3	3	3	18	3.60	3.60	3.60	3.60	3.60	19	15	14	13	14	15
15	1SV21AD017	MOHAMMED NOUMAN USM	9	14	10	4	5	7	7	5	5	2	2	2	2	2	15	3	3	3	3	3	25	5.00	5.00	5.00	5.00	5.00	19	17	17	15	15	17
16	1SV21AD019	MUHANNAD KHAN	9	11	9	4	5	6	5	4	5	2	2	2	2	2	15	3	3	3	3	3	22	4.40	4.40	4.40	4.40	4.40	18	15	14	13	14	15
17	1SV21AD020	MUTHAHIREEN	11	15	11	6	5	7	8	6	5	2	2	2	2	2	16	3.2	3.2	3.2	3.2	3.2	19	3.80	3.80	3.80	3.80	3.80	20	16	17	15	14	16
18	1SV21AD021	NIRANJAN K V	16	13	13	10	6	6	7	7	6	2	2	2	2	2	17	3.4	3.4	3.4	3.4	3.4	31	6.20	6.20	6.20	6.20	6.20	28	18	19	19	18	20
19	1SV21AD022	NOOR UL HUDA	12	11	20	6	6	5	6	10	10	2	2	2	2	2	17	3.4	3.4	3.4	3.4	3.4	28	5.60	5.60	5.60	5.60	5.60	23	16	17	21	21	20
20	1SV21AD023	PRADEEP N	10	7	13	5	5	4	3	6	7	2	2	2	2	2	14	2.8	2.8	2.8	2.8	2.8	13	2.60	2.60	2.60	2.60	2.60	17	11	10	13	14	13
21	1SV21AD024	PRAJWAL S	12	10	10	6	6	5	5	5	5	2	2	2	2	2	14	2.8	2.8	2.8	2.8	2.8	9	1.80	1.80	1.80	1.80	1.80	19	12	12	12	12	13
22	1SV21AD025	PRASHANTH G M	16	10	0	8	8	5	5	0	0	2	2	2	2	2	15	3	3	3	3	3	21	4.20	4.20	4.20	4.20	4.20	25	14	14	9	9	14
23	1SV21AD026	RAJNISH PRASAD	20	20	20	10	10	10	10	10	10	2	2	2	2	2	20	4	4	4	4	4	35	7.00	7.00	7.00	7.00	7.00	33	23	23	23	23	25
24	1SV21AD027	RAKSHITHA B R K	4	8	13	2	2	4	4	6	7	2	2	2	2	2	14	2.8	2.8	2.8	2.8	2.8	14	2.80	2.80	2.80	2.80	2.80	12	12	12	14	15	13
25	1SV21AD028	RAMYASHREE M	16	15	13	8	8	7	8	6	7	2	2	2	2	2	15	3	3	3	3	3	22	4.40	4.40	4.40	4.40	4.40	25	16	17	15	16	18
26	1SV21AD029	REKHA H	7	12	14	4	3	6	6	7	7	2	2	2	2	2	12	2.4	2.4	2.4	2.4	2.4	18	3.60	3.60	3.60	3.60	3.60	15	14	14	15	15	15
27	1SV21AD030	SHIFA KOUSER	13	12	13	6	7	6	6	7	6	2	2	2	2	2	15	3	3	3	3	3	23	4.60	4.60	4.60	4.60	4.60	23	16	16	17	16	17
28	1SV21AD031	SRINIDHI S H	12	8	9	6	6	4	4	4	5	2	2	2	2	2	15	3	3	3	3	3	20	4.00	4.00	4.00	4.00	4.00	21	13	13	13	14	15
29	1SV21AD032	SUHAS J K	15	10	10	7	8	5	5	5	5	2	2	2	2	2	16	3.2	3.2	3.2	3.2	3.2	13	2.60	2.60	2.60	2.60	2.60	23	13	13	13	13	15
30	1SV21AD033	SWAMY H R	11	13	13	6	5	6	7	6	7	2	2	2	2	2	16	3.2	3.2	3.2	3.2	3.2	23	4.60	4.60	4.60	4.60	4.60	21	16	17	16	17	17
31	1SV21AD034	SYEDA UROOJ FATHIMA	15	15	12	7	8	7	8	6	6	2	2	2	2	2	17	3.4	3.4	3.4	3.4	3.4	20	4.00	4.00	4.00	4.00	4.00	24	16	17	15	15	18
32	1SV21AD035	SYEEDA FATHIMUZ ZOHARA	18	17	15	9	9	8	9	7	8	2	2	2	2	2	17	3.4	3.4	3.4	3.4	3.4	22	4.40	4.40	4.40	4.40	4.40	28	18	19	17	18	20
33	1SV21AD036	ULLAS P M	5	12	10	2	3	6	6	5	5	2	2	2	2	2	15	3	3	3	3	3	21	4.20	4.20	4.20	4.20	4.20	14	15	15	14	14	15
34	1SV21AD037	VIDYASHREE A	18	16	14	9	9	8	8	7	7	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	24	4.80	4.80	4.80	4.80	4.80	28	18	18	17	17	20
35	1SV21AD038	VINAY KUMAR	19	18	19	10	9	9	9	10	9	2	2	2	2	2	20	4	4	4	4	4	21	4.20	4.20	4.20	4.20	4.20	29	19	19	20	19	21
36	1SV21AD039	VYSHNAVI P	14	13	15	7	7	6	7	7	8	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	31	6.20	6.20	6.20	6.20	6.20	26	18	19	19	20	20
37	1SV21AD040	ZEESHAN PASHA	10	4	11	5	5	2	2	6	5	2	2	2	2	2	14	2.8	2.8	2.8	2.8	2.8	11	2.20	2.20	2.20	2.20	2.20	17	9	9	13	12	12
1	1SV22AD400	GOUTHAM K M	9	7	11	4	5	3	4	5	6	2	2	2	2	2	14	2.8	2.8	2.8	2.8	2.8	18	3.60	3.60	3.60	3.60	3.60	17	11	12	13	14	14
2	1SV22AD401	SHANTHA T R	10	6	7	5	5	3	3	3	4	2	2	2	2	2	13	2.6	2.6	2.6	2.6	2.6	25	5.00	5.00	5.00	5.00	5.00	20	13	13	13	14	14
3	1SV22AD402	SRINIVASULU V	12	11	12	6	6	6	5	6	6	2	2	2	2	2	14	2.8	2.8	2.8	2.8	2.8	25	5.00	5.00	5.00	5.00	5.00	22	16	15	16	16	17
4	1SV22AD403	T M YUVA PRASAD	11	3	17	6	5	2	1	8	9	2	2	2	2	2	14	2.8	2.8	2.8	2.8	2.8	25	5.00	5.00	5.00	5.00	5.00	19	10	9	16	17	14
																													21.2	14.8	15.0	15.0	15.3	
																													58.9%	41.2%	41.6%	41.6%	42.5%	

HOD
Department of AI&DS
SIET Tumakuru

PRINCIPAL
SIET. TUMKUR.

