CARE COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

2.5.1 Mechanism of Internal Assessment is transparent and robust in terms of frequency and mode

2.5.1 INDEX

2.5.1.1. THEORY COURSES:

CYCLE TEST-1

CIRCULAR

CARE
COLLEGE OF ENGINEERING
(Approved by AICTE and Affiliated to Anna University, Chennai)
27, Thayanur, Trichy - 620009

Lt No: CARE/EXAMCELL/2022/014 Date: 08.09.2022

CIRCULAR

This is to inform you that, the faculties are requested to send the Cycle Test 1 question paper for UG III & IV Year to Exam cell on or before 10.09.2022 in the prescribed format.

EXAMCELL

Copy to

All HoD's

CIVIL –
CSE –
ECE –
MECH –
AI&DS –
S&H –

Fig.1-Cycle Test 1 Circular

TIMETABLE

CARE

COLLEGE OF ENGINEERING

(Approved by AICTE and Affiliated to Anna University, Chennai)

27, Thayanur, Trichy - 620009

B.E - SECOND YEAR - ODD SEMESTER 2022-2023

TIME TABLE

CYCLE TEST-I (26.09.2022 to 01.10.2022) **Time : FN - 11.00 am to 12.30 pm**

Date Session	Department			
	MECH		AI & DS	
	Subject Code	Subject Name	Subject Code	Subject Name
26.09.2022 FN	MA3351	Transforms and Partial Differential Equations	MA3354	Discrete Mathematics
27.09.2022 FN	ME3392	Engineering Materials and Metallurgy	CS3351	Digital Principles and Computer Organization
28.09.2022 FN	ME3351	Engineering Mechanics	AD3391	Database Design and Management
29.09.2022 FN	ME3393	Manufacturing Processes	AD3351	Design and Analysis of Algorithms
30.09.2022 FN	ME3391	Engineering Thermodynamics	AD3301	Data Exploration and Visualization
01.10.2022 FN	CE3391	Fluid Mechanics and Machinery	AL3391	Artificial Intelligence

EXAMCELL

PRINCIPAL

Fig 2-Cycle Test 1 Time Table

DUTY CHART

CARE
COLLEGE OF ENGINEERING

INVIGILATION DUTY CHART - OCTOBER 2022, UNIT TEST- II (II YEAR)

DATE : 19.10.2022 to 21.10.2022

TIME : FN : 11.00 am to 12.30 pm

AN : 03.20 pm to 04.50 pm

S. No	Name of the faculty	Desgn.	Dept	Contact No	Total Duties	19.10.2022 FN	19.10.2022 AN	20.10.2022 FN	20.10.2022 AN	21.10.2022 FN	21.10.2022 AN	Total Duties
1	Murali C S	AP	CIVIL	8807711113	7						X	8
2	Vigneshwaran G	AP	CIVIL	8825876080	7					X		8
3	Vetri Aadithiya K	AP	CIVIL	9629105851	7				X			8
4	Mohanalakshmi V	AP	CIVIL	6379986681	7			X				8
5	Sasikala R	AP	CSE	7010617120	6			X		X		8
6	Muthukumaran C	AP	CSE	9894659883	7		X					8
7	Gomathi V	AP	CSE	9788522652	6		X					7
8	Ranjani V	AP	CSE	9791285772	6				X			7
9	Thangamani M	AP	CSE	9311290728	6	X				X		8
10	Mohamed Nizarudeen M	AP	CSE	9965804868	7		X					8
11	Kalaiselvi. R	AP	CSE	8056313519	2			X			X	4
12	Anitha J	AP	AI&DS	8946089298	6	X					X	8
13	Vijayalakshmi M	AP	AI&DS	8754921400	7				X			8
14	Parveen Banu N	AP	AI&DS	9597515629	7					X		8
15	Saravanan K	AP	AI&DS	9788068384	7					X		8
16	Sriram Sundar S	AP	ECE	8667488805	7			X				8
17	Vanitha R	AP	ECE	8220681142	6			X			X	8
18	Shiva Shankari M	AP	ECE	9894214800	6		X			X		8
19	Dhivya S	AP	ECE	9585060790	7	X						8
20	Elavarasi R	AP	ECE	9361305835	7				X			8
21	Jenin J S	AP	ECE	9843651496	7		X					8
22	Karthik S	AP	MECH	9080888691	7				X			8
23	Gobalakrishnan B	AP	MECH	9790567377	7			X				8
24	Maheshwaran S	AP	MECH	9944637172	7	X						8
25	Thirumani K S	AP	MECH	9865857237	7					X		8
26	Dineshkumar P	AP	MECH	7598200111	7	X						8
27	Arunkumar A	AP	CHE	9994498818	7				X			8
28	Paventhan V T	AP	CHE	9677797951	7		X					8
29	Saravanan R	AP	EEE	9489202756	6						X	7

COLLEGE OF ENGINEERING

INVIGILATION DUTY CHART - OCTOBER 2022, UNIT TEST- II (II YEAR)

DATE : 19.10.2022 to 21.10.2022

TIME : FN : 11.00 am to 12.30 pm

AN : 03.20 pm to 04.50 pm

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30	Shirley Mary Vanitha A	AP	ENG	9442869033	0							0
31	Karthicka A	AP	ENG	7708469448	0							0
32	Thavaselvan G	AP	MATHS	9597965968	6	X						7
33	Christina Merline Y D	AP	MATHS	9894974118	6			X				7
34	Nirmala Devi D	AP	MATHS	9790882419	6		X					7
35	Anand R	AP	MATHS	9600362882	6				X			7
36	Velvizhi P	AP	MATHS	9894164610	6	X						7
37	Susindhiran	AP	PHY	9487253231	0							0
38	Helen Selvi M	AP	PHY	9865430021	0							0
						7	7	7	7	7	5	
39	Mrs.B.SUDHA PRIYA	HOD	CIVIL	7904393244		INTERNAL EXAM SQUAD 19.10.2022 FN						
40	Dr.D R RAJKUMAR	HOD	MECH	9894310108		INTERNAL EXAM SQUAD 19.10.2022 AN						
41	Dr.J.JEYARANI	HOD	ECE	8072473684		INTERNAL EXAM SQUAD 20.10.2022 FN						
42	Dr.J.SURESH	HOD	CSE	9994441744		INTERNAL EXAM SQUAD 20.10.2022 AN						
43	Mrs.T.AMUTHA	HOD	AI&DS	9578684781		INTERNAL EXAM SQUAD 21.10.2022 FN						
44	Mr.G.VENKATESAN	HOD	S&H	9003723138		INTERNAL EXAM SQUAD 21.10.2022 AN						

Note:

1. Faculty members are requested to report to the examcell 15 minutes before the commencement of exam.
2. Answer Papers Should be collected by invigilators as per Register number order.
3. Faculty members are KINDLY ASKED to make alternate arrangement in case of taking leave.