Sri Shridevi Charitable Trust (R.)
SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY
Sira Road, Tumkur - 572 106, Karnataka, India.
Phone: 0816 - 2212629 | Principal: 0816 - 2212627, 9686114899 | Telefax: 0816 - 2212628
Email: info@shrideviengineering.org, principal@shrideviengineering.org | Website: www.shrideviengineering.org
(Approved by AICTE, New Delhi, Recognised by Govt. of Karnataka and Affiliated to Visvesvaraya Technological University, Belagavi)

ESTD: 2002

DEPARTMENT OF ARTIFICIAL INTELLGENCE AND DATA SCIENCE

EVEN SEMISTER (4^{th})

AY:2022-2023

HOD
[Dr. Girish L]

PRINCIPAL
SIET, TUMKUR.
Principal

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

2022-2023

COURSE OUTCOMES — COURSE: DESIGN AND ANALYSIS OF ALGORITHMS (21CS42)

CO1. Analyze the performance of the algorithms, state the efficiency using asymptotic notations and analyze mathematically the complexity of the algorithm.

CO2. Apply divide and conquer approaches and decrease and conquer approaches in solving the problems analyze the same

CO3. Apply the appropriate algorithmic design technique like greedy method, transform and conquer approaches and compare the efficiency of algorithms to solve the given problem.

CO4. Apply and analyze dynamic programming approaches to solve some problems. And improve an algorithm time efficiency by sacrificing space.

CO5. Apply and analyze backtracking, branch and bound methods and to describe P, NP and NP-Complete problems.

PROGRAM OUTCOMES

PO1. Engineering knowledge: An ability to apply knowledge of mathematics (including probability, Statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2. Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems Reaching substantiated conclusions using first principles of mathematics, natural sciences, and Engineering sciences.

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PO6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, Health, safety, legal, and cultural issues.

PO7. Environment and sustainability: Understand the impact of the professional engineering solutions in Societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable Development.

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PO10. Communication: Communicate effectively on complex engineering activities with the engineering Community and with the society.

PO11. Project management and finance: An ability to use the modern engineering tools, techniques, skills And management principles to do work as a member and leader in a team, to manage projects in Multidisciplinary environments.

PO12. Life-long learning: recognition of the need for, and an ability to engage in, to resolve Contemporary issues and acquire lifelong learning.

PRINCIPAL
SIET. TUMKUR.

Sri Shridevi Charitable Trust (R.)
SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY
Sira Road, Tumkur - 572 106, Karnataka, India.
Phone: 0816 - 2212629 | Principal: 0816 - 2212627, 9686114899 | Telefax: 0816 - 2212628
Email: info@shrideviengineering.org, principal@shrideviengineering.org | Website: www.shridevienginering.org
(Approved by AICTE, New Delhi, Recognised by Govt. of Karnataka and Affiliated to Visvesvaraya Technological University, Belagavi)
ESTD: 2002

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	Mrs. SHRUTHI S				
BRANCH	AIDS	ACADEMIC YEAR	2022-2023		
COURSE	B.E	SEMESTER	IV	SECTION	C
SUBJECT	DESIGN AND ANALYSIS OF ALGORITHMS	SUBJECT CODE	21CS42		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	1	1	-	-	-	-	-	-	-	2	3	2	3
CO2	3	2	3	2	-	-	-	-	-	-	-	2	3	2	2
CO3	3	2	3	2	-	-	-	-	-	-	-	2	3	3	2
CO4	3	2	3	2	-	-	-	-	-	-	-	2	3	3	2
CO5	3	2	3	2	-	-	-	-	-	-	-	2	3	2	3
AVG	3.0	2.0	2.6	1.8	-	-	-	-	-	-	-	2.0	3.0	2.4	2.4
OVERALL MAPPING OF SUBJECT												2.4			

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	61.7	1.85	1.23	0.61	0.61								1.23	1.85	1.23	1.85
CO2	72.1	2.16	1.44	2.16	1.44								1.44	2.16	1.44	1.44
CO3	72.4	2.17	1.44	2.17	1.44								1.44	2.17	2.17	1.44
CO4	76.5	2.29	1.53	2.29	1.53								1.53	2.29	2.29	1.53
CO5	77.6	2.32	1.55	2.32	1.55								1.55	2.32	1.55	2.32
AVERAGE		2.15	1.44	1.91	1.31								1.44	2.16	1.74	1.72
FINAL ATTAINMENT LEVEL													1.73			

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SUB:Data Structure & Applications			Sem:III 'C' SEC			DEPT: AI&DS				2022-23				ODD								FACULTY NAME:Mrs. Shruthi S					
Roll No.	USN	Name	21CS32			T1	T2		T3		ASSIGNMENT 10 + Practical 20					EXTERNAL						FINAL					TOTAL AVG
			T1	T2	T3	CO1-20	CO2-10	CO3-10	CO4-10	CO5-10	CO1-6	CO2-6	CO3-6	CO4-6	CO5-6	SEE (50)	CO1-10	CO2-10	CO3-10	CO4-10	CO5-10	CO1-36	CO2-26	CO3-26	CO4-26	CO5-26	
1	1SV21AD001	ARUN NKUMAR G T	3	7	6	3	4	3	3	3	6	6	6	6	6	3	1	1	1	1	1	10	11	10	10	10	6.8
2	1SV21AD002	BHARATH KUMAR P	13	0	12	13	0	0	6	6	6	6	6	6	6	21	4	4	4	4	4	23	10	10	16	16	11.4
3	1SV21AD003	BHAVANA	15	13	14	15	6	7	7	7	6	6	6	6	6	26	5	5	5	5	5	26	17	18	18	18	15.0
4	1SV21AD004	CHANDANA K	13	13	11	13	7	6	5	6	6	6	6	6	6	19	4	4	4	4	4	23	17	16	15	16	13.0
5	1SV21AD005	DHARSHAN C N	11	4	11	11	2	2	6	5	6	6	6	6	6	13	3	3	3	3	3	20	11	11	15	14	10.1
6	1SV21AD006	DHARSHAN G K	10	4	9	10	2	2	5	4	6	6	6	6	6	20	4	4	4	4	4	20	12	12	15	14	11.2
7	1SV21AD008	FAIZ AHAMED	10	9	0	10	5	4	0	0	6	6	6	6	6	13	3	3	3	3	3	19	14	13	9	9	9.8
8	1SV21AD009	FATHIMA MUSKAN	20	17	17	20	10	7	8	9	6	6	6	6	6	44	9	9	9	9	9	35	25	22	23	24	20.3
9	1SV21AD010	H R SUDEEP KUMAR	17	16	14	17	8	8	7	7	6	6	6	6	6	19	4	4	4	4	4	27	18	18	17	17	14.5
10	1SV21AD011	HEENA KOUSAR	14	1	12	14	0	1	6	6	6	6	6	6	6	2	0	0	0	0	0	20	6	7	12	12	7.9
11	1SV21AD012	LALITHA T M	18	17	14	18	10	7	7	7	6	6	6	6	6	41	8	8	8	8	8	32	24	21	21	21	19.2
12	1SV21AD013	LOKESH MURTHY T M	12	10	12	12	5	5	6	6	6	6	6	6	6	18	4	4	4	4	4	22	15	15	16	16	12.3
13	1SV21AD015	MEGHANA C N	18	14	14	18	7	7	7	7	6	6	6	6	6	23	5	5	5	5	5	29	18	18	18	18	15.1
14	1SV21AD016	MOHAMMED AMEEN TZ	15	14	9	15	7	7	4	5	6	6	6	6	6	18	4	4	4	4	4	25	17	17	14	15	13.1
15	1SV21AD017	MOHAMMED NOUMAN USMANI	5	12	17	5	6	6	8	9	6	6	6	6	6	26	5	5	5	5	5	16	17	17	19	20	13.4
16	1SV21AD019	MUHANNAD KHAN	13	9	9	13	4	5	5	4	6	6	6	6	6	18	4	4	4	4	4	23	14	15	15	14	12.1
17	1SV21AD020	MUTHAHIREEN	8	10	17	8	5	5	9	8	6	6	6	6	6	12	2	2	2	2	2	16	13	13	17	16	10.9
18	1SV21AD021	NIRANJAN K V	11	13	13	11	6	7	6	7	6	6	6	6	6	18	4	4	4	4	4	21	16	17	16	17	12.6
19	1SV21AD022	NOOR UL HUDA	20	17	15	20	10	7	8	7	6	6	6	6	6	22	4	4	4	4	4	30	20	17	18	17	15.9
20	1SV21AD023	PRADEEP N	9	4	0	9	2	2	2	2	6	6	6	6	6	0	0	0	0	0	0	15	8	8	8	8	6.5
21	1SV21AD024	PRAJWAL S	0	9	9	0	5	4	5	4	6	6	6	6	6	11	2	2	2	2	2	8	13	12	13	12	8.5
22	1SV21AD025	PRASHANTH G M	18	4	17	18	2	2	2	2	6	6	6	6	6	14	3	3	3	3	3	27	11	11	11	11	10.8
23	1SV21AD026	RAJNISH PRASAD	20	20	18	20	10	10	10	10	6	6	6	6	6	29	6	6	6	6	6	32	22	22	22	22	18.1
24	1SV21AD027	RAKSHITHA B R K	6	1	9	6	0	1	0	1	6	6	6	6	6	34	7	7	7	7	7	19	13	14	13	14	12.0
25	1SV21AD028	RAMYASHREE M	13	12	13	13	6	6	6	6	6	6	6	6	6	8	2	2	2	2	2	21	14	14	14	14	10.8
26	1SV21AD029	REKHA H	6	4	11	6	2	2	2	2	6	6	6	6	6	7	1	1	1	1	1	13	9	9	9	9	7.4
27	1SV21AD030	SHIFA KOUSER	11	12	10	11	6	6	6	6	6	6	6	6	6	13	3	3	3	3	3	20	15	15	15	15	11.4
28	1SV21AD031	SRINIDHI S H	7	9	10	7	4	5	4	5	6	6	6	6	6	29	6	6	6	6	6	19	16	17	16	17	13.1
29	1SV21AD032	SUHAS J K	20	17	14	20	10	7	10	7	6	6	6	6	6	10	2	2	2	2	2	28	18	15	18	15	13.8
30	1SV21AD033	SWAMY H R	7	13	12	7	6	7	6	7	6	6	6	6	6	28	6	6	6	6	6	19	18	19	18	19	13.9
31	1SV21AD034	SYEDA UROOJ FATHIMA	15	15	13	15	7	8	7	8	6	6	6	6	6	21	4	4	4	4	4	25	17	18	17	18	14.4
32	1SV21AD035	SYEEDA FATHIMUZ ZOHARA	12	20	16	12	10	10	10	10	6	6	6	6	6	28	6	6	6	6	6	24	22	22	22	22	16.6
33	1SV21AD036	ULLAS P M	11	6	12	11	3	3	3	3	6	6	6	6	6	13	3	3	3	3	3	20	12	12	12	12	9.9
34	1SV21AD037	VIDYASHREE A	20	12	13	20	6	6	6	6	6	6	6	6	6	18	4	4	4	4	4	30	16	16	16	16	13.9
35	1SV21AD038	VINAY KUMAR	20	18	19	20	10	8	10	8	6	6	6	6	6	29	6	6	6	6	6	32	22	20	22	20	17.8
36	1SV21AD039	VYSHNAVI P	17	13	17	17	6	7	6	7	6	6	6	6	6	27	5	5	5	5	5	28	17	18	17	18	15.4
37	1SV21AD040	ZEESHAN PASHA	8	5	13	8	2	3	2	3	6	6	6	6	6	0	0	0	0	0	0	14	8	9	8	9	6.5
38	1SV22AD400	GOUTHAM K M	12	14	8	12	7	7	4	4	5	5	5	6	6	10	2	2	2	2	2	19	14	14	12	12	14.8
39	1SV22AD401	SHANTHA T R	11	15	18	11	7	8	10	8	5	5	5	5	6	9	2	1.8	1.8	1.8	1.8	18	14	15	17	16	15.8
40	1SV22AD402	SRINIVASULU V	7	6	14	7	3	3	7	7	5	5	4	5	5	11	2	2.2	2.2	2.2	2.2	14	10	9	14	14	12.0
41	1SV22AD403	T M YUVA PRASAD	14	12	12	14	6	6	6	6	6	5	5	5	5	10	2	2	2	2	2	22	13	13	13	13	15.3
																						21.9512	14.9512	14.7561	15.2927	15.2683	
																						61.0%	57.5%	56.8%	58.8%	58.7%	

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Department of Artificial Intelligence and Data Science

COURSE OUTCOME

CO 1. Identify the structure of an operating system and its scheduling mechanism.
CO 2. Demonstrate the allocation of resources for a process using scheduling algorithm.
CO 3. Identify root causes of deadlock and provide the solution for deadlock elimination
CO 4. Explore about the storage structures and learn about the Linux Operating system.
CO 5. Analyze Storage Structures and Implement Customized Case study

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.
PO2 Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3 Design / development of solutions:An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.
PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.
PO5 Modern tool usage:Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities.
PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.
PO7 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need forsustainable development.
PO8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10 Communication: Communicate effectively on complex engineering activities with the engineering community and with the society.
PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.
PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

PRINCIPAL
SIET, TUMKUR.