PRINCIPAL
CARE COLLEGE OF ENGINEERING
No. 27, Thayanur, Trichy-620 009.

Fig 3-Cycle Test 1 Duty Chart

QUESTION PAPER

AB-NIL

Reg Number												

CARE COLLEGE OF ENGINEERING, TRICHY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

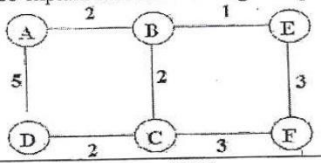
CLASS	:	II B.E ECE	MAX MARKS	:	100
SEMESTER	:	IV	DURATION	:	03 HOURS
SUBJECT	:	NETWORKS & SECURITY	CODE	:	EC3401
COURSE NO.	:	EC402	DATE	:	07.03.2023
ACADEMIC YEAR	:	2022 – 23 (EVEN)	EXAM	:	CYCLE TEST 1

PART – A (10 X 2 = 20 Marks)

I		ANSWER ALL QUESTIONS	BT Level	CO
	1	Define Protocol	K1	EC402.1
	2	What is meant by Bit stuffing? Give an example	K1	EC402.1
	3	Why we go for layering?	K1	EC402.1
	4	Define hidden node problem	K1	EC402.1
	5	List the drawbacks of Bluetooth.	K1	EC402.1
	6	Specify the type of errors handles by the ICMP Messages.	K2	EC402.2
	7	Mention the drawbacks of IP.	K1	EC402.2
	8	Find the class of each address i) 10001000 01000010 00101000 01001111 ii) 226.27.43.240	K2	EC402.2
	9	Write down the advantages of Datagram Approach	K2	EC402.2
	10	Compare a Piconet and a Scatternet in the Bluetooth Architecture.	K2	EC402.2

PART – B (5 X 13 = 65 Marks)

II				ANSWER ALL QUESTIONS	Marks	BT Level	CO
	11	(a)		Draw OSI Network layer architecture and explain its functionality	13	K2	EC402.1
				(OR)			
		(b)		Explain Flow control Mechanism in detail	13	K2	EC402.1
	12	(a)		Explain in detail about WLAN Technologies. Explain in detail about Bluetooth architecture with proper diagrams	13	K2	EC402.1
				(OR)			
		(b)		Explain in detail about IEEE 802.11 Standard. Also explain how it differs from IEEE 802.3 standard.	13	K2	EC402.1

	13	(a)		Answer the following questions: i) What is the polynomial representation of 110111? ii) What is the result of shifting 111000 three bits to the left? iii) Repeat part (ii) using polynomials. iv) What is the result of shifting 110011 four bits to the right? Repeat part (iv) using polynomials.	13	K2	EC402.1
				(OR)			
		(b)		Explain in detail about Error Detection and Correction methods	13	K2	EC402.1
	14	(a)		Explain the function of Distance vector routing protocol for this given figure. Also explain link state routing with proper examples  	13	K2	EC402.2
				(OR)			
		(b)		Discuss the fundamentals and advantages of open shortest path first protocol	13	K2	EC402.2
	15	(a)		With an example network scenario explain the mechanism of Routing Information Protocol and specify the routing table contents.	13	K2	EC402.2
				(OR)			
		(b)		Explain few characteristics of Border gateway protocol proper diagrams	13	K2	EC402.2

PART – C (1 X 15 = 15 Marks)

III				ANSWER ALL QUESTIONS	Marks	BT Level	CO
	16	(a)		There are two popular technologies for Local Area Network (LAN) design, namely IEEE 802.3 Ethernet and IEEE 802.11 WiFi. Use your knowledge of these technologies to answer the following questions: i) What Data link layer service model is provided by each of these LAN technologies? How are they similar? How are they different? (3) ii) List three similarities about Ethernet and WiFi. (3) iii) Which of these two LAN technologies has the higher bit error rate, and why? (3) iv) Which LAN technology provides better support for mobile users, and how? (3) v) List and explain any two other features of WiFi technology that are not available (or even possible) in Ethernet LANs (3)	15	K2	EC402.1
				(OR)			
		(b)	(i)	Explain the Network layer protocols ICMP & Mobile IP with proper diagrams	08	K2	EC402.1
			(ii)	What is IPv4 & IPv6 also compare IPv4 & IPv6.	07	K2	EC402.1

Blooms Levels: K1 - Remember, K2 – Understand, K3 - Apply, K4 - Analyze, K5 - Evaluate, K6 – Create

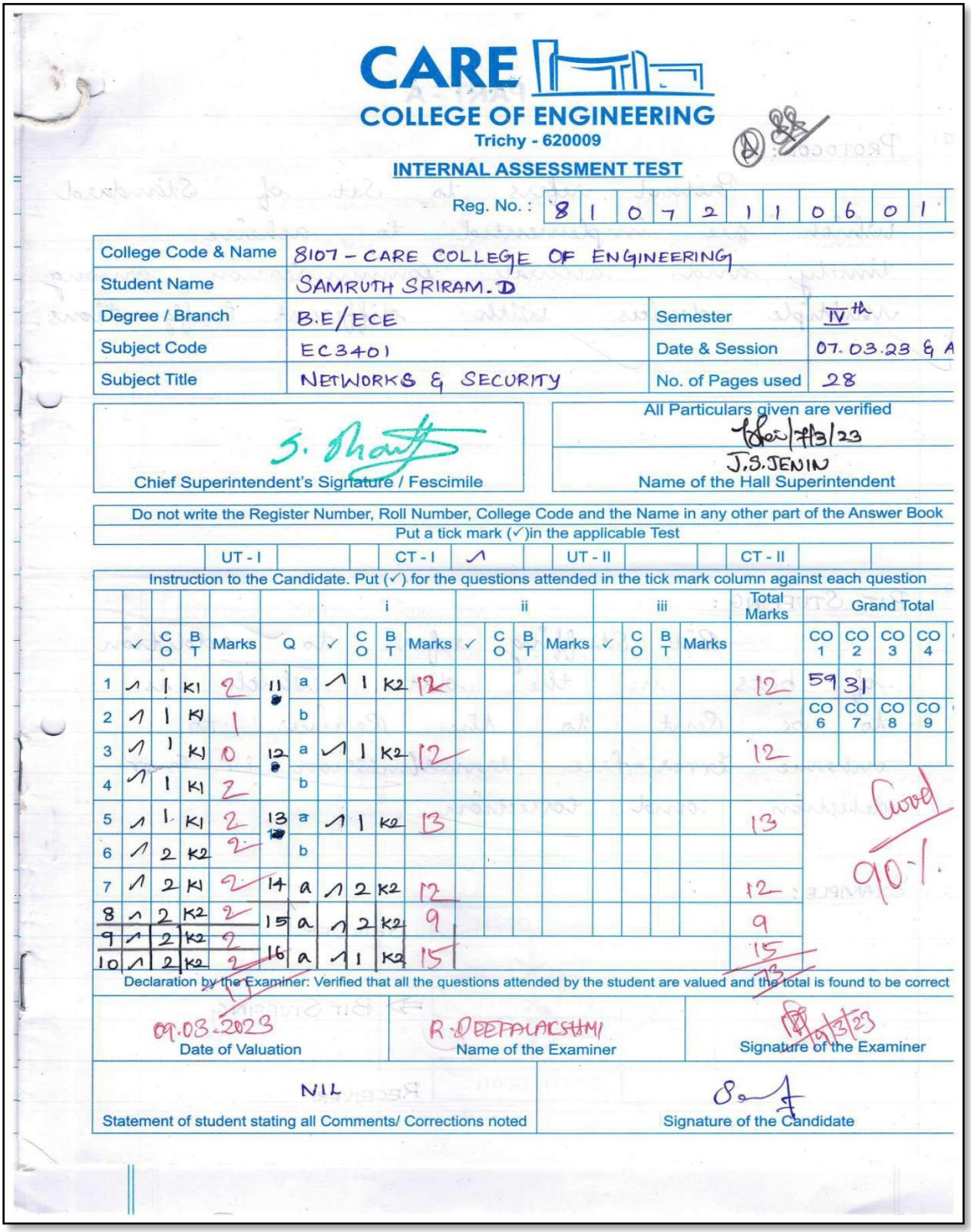
Faculty In-charge
R.Deepalakshmi AP/ECE

HOD
Dr.J.Jeyarani

Principal
Dr.S.Shanthi

Fig 4- Cycle Test 1 Question Paper

SAMPLE SHEET



CARE
COLLEGE OF ENGINEERING
Trichy - 620009

INTERNAL ASSESSMENT TEST

Reg. No. : 8 1 0 7 2 1 1 0 6 0 1

College Code & Name	8107 – CARE COLLEGE OF ENGINEERING		
Student Name	SAMRUTH SRIRAM. D		
Degree / Branch	B.E/ECE	Semester	IV th
Subject Code	EC3401	Date & Session	07.03.23 & A
Subject Title	NETWORKS & SECURITY	No. of Pages used	28

Chief Superintendent's Signature / Fescimile

All Particulars given are verified
7/3/23
J.S.JENIN
Name of the Hall Superintendent

Do not write the Register Number, Roll Number, College Code and the Name in any other part of the Answer Book
Put a tick mark (✓)in the applicable Test

UT - I		CT - I	✓	UT - II		CT - II	

Instruction to the Candidate. Put (✓) for the questions attended in the tick mark column against each question

	i					ii					iii				Total Marks	Grand Total			
	✓	CO	BT	Marks	Q	✓	CO	BT	Marks	✓	CO	BT	Marks	✓	CO	BT	Marks		CO 1	CO 2	CO 3	CO 4
1	✓	1	K1	2	11 a	✓	1	K2	12									12	59	31		
2	✓	1	K1	1	b														CO 6	CO 7	CO 8	CO 9
3	✓	1	K1	0	12 a	✓	1	K2	12									12				
4	✓	1	K1	2	b																	
5	✓	1	K1	2	13 a	✓	1	K2	13									13				
6	✓	2	K2	2	b																	
7	✓	2	K1	2	14 a	✓	2	K2	12									12				
8	✓	2	K2	2	15 a	✓	2	K2	9									9				
9	✓	2	K2	2																		
10	✓	2	K2	2	16 a	✓	1	K2	15									15				

Curved 90%

Declaration by the Examiner: Verified that all the questions attended by the student are valued and the total is found to be correct

Date of Valuation	Name of the Examiner	Signature of the Examiner
09.03.2023	R. DEEPALAKSHMI	9/3/23

Statement of student stating all Comments/ Corrections noted	Signature of the Candidate
NIL	

Fig. 5- Cycle Test 1 Sample

CYCLE TEST-II

CIRCULAR

CARE

COLLEGE OF ENGINEERING

(Approved by AICTE and Affiliated to Anna University, Chennai)

27, Thayanur, Trichy - 620009

Lt No: CARE/EXAMCELL/2023/029 Date: 08.02.2023

CIRCULAR

This is to inform you that, Cycle Test II Timetable for UG I Year is attached with this circular. Kindly circulate this to concern department faculties and students.

K. Mahadevi

EXAMCELL

Copy to

All HoD's

S&H – 08/02/23

CSE – 8/2/23

AI&DS – 9/2

Fig 6. Cycle Test II Circular

TIMETABLE

CARE COLLEGE OF ENGINEERING

(Approved by AICTE and Affiliated to Anna University, Chennai)
27, Thayanur, Trichy – 620009

DEPARTMENT OF CIVIL ENGINEERING

EVEN SEMESTER 2022-2023 TIME TABLE – CYCLE TEST- II (05.04.2023 TO 13.04.2023)

DATE	SESSION	III YEAR		DATE	SESSION	II YEAR	
05.04.2023	AN 01:45 P.M TO 04.45 P.M	CE8601	DESIGN OF STEEL STRUCTURAL ELEMENTS	**05.04.2023**	AN 01:45 P.M TO 04.45 P.M	CE3401	APPLIED HYDRAULICS ENGINEERING
06.04.2023	AN 01:45 P.M TO 04.45 P.M	CE8603	IRRIGATION ENGINEERING	**06.04.2023**	AN 01:45 P.M TO 04.45 P.M	CE3403	CONCRETE TECHNOLOGY
10.04.2023	AN 01:45 P.M TO 04.45 P.M	****	*********	**10.04.2023**	AN 01:45 P.M TO 04.45 P.M	CE3402	STRENGTH OF MATERIALS
11.04.2023	AN 01:45 P.M TO 04.45 P.M	CE8602	STRUCTURAL ANALYSIS II	**11.04.2023**	AN 01:45 P.M TO 04.45 P.M	CE3404	SOIL MECHANICS
12.04.2023	AN 01:45 P.M TO 04.45 P.M	CE8604	HIGHWAY ENGINEERING	**12.04.2023**	AN 01:45 P.M TO 04.45 P.M	CE3405	HIGHWAY AND RAILWAY ENGINEERING
13.04.2023	AN 01:45 P.M TO 04.45 P.M	EN8592	WASTEWATER ENGINEERING	**13.04.2023**	AN 01:45 P.M TO 04.45 P.M	GE3451	ENVIRONMENTAL SCIENCES AND SUSTAINABILITY

EXAM CELL

PRINCIPAL

Fig.7 Cycle Test II Timetable

DUTY CHART

CARE COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi | Affiliated to Anna University, Chennai
Accredited by NAAC with 'A' Grade
#27, Thayanur, Tiruchirappalli - 620009