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	MRS. KOTRAMMA MATHADA				
BRANCH	AI&DS	ACADEMIC YEAR	2022-23		
COURSE	B.E	SEMESTER	IV	SECTION	C
SUBJECT	OPERATING SYSTEMS	SUBJECT CODE	21CS44		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	1	-	-	1	-	-	-	-	-	1	3	2	2
CO2	3	3	2	-	-	-	-	-	-	-	-	1	3	2	2
CO3	2	2	1	-	-	1	-	-	-	-	-	1	3	2	2
CO4	3	2	2	-	-	-	-	-	-	-	-	1	3	2	3
CO5	2	2	1	-	-	-	-	-	-	-	-	2	3	2	3
AVERAGE	2.6	2.2	1.4	-	-	0.5	-	-	-	-	-	1.2	3	2	2.4
OVERALL MAPPING OF SUBJECT												1.91			

CO - PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12			
CO1	70.7	2.1	1.4	0.70	-	-	0.70	-	-	-	-	-	0.70	2.1	1.4	1.4
CO2	75.2	2.2	2.2	1.5	-	-	-	-	-	-	-	-	0.75	2.2	1.5	1.5
CO3	76.0	1.5	1.5	0.76	-	-	0.70	-	-	-	-	-	0.76	2.2	1.5	1.5
CO4	76.2	2.2	1.5	1.5	-	-	-	-	-	-	-	-	0.76	2.2	1.5	2.2
CO5	76.1	1.5	1.5	0.76	-	-	-	-	-	-	-	-	1.5	2.2	1.5	2.2
AVERAGE	1.9	1.6	1.0	-	-	0.70	-	-	-	-	-	0.89	2.1	1.4	1.7	
FINAL ATTAINMENT LEVEL												1.4				

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STAFF INCHARGE

IV SEM "C" SECTION(AI & DS)