I YEAR - CYCLE TEST II EXAMINATION , INVIGILATION DUTY CHART - JULY 2023

DATE : 05.07.2023 to 12.07.2023

TIME : AN :01.45 pm to 04.45 pm

S. No	Name of the faculty	Desgn.	Dept	Contact No	Total Duties	05.07.2023 AN	06.07.2023 AN	07.07.2023 AN	08.07.2023 AN	10.07.2023 AN	11.07.2023 AN	12.06.2023 AN	Total Duties	Signature
1	Murali C S	AP	CIVIL	8807711113	9								9	
2	Mohanalakshmi V	AP	CIVIL	6379986681	8	X							9	
3	Joshua Sakunth. J	AP	CIVIL	9952106518	8		X						9	
4	Nandhini S	AP	CIVIL	9500815306	3			X			X		5	
5	Sasikala R	AP	CSE	7010617120	8	X							9	
6	Gomathi V	AP	CSE	9788522652	8				X				9	
7	Mohamed Nizarudeen M	AP	CSE	9965804868	8					X			9	
8	Lakshana M	AP	CSE	8438423926	9								9	
9	Uma Maheswari. P	AP	CSE	8870832779	9								9	
10	Ranitha.R	AP	CSE	9894250879	9								9	
11	Anne Pratheeba	AP	CSE	9942711335	9								9	
12	Jeeva K	AP	CSE	9894136042	0	X							1	
13	Jenifa J	AP	CSE	9524640819	0		X				X		2	
14	Vijayalakshmi M	AP	AI&DS	8754921400	9								9	
15	Parveen Banu N	AP	AI&DS	9597515629	9								9	
16	Saravanan K	AP	AI&DS	9788068384	9								9	
17	Kalaiselvi. R	AP	AI&DS	8056313519	9								9	
18	Anitha M	AP	AI&DS	9442108806	9								9	
19	Nageswari S	AP	AI&DS	9884543903	9								9	
20	Shakilabanu S	AP	AI&DS	9791711089	9								9	
21	Murugan.V	AP	AI&DS	9698814584	9								9	
22	D.Kiruthiga	AP	AI&DS	9600880446	3	X			X				5	
23	Dr.M.Jothi	ASP	AI&DS	9865969462	2		X			X			4	
24	Subashini RC	AP	AI&DS	8072463090	0	X		X			X		3	
25	Sriram Sundar S	AP	ECE	8667488805	5	X			X			X	8	
26	Vanitha R	AP	ECE	8220681142	9							X	10	
27	Shiva Shankari M	AP	ECE	9894214800	9								9	
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29	Elavarasi R	AP	ECE	9361305835	9								9	
30	Jenin J S	AP	ECE	9843651496	9								9	
31	Asra Jabeen	AP	ECE	8124700166	2		X		X				4	
32	Karthik S	AP	MECH	9080888691	9								9	
33	Dr.Gobalakrishnan B	AP	MECH	9790567377	9								9	
34	Anthony Kingston. M	AP	MECH	7845224521	9								9	
35	V.Venkatesan	AP	MECH	9965186519	2	X			X				4	
36	Ganesh N	AP	MECH	8608148916	0		X		X		X		3	

CARE
COLLEGE OF ENGINEERING
Approved by AICTE, New Delhi | Affiliated to Anna University, Chennai
Accredited by NAAC with 'A' Grade
#27, Thayanur, Tiruchirappalli - 620009

I YEAR - CYCLE TEST II EXAMINATION , INVIGILATION DUTY CHART - JULY 2023

DATE : 05.07.2023 to 12.07.2023

TIME : AN :01.45 pm to 04.45 pm

S. No	Name of the faculty	Desgn.	Dept	Contact No	Total Duties	05.07.2023 AN	06.07.2023 AN	07.07.2023 AN	08.07.2023 AN	10.07.2023 AN	11.07.2023 AN	12.06.2023 AN	Total Duties	Signature
37	Paventhan V T	AP	CHE	9677797951	4		X		X				6	
38	Joseph Rozario T	AP	CHE	9597409153	4					X			5	
39	Saravanan R	AP	EEE	9489202756	4			X		X			6	
40	Shirley Mary Vanitha A	AP	ENG	9442869033	3	X		X			X	X	7	
41	Karthicka A	AP	ENG	7708469448	4		X			X	X		7	
42	Jeevitha M	AP	ENG	8870889228	2		X		X		X		5	
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45	Nirmala Devi D	AP	MATHS	9790882419	4			X			X		6	
46	Anand R	AP	MATHS	9600362882	4		X			X			6	
47	Dr.Velvizhi P	ASP	MATHS	9894164610	4			X		X			6	
48	Susindhiran S	AP	PHY	9487253231	3				X				4	
49	Dr.Helen Selvi M	AP	PHY	9865430021	4	X		X					6	
50	Dr.Vinotha G	AP	PHY	7358869536	4			X		X			6	
						9	9	9	9	9	8	3	56	
51	Mrs.B.SUDHA PRIYA	HOD	CIVIL	7904393244	INTERNAL EXAM SQUAD 05.07.2023 AN									
52	Dr.J.SURESH	HOD	CSE	9994441744	INTERNAL EXAM SQUAD 06.07.2023 AN & 12.07.2023 AN									
53	Dr.D R RAJKUMAR	HOD	MECH	9894310108	INTERNAL EXAM SQUAD 07.07.2023 AN									
54	Dr.J.JEYARANI	HOD	ECE	8072473684	INTERNAL EXAM SQUAD 08.07.2023 AN									
55	Mrs.T.AMUTHA	HOD	AI&DS	9578684781	INTERNAL EXAM SQUAD 10.07.2023 AN									
56	Mr.G.VENKATESAN	HOD	S&H	9003723138	INTERNAL EXAM SQUAD 11.07.2023 AN									

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PRINCIPAL
CARE COLLEGE OF ENGINEERING
No. 27, Thayanur, Trichy-620 009.

Fig.8. Cycle Test II Duty Chart

QUESTION PAPER

Reg Number												

CARE COLLEGE OF ENGINEERING, TRICHY

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

CLASS	:	II B.TECH. AI&DS	MAX MARKS	:	100
SEMESTER	:	IV	DURATION	:	3Hrs
SUBJECT	:	OPERATING SYSTEMS	CODE	:	AL3452
COURSE NO	:	AD402	DATE	:	06.04.2023 / AN
ACADEMIC YEAR	:	2022 – 23 (EVEN)	EXAM	:	CYCLE TEST 2

PART – A (10 X 2 = 20 Marks)

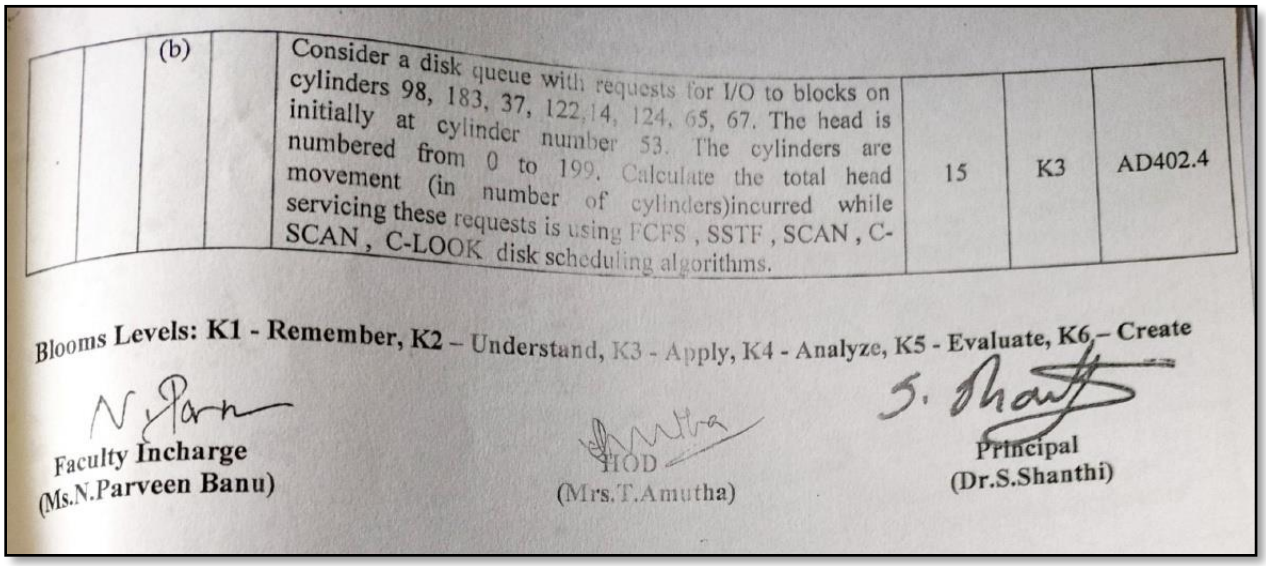
		ANSWER ALL QUESTIONS	BT level	CO
I	1	Define external fragmentation.	K1	AD402.3
	2	Will optimal page replacement suffer from Belady's anomaly? Justify your answer.	K2	AD402.3
	3	State the difference between logical and physical addresses.	K2	AD402.3
	4	What is thrashing? How to resolve it?	K1	AD402.3
	5	In a paging system, it takes 40 ns to search TLB and 110 ns to access main memory. If TLB hit ratio is 80%.Calculate the effective memory access time.	K2	AD402.3
	6	Differentiate between file and directory.	K2	AD402.4
	7	Suppose that the disk rotates at 7200 rpm. What is the rotational latency of the disk drive?	K2	AD402.4
	8	What is a file? Give its attributes.	K1	AD402.4
	9	What is an absolute path name?	K1	AD402.4
	10	What is physical formatting?	K1	AD402.4

PART – B (5 X 13 = 65 Marks)

II				ANSWER ALL QUESTIONS	Marks	BT Level	CO
	11	(a)		With a neat sketch, explain how logical address is translated into physical address using paging mechanism in detail.	13	K2	AD402.3
				(OR)			
		(b)		Explain the most common techniques for structuring the page table.	13	K2	AD402.3
	12	(a)	(i)	Given memory partitions of 100 KB, 500 KB, 200 KB, 300 KB, 600 KB, how would each of the first-fit, best-fit, worst-fit algorithms place processes of 222 KB, 419 KB, 116KB, and 456 KB? Which algorithm makes the most efficient use of memory?	5	K3	AD402.3

			(ii)	Explain contiguous memory allocation in detail.	8	K2	AD402.3
				(OR)			
		(b)	(i)	Consider the following page reference string 1,2,3,4,5,3,4,1,6,7,8,7,8,9,7,8,9,5,4,4,5,3.How many page faults would occur for the following page replacement algorithms? 1. LRU 2. FIFO 3. Optimal Assume four frames and all frames are initially empty.	5	K3	AD402.3
			(ii)	Explain Demand paging in detail.	8	K2	AD402.3
	13	(a)	(i)	Consider the following segment table: Segment Base Length 0 219 600 1 2300 14 2 90 100 3 1327 580 4 1952 96 What are the physical addresses for the logical addresses 3400 and 0110?	4	K3	AD402.3
			(ii)	Explain segmentation in detail.	9	K2	AD402.3
				(OR)			
		(b)		Briefly explain the following i) Copy on write ii) Allocation of frames iii) Thrashing	13	K2	AD402.3
	14	(a)		Elaborate on various File allocation methods.	13	K2	AD402.4
				(OR)			
		(b)		Explain File system mounting in detail.	13	K2	AD402.4
	15	(a)		Explain Disk scheduling and management in detail.	13	K2	AD402.4
				(OR)			
		(b)		Explain various directory structures in detail.	13	K2	AD402.4

III	ANSWER ALL QUESTIONS	Marks	BT Level	CO
	PART – C (1 X 15 =1 5 Marks)			
16	(a)	Suppose the order of request is - 82,170,42,140,24,16,190 and current position of Read/Write head is: 50. The cylinders are numbered from 0 to 199. Calculate the total head movement (in number of cylinders)incurred while servicing these requests is using FCFS , SSTF , SCAN , C-SCAN , C-LOOK disk scheduling algorithms.	15	K3	AD402.4
	(OR)			



		(b)		Consider a disk queue with requests for I/O to blocks on cylinders 98, 183, 37, 122, 14, 124, 65, 67. The head is initially at cylinder number 53. The cylinders are numbered from 0 to 199. Calculate the total head movement (in number of cylinders)incurred while servicing these requests is using FCFS , SSTF , SCAN , C-SCAN , C-LOOK disk scheduling algorithms.	15	K3	AD402.4

Blooms Levels: **K1 - Remember, K2** – Understand, K3 - Apply, K4 - Analyze, K5 - Evaluate, K6 – Create