Operating System			21CS44-OS			2022-2023		EVEN		NAME OF THE STAFF						Mrs.KOTRAMMA.MATHADA																
			IA MARKS			T1		T2		T3		ASSIGNMENT 10/5				seminar (20)						SEE						FINAL					TOTAL AVERAGE
Sl No.	USN	Name	T1 (30)	T2 (30)	T3 (30)	CO1 -10	CO1 - 10	CO2 - 10	CO3 - 10	CO4 10	CO5 - 10	CO1 - 2	CO2 - 2	CO3 - 2	CO4 2	CO5 - 2	SEMINAR	CO1- 4	CO2- 4	CO3-4	CO4- 4	CO5- 4	SEE(50)	CO1- 10	CO2- 10	CO3- 10	CO4- 10	CO5-10	CO1-26	CO2-26	CO3-26	CO4-26	CO5-26	
1	1SV21AD001	ARUN NKUMAR G T	10	13	12	5	5	6	7	6	6	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	31	6.20	9.33	9.33	9.33	9.33	22	26	28	28	27	26
2	1SV21AD002	BHARATH KUMAR P	16	15	17	8	8	8	7	8	9	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	24	6.20	7.83	7.83	7.83	7.83	28	29	28	28	30	29
3	1SV21AD003	BHAVANA	18	18	17	9	9	9	9	8	9	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	35	4.80	6.33	6.33	6.33	6.33	28	30	30	29	29	29
4	1SV21AD004	CHANDANA K	14	14	12	7	7	7	7	6	6	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	20	7.00	6.67	6.67	6.67	6.67	27	26	26	25	24	26
5	1SV21AD005	DHARSHAN C N	10	13	12	5	5	6	7	6	6	2	2	2	2	2	19	3.8	3.8	3.8	3.8	3.8	20	4.00	7.33	7.33	7.33	7.33	20	24	26	26	25	24
6	1SV21AD006	DHARSHAN G K	10	12	9	5	5	6	6	5	4	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	29	4.00	5.50	5.50	5.50	5.50	20	22	23	22	20	21
7	1SV21AD008	FAIZ AHAMED	10	14	13	5	5	7	7	6	7	2	2	2	2	2	16	3.2	3.2	3.2	3.2	3.2	19	5.80	8.83	8.83	8.83	8.83	21	26	28	27	27	26
8	1SV21AD009	FATHIMA MUSKAN	17	17	18	8	9	8	9	9	9	2	2	2	2	2	19	3.8	3.8	3.8	3.8	3.8	32	3.80	3.83	3.83	3.83	3.83	27	27	27	28	28	27
9	1SV21AD010	H R SUDEEP KUMAR	18	17	15	9	9	8	9	7	8	2	2	2	2	2	19	3.8	3.8	3.8	3.8	3.8	39	6.40	3.83	3.83	3.83	3.83	30	27	27	26	25	27
10	1SV21AD011	HEENA KOUSAR	8	13	12	4	4	6	7	6	6	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	18	7.80	7.33	7.33	7.33	7.33	21	23	26	26	25	24
11	1SV21AD012	LALITHA T M	17	18	17	8	9	9	9	8	9	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	25	3.60	0.00	0.00	0.00	0.00	26	24	24	23	23	24
12	1SV21AD013	LOKESH MURTHY T M	13	15	14	6	7	7	8	7	7	2	2	2	2	2	17	3.4	3.4	3.4	3.4	3.4	23	5.00	7.83	7.83	7.83	7.83	23	27	28	28	27	27
13	1SV21AD015	MEGHANA C N	19	18	16	9	10	9	9	8	8	2	2	2	2	2	19	3.8	3.8	3.8	3.8	3.8	25	4.60	7.83	7.83	7.83	7.83	29	33	32	31	30	31
14	1SV21AD016	MOHAMMED AMEEN TZ	17	17	18	8	9	8	9	9	9	2	2	2	2	2	19	3.8	3.8	3.8	3.8	3.8	18	5.00	7.83	7.83	7.83	7.83	28	31	31	32	32	30
15	1SV21AD017	MOHAMMED NOUMAN	10	14	16	5	5	7	7	8	8	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	21	3.60	6.33	6.33	6.33	6.33	19	24	26	27	28	25
16	1SV21AD019	MUHANNAD KHAN	12	16	15	6	6	8	8	7	8	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	28	4.20	6.50	6.50	6.50	6.50	22	26	28	27	27	26
17	1SV21AD020	MUTHAHIREEN	18	18	16	9	9	9	9	8	8	2	2	2	2	2	16	3.2	3.2	3.2	3.2	3.2	35	5.60	7.83	7.83	7.83	7.83	29	31	31	30	29	30
18	1SV21AD021	NIRANJAN K V	19	20	19	9	10	10	10	9	10	2	2	2	2	2	19	3.8	3.8	3.8	3.8	3.8	40	7.00	6.50	6.50	6.50	6.50	32	32	32	31	31	32
19	1SV21AD022	NOOR UL HUDA	17	18	17	9	8	9	9	9	8	2	2	2	2	2	19	3.8	3.8	3.8	3.8	3.8	32	8.00	7.50	7.50	7.50	7.50	31	30	31	31	30	31
20	1SV21AD023	PRADEEP N	12	14	12	6	6	7	7	6	6	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	18	6.40	6.67	6.67	6.67	6.67	24	25	26	25	24	25
21	1SV21AD024	PRAJWAL S	15	15	16	7	8	7	8	8	8	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	18	3.60	6.83	6.83	6.83	6.83	24	27	27	28	28	27
22	1SV21AD025	PRASHANTH G M	13	14	16	6	7	7	7	8	8	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	25	3.60	6.83	6.83	6.83	6.83	22	26	26	27	28	26
23	1SV21AD026	RAJNISH PRASAD	20	19	19	10	10	9	10	9	10	2	2	2	2	2	19	3.8	3.8	3.8	3.8	3.8	39	5.00	6.50	6.50	6.50	6.50	31	31	31	31	31	31
24	1SV21AD027	RAKSHITHA B R K	15	11	14	7	8	5	6	7	7	2	2	2	2	2	16	3.2	3.2	3.2	3.2	3.2	20	7.80	8.00	8.00	8.00	8.00	28	26	24	26	27	26
25	1SV21AD028	RAMYASHREE M	13	17	16	6	7	8	9	8	8	2	2	2	2	2	15	3	3	3	3	3	20	4.00	5.00	5.00	5.00	5.00	22	25	27	27	26	25
26	1SV21AD029	REKHA H	15	15	17	7	8	7	8	8	9	2	2	2	2	2	15	3	3	3	3	3	34	4.00	7.33	7.33	7.33	7.33	24	27	27	28	29	27
27	1SV21AD030	SHIFA KOUSER	11	15	14	5	6	7	8	7	7	2	2	2	2	2	16	3.2	3.2	3.2	3.2	3.2	32	6.80	8.83	8.83	8.83	8.83	23	27	29	29	28	27
28	1SV21AD031	SRINIDHI S H	14	15	11	7	7	7	8	5	6	2	2	2	2	2	17	3.4	3.4	3.4	3.4	3.4	21	6.40	6.00	6.00	6.00	6.00	26	25	26	24	22	25
29	1SV21AD032	SUHAS J K	14	15	14	7	7	7	8	7	7	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	0	4.20	7.50	7.50	7.50	7.50	24	27	28	28	27	27
30	1SV21AD033	SWAMY H R	15	13	17	7	8	6	7	8	9	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	26	0.00	5.00	5.00	5.00	5.00	21	25	24	26	28	24
31	1SV21AD034	SYEDA UROOJ FATHIMA	17	16	16	8	9	8	8	8	8	2	2	2	2	2	18	3.6	3.6	3.6	3.6	3.6	30	5.20	6.00	6.00	6.00	6.00	28	29	28	28	28	28
32	1SV21AD035	SYEEDA FATHIMUZ ZOHA	17	18	17	8	9	9	9	8	9	2	2	2	2	2	19	3.8	3.8	3.8	3.8	3.8	21	6.00	6.50	6.50	6.50	6.50	29	30	30	29	29	30
33	1SV21AD036	ULLAS P M	11	5	15	6	5	2	3	7	8	2	2	2	2	2	17	3.4	3.4	3.4	3.4	3.4	18	4.20	6.67	6.67	6.67	6.67	21	19	17	22	27	21
34	1SV21AD037	VIDYASHREE A	18	19	18	9	9	9	10	9	9	2	2	2	2	2	19	3.8	3.8	3.8	3.8	3.8	33	3.60	6.83	6.83	6.83	6.83	27	31	32	32	31	30
35	1SV21AD038	VINAY KUMAR	17	18	20	8	9	9	9	10	10	2	2	2	2	2	20	4	4	4	4	4	31	6.60	5.33	5.33	5.33	5.33	30	29	29	30	31	30
36	1SV21AD039	VYSHNAVI P	17	18	19	8	9	9	9	9	10	2	2	2	2	2	19	3.8	3.8	3.8	3.8	3.8	32	6.20	7.00	7.00	7.00	7.00	29	31	31	31	32	31
37	1SV21AD040	ZEESHAN PASHA	15	7	8	7	8	3	4	4	4	2	2	2	2	2	17	3.4	3.4	3.4	3.4	3.4	31	6.40	7.17	7.17	7.17	7.17	27	24	20	21	21	22
1	1SV22AD400	GOUTHAM K M	16	15	16	8	8	7	8	8	8	2	2	2	2	2	19	3.8	3.8	3.8	3.8	3.8	19	6.20	5.83	5.83	5.83	5.83	28	27	27	28	28	27
2	1SV22AD401	SHANTHA T R	13	14	13	6	7	7	7	6	7	2	2	2	2	2	19	3.8	3.8	3.8	3.8	3.8	29	3.80	5.50	5.50	5.50	5.50	23	25	25	24	24	24
3	1SV22AD402	SRINIVASULU V	15	12	14	7	8	6	6	7	7	2	2	2	2	2	19	3.8	3.8	3.8	3.8	3.8	25	5.80	7.33	7.33	7.33	7.33	27	27	25	26	27	26
4	1SV22AD403	T M YUVA PRASAD	14	15	15	7	7	7	8	7	8	2	2	2	2	2	19	3.8	3.8	3.8	3.8	3.8	25	5.00	8.33	8.33	8.33	8.33	25	28	29	29	29	28
																													25.4	27.1	27.4	27.4	27.4	
																													70.7%	75.2%	76.0%	76.2%	76.1%	

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DEPARTMET OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

COURSE OUTCOME

CO1. Explain C-Compilers and optimization
CO2. Describe the ARM microcontroller's architectural features and program module.
CO3. Apply the knowledge gained from programming on ARM to different applications.
CO4. Program the basic hardware components and their application selection method.
CO5. Demonstrate the need for a real-time operating system for embedded system application.

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.
PO2 Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3 Design / development of solutions:An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.
PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.
PO5 Modern tool usage:Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities.
PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.
PO7 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need forsustainable development.
PO8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10 Communication: Communicate effectively on complex engineering activities with the engineering community and with the society.
PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.
PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

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COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	MRS. PRATHIBHA T S				
BRANCH	AI&DS	ACADEMIC YEAR	2022-23		
COURSE	B.E	SEMESTER	IV	SECTION	C
SUBJECT	MICROCONTROLLER AND EMBEDDED SYSTEMS		SUBJECT CODE	21CS43	

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1					1							1	1	1	
CO2			2												
CO3	2									1		2	1	1	
CO4	2									2		1	1	1	
CO5	1									1		1			
AVERAGE	1.66		2		1					1.33		1.66	1	1	
OVERALL MAPPING OF SUBJECT												1.37			

CO - PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	68.2					0.68							0.68		0.68	
CO2	69.9			1.39												
CO3	68.3	1.36									0.68			0.68	0.68	
CO4	72.5	1.45									1.45		0.72	0.72	0.72	
CO5	70.4	0.70									0.70		0.70			
		1.17		1.39		0.68					0.94		0.7	0.7	0.6	
FINAL ATTAINMENT LEVEL													1.08			

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ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

SUB:Microcontroller and Embedded System			Sem: IV 'C' SEC							2022-23					EVEN	FACULTY NAME: MRS. PRATHIBHA T S											
Roll No.	USN	NAME	21CS43			T1	T2		T3	ASSIGNMENT 10 + Practical 20					EXTERNAL						FINAL					TOTAL AVG
			T1	T2	T3	CO1-20	CO2-10	CO3-10	CO4-10	CO5-10	CO1-6	CO2-6	CO3-6	CO4-6	CO5-6	SEE (50)	CO1-10	CO2-10	CO3-10	CO4-10	CO5-10	CO1-36	CO2-26	CO3-26	CO4-26	CO5-26	
1	1SV21AD001	ARUN KUMAR G T	6	13	13	6	6	7	6	7	6	6	6	6	6	13	3	3	3	3	3	15	15	16	15	16	15
2	1SV21AD002	BHARATH KUMAR P	19	18	19	19	8	10	10	9	6	6	6	6	6	39	8	8	8	8	8	33	22	24	24	23	25
3	1SV21AD003	BHAVANA C	19	19	19	19	10	9	10	9	6	6	6	6	6	29	6	6	6	6	6	31	22	21	22	21	23
4	1SV21AD004	CHANDANA K	14	18	19	14	10	8	10	9	6	6	6	6	6	10	2	2	2	2	2	22	18	16	18	17	18
5	1SV21AD005	DARSHAN C N	10	14	11	10	7	7	6	5	6	6	6	6	6	22	4	4	4	4	4	20	17	17	16	15	17
6	1SV21AD006	DARSHAN G K	11	12	11	11	6	6	5	6	6	6	6	6	6	8	2	2	2	2	2	19	14	14	13	14	14
7	1SV21AD008	FAIZ AHMED	10	0	15	10	0	0	8	7	4	4	4	4	4	8	2	2	2	2	2	16	6	6	14	13	11
8	1SV21AD009	FATHIMA MUSKAN	20	20	20	20	10	10	10	10	6	5	6	6	6	48	10	10	10	10	10	36	25	26	26	26	27
9	1SV21AD010	H R SUDEEP KUMAR	18	0	19	18	0	0	10	9	6	6	6	6	6	34	7	7	7	7	7	31	13	13	23	22	20
10	1SV21AD011	HEENA KOUSAR	6	7	9	6	4	3	4	5	6	6	6	6	6	18	4	4	4	4	4	16	14	13	14	15	14
11	1SV21AD012	LALITHA TM	19	20	20	19	10	10	10	10	6	6	6	6	6	33	7	7	7	7	7	32	23	23	23	23	24
12	1SV21AD013	LOKESH MURTHY V M	14	13	18	14	6	7	10	8	6	6	6	6	6	19	4	4	4	4	4	24	16	17	20	18	19
13	1SV21AD015	MEGHANA C N	15	20	18	15	10	10	10	8	6	6	6	6	6	39	8	8	8	8	8	29	24	24	24	22	24
14	1SV21AD016	MOHAMMED AMEEN T Z	13	10	18	13	5	5	10	8	6	6	6	6	6	22	4	4	4	4	4	23	15	15	20	18	19
15	1SV21AD017	MOHAMMED NOUMAN USMANI	12	13	18	12	7	6	10	8	5	6	5	6	5	18	4	4	4	4	4	21	17	15	20	17	18
16	1SV21AD019	MUHANNAD KHAN	13	10	19	13	5	5	10	9	6	6	6	6	6	18	4	4	4	4	4	23	15	15	20	19	18
17	1SV21AD020	MUTHAHIREEN	15	17	15	15	10	7	7	8	6	6	5	6	5	34	7	7	7	7	7	28	23	19	20	20	22
18	1SV21AD021	NIRANJAN K V	20	19	20	20	10	9	10	10	6	6	6	6	6	21	4	4	4	4	4	30	20	19	20	20	22
19	1SV21AD022	NOOR UL HUDA	19	17	18	19	10	7	10	8	6	6	6	6	6	35	7	7	7	7	7	32	23	20	23	21	24
20	1SV21AD023	PRADEEP N	13	14	17	13	7	7	10	7	2	2	2	2	2	24	5	5	5	5	5	20	14	14	17	14	16
21	1SV21AD024	PRAJWAL S	0	20	20	0	10	10	10	10	2	2	2	2	2	18	4	4	4	4	4	6	16	16	16	16	14
22	1SV21AD025	PRASHANTH G M	15	18	15	15	10	8	7	8	6	6	6	6	6	21	4	4	4	4	4	25	20	18	17	18	20
23	1SV21AD026	RAJNISH PRASAD KALWAR	18	20	20	18	10	10	10	10	6	6	6	6	6	31	6	6	6	6	6	30	22	22	22	22	24
24	1SV21AD027	RAKSHITH BRK	13	13	15	13	6	7	8	7	6	6	6	6	6	5	1	1	1	1	1	20	13	14	15	14	15
25	1SV21AD028	RAMYASHREE M	18	14	15	18	7	7	7	8	6	6	6	6	6	19	4	4	4	4	4	28	17	17	17	18	19
26	1SV21AD029	REKHA H	18	18	16	18	10	8	8	8	5	6	6	6	5	23	5	5	5	5	5	28	21	19	19	18	21
27	1SV21AD030	SHIFA KOUSER	15	19	13	15	10	9	6	7	5	6	6	5	6	19	4	4	4	4	4	24	20	19	15	17	19
28	1SV21AD031	SRINIDHI SH	14	18	11	14	10	8	6	5	3	4	3	5	3	23	5	5	5	5	5	22	19	16	16	13	17
29	1SV21AD032	SUHAS J K	18	15	0	18	7	8	0	0	6	4	5	4	5	0	0	0	0	0	0	24	11	13	4	5	11
30	1SV21AD033	SWAMY H R	9	16	14	9	8	8	7	7	6	6	6	6	6	26	5	5	5	5	5	20	19	19	18	18	19
31	1SV21AD034	SYEDA UROOJ FATHIMA	15	19	15	15	10	9	7	8	6	6	6	6	6	22	4	4	4	4	4	24	20	19	17	18	20