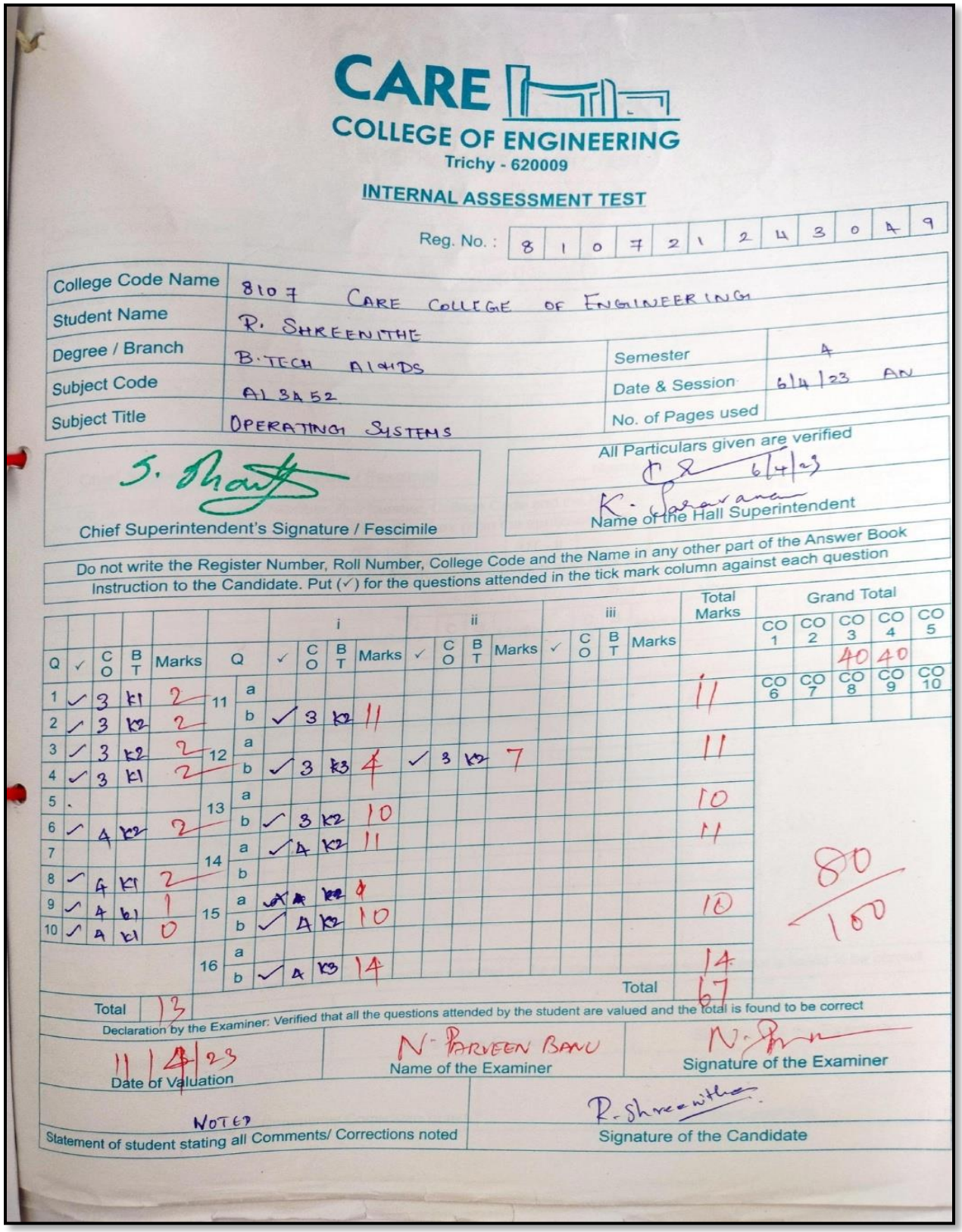
Faculty Incharge
(Ms.N.Parveen Banu)

HOD
(Mrs.T.Amutha)

Principal
(Dr.S.Shanthi)

Fig. 9- Cycle Test II Question Paper

SAMPLE



CARE COLLEGE OF ENGINEERING
Trichy - 620009

INTERNAL ASSESSMENT TEST

Reg. No. : 8 1 0 7 2 1 2 4 3 0 4 9

College Code Name	8107 CARE COLLEGE OF ENGINEERING		
Student Name	R. SHREENITHE		
Degree / Branch	B.TECH AI&DS	Semester	4
Subject Code	AL3A52	Date & Session	6/4/23 AN
Subject Title	OPERATING SYSTEMS	No. of Pages used	

Chief Superintendent's Signature / Fescimile

All Particulars given are verified 6/4/23
K. Saravanan
Name of the Hall Superintendent

Do not write the Register Number, Roll Number, College Code and the Name in any other part of the Answer Book
Instruction to the Candidate. Put (✓) for the questions attended in the tick mark column against each question

Q	✓	CO	BT	Marks	i Q	✓	CO	BT	Marks	ii ✓	CO	BT	Marks	iii ✓	CO	BT	Marks	Total Marks
1	✓	3	K1	2	11 a													
2	✓	3	K2	2	b	✓	3	K2	11									11
3	✓	3	K2	2	12 a													
4	✓	3	K1	2	b	✓	3	K3	4	✓	3	K3	7					11
5	.				13 a													
6	✓	4	K2	2	b	✓	3	K2	10									10
7					14 a	✓	4	K2	11									11
8	✓	4	K1	2	b													
9	✓	4	K1	1	15 a	✓	4	K2	4									
10	✓	4	K1	0	b	✓	4	K2	10									10
					16 a													
					b	✓	4	K3	14									14
Total				13													Total	67

Grand Total

CO 1	CO 2	CO 3	CO 4	CO 5
		40	40	
CO 6	CO 7	CO 8	CO 9	CO 10

80/100

Declaration by the Examiner: Verified that all the questions attended by the student are valued and the total is found to be correct

Date of Valuation	Name of the Examiner	Signature of the Examiner
11/4/23	N. PARVEEN BANU	N. Parveen

Statement of student stating all Comments/ Corrections noted	Signature of the Candidate
NOTED	R. Shreenithe

Fig.10- Cycle Test II Sample

MODEL EXAMINATION

CIRCULAR

CARE
COLLEGE OF ENGINEERING
(Approved by AICTE and Affiliated to Anna University, Chennai)
27, Thayanur, Trichy - 620009

Lt No: CARE/EXAMCELL/2022/025 Date: 14.12.2022

CIRCULAR

This is to inform you that, Model Examination Timetable for UG II Year is attached with this circular. Kindly circulate this to concern department faculties and students.

EXAMCELL

Copy to

All HoD's

CIVIL –
CSE –
ECE –
MECH –
AI&DS –
S&H –

Fig.11 Model Exam Circular

TIMETABLE

CARE
COLLEGE OF ENGINEERING
Approved by AICTE, New Delhi | Affiliated to Anna University, Chennai
Accredited by NAAC with 'A' Grade
#27, Thayanur, Tiruchirappalli - 620009

DEPARTMENT OF CIVIL ENGINEERING

EVEN SEMESTER 2022-2023 TIME TABLE – MODEL EXAMINATION - I (02.05.2023 TO 09.05.2023)

DATE	SESSION	III YEAR		DATE	SESSION	II YEAR	
02.05.2023	AN 01:45 P.M TO 04.45 P.M	CE8601	DESIGN OF STEEL STRUCTURAL ELEMENTS	02.05.2023	AN 01:45 P.M TO 04.45 P.M	CE3401	APPLIED HYDRAULICS ENGINEERING
03.05.2023	AN 01:45 P.M TO 04.45 P.M	CE8603	IRRIGATION ENGINEERING	03.05.2023	AN 01:45 P.M TO 04.45 P.M	CE3403	CONCRETE TECHNOLOGY
04.05.2023	AN 01:45 P.M TO 04.45 P.M	CE8602	STRUCTURAL ANALYSIS II	04.05.2023	AN 01:45 P.M TO 04.45 P.M	CE3402	STRENGTH OF MATERIALS
06.05.2023	AN 01:45 P.M TO 04.45 P.M	CE8604	HIGHWAY ENGINEERING	06.05.2023	AN 01:45 P.M TO 04.45 P.M	CE3404	SOIL MECHANICS
08.05.2023	AN 01:45 P.M TO 04.45 P.M	EN8592	WASTEWATER ENGINEERING	08.05.2023	AN 01:45 P.M TO 04.45 P.M	CE3405	HIGHWAY AND RAILWAY ENGINEERING
09.05.2023	AN 01:45 P.M TO 04.45 P.M	****	*********	09.05.2023	AN 01:45 P.M TO 04.45 P.M	GE3451	ENVIRONMENTAL SCIENCES AND SUSTAINABILITY