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Roll No.	USN	NAME	21CS43			T1		T2		T3		ASSIGNMENT 10 + Practical 20					EXTERNAL						FINAL					TOTAL AVG
			T1	T2	T3	CO1-20	CO2-10	CO3-10	CO4-10	CO5-10	CO1-6	CO2-6	CO3-6	CO4-6	CO5-6	SEE (50)	CO1-10	CO2-10	CO3-10	CO4-10	CO5-10	CO1-36	CO2-26	CO3-26	CO4-26	CO5-26	
32	1SV21AD035	SYEEDA FATHIMUZ ZOHARA	18	16	18	18	8	8	10	8	6	6	6	6	6	23	5	5	5	5	5	29	19	19	21	19	21
33	1SV21AD036	ULLAS P M	0	9	19	0	5	4	10	9	4	4	4	3	5	28	6	6	6	6	6	10	15	14	19	20	15
34	1SV21AD037	VIDYA SHREE A	16	20	20	16	10	10	10	10	6	6	6	6	6	38	8	8	8	8	8	30	24	24	24	24	25
35	1SV21AD038	VINAY KUMAR	19	20	20	19	10	10	10	10	6	6	6	6	6	22	4	4	4	4	4	29	20	20	20	20	22
36	1SV21AD039	VYSHNAVI P	20	18	20	20	10	8	10	10	6	6	6	6	6	37	7	7	7	7	7	33	23	21	23	23	25
37	1SV21AD040	ZEESHAN PASHA	6	10	18	6	5	5	10	8	4	4	4	3	5	35	7	7	7	7	7	17	16	16	20	20	18
38	1SV22AD400	GOWTHAM K M	18	14	18	18	7	7	10	8	6	6	6	6	6	26	5	5	5	5	5	29	18	18	21	19	21
39	1SV22AD401	SHANTHA T R	14	13	16	14	6	7	8	8	6	6	6	6	6	33	7	7	7	7	7	27	19	20	21	21	21
40	1SV22AD400	SRINIVASALU V	14	20	17	14	10	10	10	7	6	6	6	6	6	31	6	6	6	6	6	26	22	22	22	19	22
41	1SV22AD400	T M YUVAPRASAD	17	16	14	17	8	8	7	7	6	6	6	6	6	28	6	6	6	6	6	29	20	20	19	19	21
																						24.6	18.2	17.8	18.9	18.3	
																						68.2%	69.9%	68.3%	72.5%	70.4%	

Department of Artificial Intelligence and Data science

COURSE OUTCOME

CO1. Holistic vision of life
CO2. Socially responsible behaviour
CO3. Environmentally responsible work
CO4. Ethical human conduct
CO5. Having Competence and Capabilities for Maintaining Health and Hygiene
CO6. Appreciation and aspiration for excellence (merit) and gratitude for all

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.
PO2 Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3 Design / development of solutions:An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.
PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.
PO5 Modern tool usage:Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities.
PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.
PO7 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need forsustainable development.
PO8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10 Communication: Communicate effectively on complex engineering activities with the engineering community and with the society.
PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.
PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

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COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	Dr. Charan K V				
BRANCH	AI & DS	ACADEMIC YEAR	2022-23		
COURSE	B.E	SEMESTER	IV	SECTION	C
SUBJECT	UNIVERSAL HUMAN VALUES	SUBJECT CODE	21UHV49		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1		1										3	1	2	1
CO2							1						1		
CO3						2							2	1	
CO4								3				1	1		2
CO5							2					1	1		1
CO6	1	1		1				1					2	1	
AVERAGE	1	1		1		2	1.5	2				1.6	1.3	1.3	1.3
OVERALL MAPPING OF SUBJECT												1.4			

CO - PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	73.5		0.73										2.20	0.73	1.47	0.73
CO2	72.5								0.72					0.72		
CO3	73.7						1.47							1.47	0.73	
CO4	68.2								2.04				0.68	0.68		1.36
CO5	64							1.28					0.64	0.64		0.64
CO6	63.3	0.63	0.63		0.63				0.63					1.26	0.63	
AVERAGE		0.63	0.68		0.63		1.47	1.28	1.13				1.17	0.91	0.94	0.91
FINAL ATTAINMENT LEVEL													0.97			