EXAM CELL

PRINCIPAL

Fig. 12- Model Exam Timetable

DUTY CHART

CARE
COLLEGE OF ENGINEERING
Approved by AICTE, New Delhi | Affiliated to Anna University, Chennai
Accredited by NAAC with 'A' Grade
#27, Thayanur, Tiruchirappalli - 620009

II, III & IV YEAR - MODEL EXAMINATION - I , INVIGILATION DUTY CHART - MAY 2023

DATE : 02.05.2023 to 09.05.2023

TIME : AN :01.45 pm to 04.45 pm

S. No	Name of the faculty	Desgn.	Dept	Contact No	Total Duties	02.05.2023 AN	03.05.2023 AN	04.05.2023 AN	06.05.2023 AN	08.05.2023 AN	09.05.2023 AN	Total Duties	Signature
1	Murali C S	AP	CIVIL	8807711113	5		X		X			7	
2	Mohanalakshmi V	AP	CIVIL	6379986681	3	X		X			X	6	
3	Joshua Sakunth. J	AP	CIVIL	9952106518	4			X		X		6	
4	Sasikala R	AP	CSE	7010617120	4	X			X			6	
5	Gomathi V	AP	CSE	9788522652	4		X				X	6	
6	Mohamed Nizarudeen M	AP	CSE	9965804868	3	X		X		X		6	
7	Lakshana M	AP	CSE	8438423926	4		X				X	6	
8	Uma Maheswari. P	AP	CSE	8870832779	4	X			X			6	
9	Ranitha.R	AP	CSE	9894250879	5			X			X	7	
10	Anne Pratheeba	AP	CSE	9942711335	4	X				X		6	
11	Sivaselvi.K	AP	CSE	7530066859	0	X		X				2	
12	Vijayalakshmi M	AP	AI&DS	8754921400	5		X					6	
13	Parveen Banu N	AP	AI&DS	9597515629	4			X		X		6	
14	Saravanan K	AP	AI&DS	9788068384	5					X		6	
15	Kalaiselvi. R	AP	AI&DS	8056313519	5				X			6	
16	Anitha M	AP	AI&DS	9442108806	5	X						6	
17	Nageswari S	AP	AI&DS	9884543903	4		X		X			6	
18	Shakilabanu S	AP	AI&DS	9791711089	5			X				6	
19	Murugan.V	AP	AI&DS	9698814584	4				X		X	6	
20	D.Kiruthiga	AP	AI&DS	9600880446	0							0	
21	Sriram Sundar S	AP	ECE	8667488805	4		X			X		6	
22	Vanitha R	AP	ECE	8220681142	4		X		X			6	
23	Shiva Shankari M	AP	ECE	9894214800	5			X		X		7	
24	Dhivya S	AP	ECE	9585060790	5	X				X		7	
25	Elavarasi R	AP	ECE	9361305835	4	X			X			6	
26	Jenin J S	AP	ECE	9843651496	5		X			X		7	
27	Karthik S	AP	MECH	9080888691	4	X		X			X	7	
28	Dr.Gobalakrishnan B	AP	MECH	9790567377	5					X		6	
29	Maheshwaran S	AP	MECH	9944637172	5			X			X	7	
30	Dineshkumar P	AP	MECH	7598200111	4		X			X		6	
31	Anthony Kingston. M	AP	MECH	7845224521	4	X			X			6	
32		AP	MECH		0							0	
33	Paventhan V T	AP	CHE	9677797951	0				X			1	
34	Banu Karthi G	AP	CHE	9786602406	1							1	
35	Joseph Rozario T	AP	CHE	9597409153	0		X					1	
36	Saravanan R	AP	EEE	9489202756	2							2	

CARE
COLLEGE OF ENGINEERING
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Accredited by NAAC with 'A' Grade
#27, Thayanur, Tiruchirappalli - 620009

II, III & IV YEAR - MODEL EXAMINATION - I , INVIGILATION DUTY CHART - MAY 2023

DATE : 02.05.2023 to 09.05.2023 TIME : AN :01.45 pm to 04.45 pm

S. No	Name of the faculty	Desgn.	Dept	Contact No	Total Duties	02.05.2023 AN	03.05.2023 AN	04.05.2023 AN	06.05.2023 AN	08.05.2023 AN	09.05.2023 AN	Total Duties	Signature
37	Shirley Mary Vanitha A	AP	ENG	9442869033	0				X			1	
38	Karthicka A	AP	ENG	7708469448	0		X					1	
39	Saradha K	AP	ENG	8668152632	1							1	
40	Thavaselvan G	AP	MATHS	9597965968	0			X				1	
41	Christina Merline Y D	AP	MATHS	9894974118	0		X					1	
42	Nirmala Devi D	AP	MATHS	9790882419	0	X						1	
43	Anand R	AP	MATHS	9600362882	1							1	
44	Dr.Velvizhi P	AP	MATHS	9894164610	0		X					1	
45	Susindhiran	AP	PHY	9487253231	0			X				1	
46	Dr.Helen Selvi M	AP	PHY	9865430021	0				X			1	
47	Dr.Vinotha G	AP	PHY	7358869536	0	X						1	
						13	13	12	12	11	7	68	
48	Mrs.B.SUDHA PRIYA	HOD	CIVIL	7904393244	INTERNAL EXAM SQUAD 09.05.2023 AN								
49	Dr.J.SURESH	HOD	CSE	9994441744	INTERNAL EXAM SQUAD 08.05.2023 AN								
50	Dr.D R RAJKUMAR	HOD	MECH	9894310108	INTERNAL EXAM SQUAD 06.05.2023 AN								
51	Dr.J.JEYARANI	HOD	ECE	8072473684	INTERNAL EXAM SQUAD 04.05.2023 AN								
52	Mrs.T.AMUTHA	HOD	AI&DS	9578684781	INTERNAL EXAM SQUAD 03.05.2023 AN								
53	Mr.G.VENKATESAN	HOD	S&H	9003723138	INTERNAL EXAM SQUAD 02.05.2023 AN								

Note:
1. Faculty members are requested to report to the examcell 15 minutes before the commencement of exam.
2. Answer Papers Should be collected by invigilators as per Register number order.
3. Faculty members are KINDLY ASKED to make alternate arrangement in case of taking leave.