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SUB: UHV		Sem:IV			DEPT: AI & DS						2022-23					EVEN	FACULTY NAME: Dr. Charan K V													
Roll No.	USN	21UH49			T1		T2		T3		ASSIGNMENT 10 + Quiz 20						EXTERNAL							FINAL						TOTAL AVG
		T1	T2	T3	CO1-10	CO2-10	CO3-10	CO4-10	CO5-10	CO6-10	CO1-5	CO2-5	CO3-5	CO4-5	CO5-5	CO6-5	SEE (50)	CO1-12	CO2-12	CO3-12	CO4-12	CO5-12	CO6-12	CO1-27	CO2-27	CO3-27	CO4-27	CO5-27	CO6-27	
1	1SV21AD001	20	17	15	10	10	8	9	7	8	5	5	5	3	3	3	38	6.3	6.3	6.3	6.3	6.3	6.3	21.3	21.3	19.3	18.3	16.3	17.3	19.0
2	1SV21AD002	20	17	13	10	10	8	9	6	7	4	5	5	5	5	5	32	5.3	5.3	5.3	5.3	5.3	5.3	19.3	20.3	18.3	19.3	16.3	17.3	18.5
3	1SV21AD003	20	17	13	10	10	8	9	7	6	5	5	5	5	5	5	35	5.8	5.8	5.8	5.8	5.8	5.8	20.8	20.8	18.8	19.8	17.8	16.8	19.2
4	1SV21AD004	20	19	16	10	10	10	9	8	8	5	5	5	5	5	5	30	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	20.0	19.0	18.0	18.0	19.2
5	1SV21AD005	20	17	13	10	10	10	7	6	7	5	5	5	5	5	5	28	4.7	4.7	4.7	4.7	4.7	4.7	19.7	19.7	19.7	16.7	15.7	16.7	18.0
6	1SV21AD006	20	17	12	10	10	10	7	6	6	5	5	5	5	5	3	34	5.7	5.7	5.7	5.7	5.7	5.7	20.7	20.7	20.7	17.7	16.7	14.7	18.5
7	1SV21AD008	20	18	13	10	10	10	8	6	7	5	5	5	5	5	5	34	5.7	5.7	5.7	5.7	5.7	5.7	20.7	20.7	20.7	18.7	16.7	17.7	19.2
8	1SV21AD009	20	17	10	10	10	10	7	5	5	4	5	5	5	5	5	28	4.7	4.7	4.7	4.7	4.7	4.7	18.7	19.7	19.7	16.7	14.7	14.7	17.3
9	1SV21AD010	19	18	13	10	9	10	8	6	7	5	5	5	5	5	5	34	5.7	5.7	5.7	5.7	5.7	5.7	20.7	19.7	20.7	18.7	16.7	17.7	19.0
10	1SV21AD011	19	17	12	10	9	10	7	6	6	4	5	5	5	5	5	32	5.3	5.3	5.3	5.3	5.3	5.3	19.3	19.3	20.3	17.3	16.3	16.3	18.2
11	1SV21AD012	19	16	13	10	9	8	8	6	7	5	5	5	5	5	4	34	5.7	5.7	5.7	5.7	5.7	5.7	20.7	19.7	18.7	18.7	16.7	16.7	18.5
12	1SV21AD013	16	18	13	8	8	10	8	7	6	5	5	5	5	5	5	31	5.2	5.2	5.2	5.2	5.2	5.2	18.2	18.2	20.2	18.2	17.2	16.2	18.0
13	1SV21AD015	16	10	12	8	8	5	5	6	6	4	5	5	5	5	5	30	5.0	5.0	5.0	5.0	5.0	5.0	17.0	18.0	15.0	15.0	16.0	16.0	16.2
14	1SV21AD016	20	19	14	10	10	10	9	7	7	5	5	5	5	5	5	38	6.3	6.3	6.3	6.3	6.3	6.3	21.3	21.3	21.3	20.3	18.3	18.3	20.2
15	1SV21AD017	20	18	13	10	10	10	8	7	6	3	4	5	5	5	5	38	6.3	6.3	6.3	6.3	6.3	6.3	19.3	20.3	21.3	19.3	18.3	17.3	19.3
16	1SV21AD019	18	17	15	10	8	10	7	7	8	5	5	5	5	5	5	37	6.2	6.2	6.2	6.2	6.2	6.2	21.2	19.2	21.2	18.2	18.2	19.2	19.5
17	1SV21AD020	20	19	13	10	10	10	9	6	7	5	5	5	5	5	5	25	4.2	4.2	4.2	4.2	4.2	4.2	19.2	19.2	19.2	18.2	15.2	16.2	17.8
18	1SV21AD021	18	17	12	10	8	8	9	6	6	3	3	5	5	5	5	30	5.0	5.0	5.0	5.0	5.0	5.0	18.0	16.0	18.0	19.0	16.0	16.0	17.2
19	1SV21AD022	20	18	15	10	10	10	8	7	8	3	3	5	5	5	5	35	5.8	5.8	5.8	5.8	5.8	5.8	18.8	18.8	20.8	18.8	17.8	18.8	19.0
20	1SV21AD023	20	18	15	10	10	10	8	8	7	5	5	5	5	5	5	28	4.7	4.7	4.7	4.7	4.7	4.7	19.7	19.7	19.7	17.7	17.7	16.7	18.5
21	1SV21AD024	17	18	7	10	7	10	8	4	3	3	4	5	5	5	5	18	3.0	3.0	3.0	3.0	3.0	3.0	16.0	14.0	18.0	16.0	12.0	11.0	14.5
22	1SV21AD025	17	17	10	10	7	10	7	5	5	4	5	5	5	3	4	31	5.2	5.2	5.2	5.2	5.2	5.2	19.2	17.2	20.2	17.2	13.2	14.2	16.8
23	1SV21AD026	20	18	16	10	10	10	8	8	8	5	5	5	5	5	5	42	7.0	7.0	7.0	7.0	7.0	7.0	22.0	22.0	22.0	20.0	20.0	20.0	21.0
24	1SV21AD027	20	17	12	10	10	10	7	6	6	5	5	5	5	5	4	29	4.8	4.8	4.8	4.8	4.8	4.8	19.8	19.8	19.8	16.8	15.8	14.8	17.8
25	1SV21AD028	20	17	13	10	10	10	7	6	7	5	5	5	5	5	5	28	4.7	4.7	4.7	4.7	4.7	4.7	19.7	19.7	19.7	16.7	15.7	16.7	18.0
26	1SV21AD029	19	16	17	10	9	8	8	8	9	3	4	5	5	5	5	32	5.3	5.3	5.3	5.3	5.3	5.3	18.3	18.3	18.3	18.3	18.3	19.3	18.5
27	1SV21AD030	20	19	17	10	10	10	9	9	8	5	5	5	5	5	5	36	6.0	6.0	6.0	6.0	6.0	6.0	21.0	21.0	21.0	20.0	20.0	19.0	20.3
28	1SV21AD031	19	18	12	10	9	10	8	6	6	5	5	5	5	5	5	38	6.3	6.3	6.3	6.3	6.3	6.3	21.3	20.3	21.3	19.3	17.3	17.3	19.5
29	1SV21AD032	19	17	14	10	9	10	7	7	7	3	3	5	5	5	4	37	6.2	6.2	6.2	6.2	6.2	6.2	19.2	18.2	21.2	18.2	18.2	17.2	18.7
30	1SV21AD033	19	18	14	10	9	10	8	7	7	3	3	5	5	5	5	36	6.0	6.0	6.0	6.0	6.0	6.0	19.0	18.0	21.0	19.0	18.0	18.0	18.8
31	1SV21AD034	20	18	15	10	10	10	8	7	8	5	5	5	5	5	5	38	6.3	6.3	6.3	6.3	6.3	6.3	21.3	21.3	21.3	19.3	18.3	19.3	20.2
32	1SV21AD035	19	16	14	10	9	8	8	7	7	5	5	5	5	5	5	31	5.2	5.2	5.2	5.2	5.2	5.2	20.2	19.2	18.2	18.2	17.2	17.2	18.3
33	1SV21AD036	19	15	14	10	9	7	8	7	7	5	5	5	5	5	4	18	3.0	3.0	3.0	3.0	3.0	3.0	18.0	17.0	15.0	16.0	15.0	14.0	15.8
34	1SV21AD037	20	18	18	10	10	10	8	10	8	5	5	5	5	5	5	42	7.0	7.0	7.0	7.0	7.0	7.0	22.0	22.0	22.0	20.0	22.0	20.0	21.3
35	1SV22AD400	20	19	17	10	10	10	9	10	7	5	5	5	5	5	5	42	7.0	7.0	7.0	7.0	7.0	7.0	22.0	22.0	22.0	21.0	22.0	19.0	21.3
36	1SV22AD401	20	19	17	10	10	10	9	10	7	4	5	5	5	5	5	44	7.3	7.3	7.3	7.3	7.3	7.3	21.3	22.3	22.3	21.3	22.3	19.3	21.5
37	1SV22AD402	20	18	15	10	10	10	8	7	8	5	5	5	5	5	5	38	6.3	6.3	6.3	6.3	6.3	6.3	21.3	21.3	21.3	19.3	18.3	19.3	20.2
38	1SV22AD403	19	16	14	10	9	8	8	7	7	5	5	5	5	5	5	31	5.2	5.2	5.2	5.2	5.2	5.2	20.2	19.2	18.2	18.2	17.2	17.2	18.3
																								79.0%	79.0%	79.0%	71.6%	67.9%	71.6%	

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