PRINCIPAL
CARE COLLEGE OF ENGINEERING
No. 27, Thayanur, Trichy-620 009.

Fig. 13- Model Exam Duty Chart

QUESTION PAPER

Reg. Number													

CARE COLLEGE OF ENGINEERING, TRICHY
DEPARTMENT OF MECHANICAL ENGINEERING

CLASS:	:	**II MECH**	**MAX MARKS**	:	**100**
SEMESTER:	:	**IV**	**DURATION**	:	**3 HOURS**
SUBJECT:	:	**THERMAL ENGINEERING**	**CODE**	:	**ME3451**
COURSE NO	:	**ME402**	**DATE**	:	**18.05.2023 & AN**
ACADEMIC YEAR	:	**2022 – 23 (EVEN)**	**EXAM**	:	**MODEL EXAM - II**

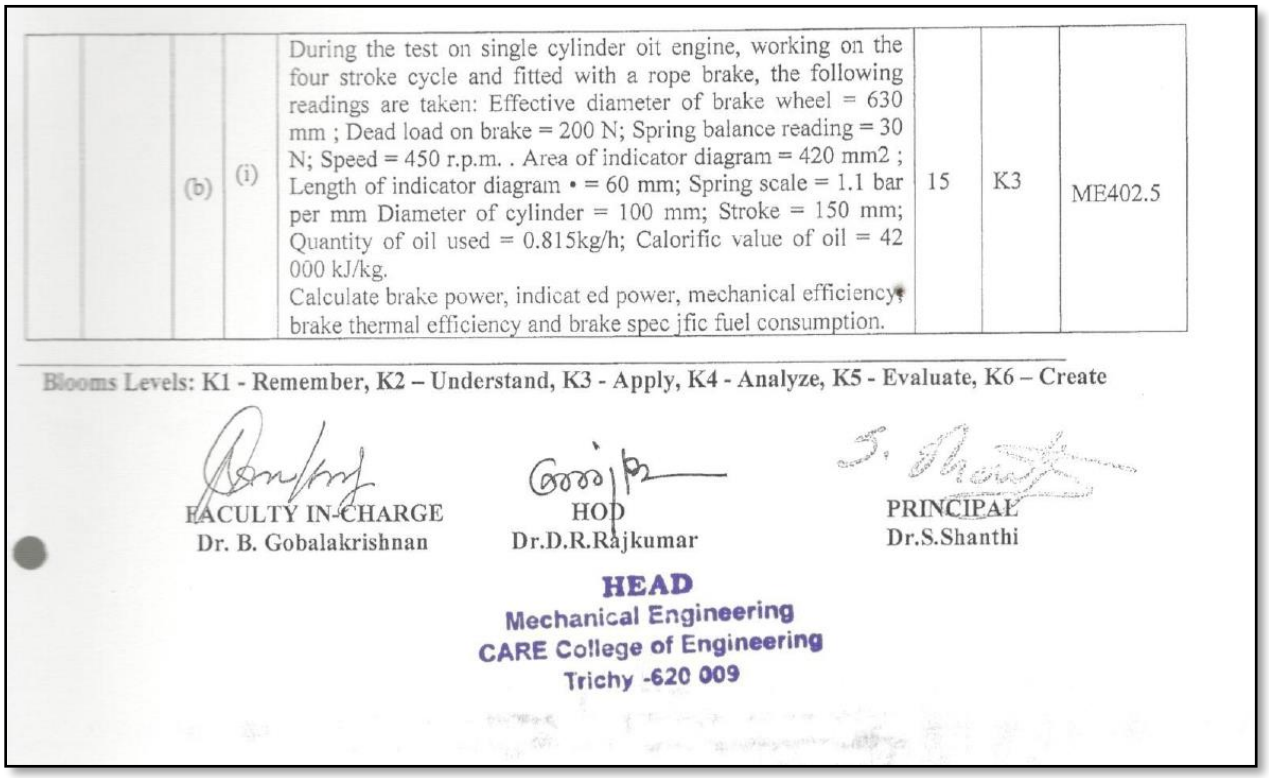
PART – A (10 X 2 = 20 Marks)

I		ANSWER ALL QUESTIONS	BT level	CO
	1.	Draw Brayton cycle in TS and PV planes.	K1	ME402.1
	2.	What are the assumptions made in Air Standard Cycles?	K1	ME402.1
	3.	What are the effects of friction on the flow through a steam nozzle?	K1	ME402.2
	4.	Define nozzle efficiency.	K1	ME402.2
	5.	Define critical pressure ratio.	K1	ME402.3
	6.	Define reaction turbines.	K1	ME402.3
	7.	Define the phenomenon Knocking in spark ignited engines.	K1	ME402.4
	8.	What are the advantages in MPFI System?	K1	ME402.4
	9.	Define the term Brake Power.	K1	ME402.5
	10.	What is meant by supercharging?	K1	ME402.5

PART – B (5 X 13 = 65 Marks)

II		ANSWER ALL QUESTIONS			BT Level	CO
	11	(a)	(i)	Air standard Diesel cycle has a compression ratio of 18. The pressure at the beginning of the compression stroke is 1 bar and the temperature is 30 °C. The heat supplied is 1800 kJ/kg. Determine: (i) Thermal efficiency, (ii) Pressure and temperature at salient points, (iii) Heat rejected, (iv) Mean effective pressure. Assume, Cp and Cv , R and γ suitably.	13	K3	ME402.1
				(OR)			
		(b)	(i)	An engine works on otto cycle. The initial pressure and temperature of the air is 1bar and 40℃. 825 kJ of heat is supplied per kg of air at the end of compression find the temperature and pressure at all salient points if the compression ratio is 6. Also find the efficiency and MEP for the cycle. Assume air as the working fluid & take all ideal conditions.	13	K3	ME402.1
	12	(a)	(i)	Steam enters a nozzle in a dry saturated condition and expands from a pressure of 2 bar to a pressure of 1 bar. It is observed that the supersaturated flow takes place and the steam flow is reverted to a normal flow at 1 bar. What is the degree of under cooling and increase in entropy and also loss in the available heat drop due to irreversibility?	13	K3	ME402.2
				(OR)			

		(b)	(i)	Dry saturated steam at a pressure of 11 bar enters a convergent-divergent nozzle and leaves at a pressure of 2 bar. If the flow is adiabatic and frictionless, determine the: i) exit velocity of steam (ii) ratio of cross-section of exit and that at throat.	13	K3	ME402.2
	13	(a)	(i)	In a De-Laval turbine steam issues from the nozzle with a velocity of 1200 m/s. The nozzle angle is 20, the mean blade velocity is 400 m/s and the inlet and outlet angles of blades are equal. The mass of steam flowing through the turbine per hour is 1000 kg. Calculate the (i) blade angles (ii) relative velocity of steam entering the blades (iii) tangential force on the blades (iy) power developed (v) blade efficiency. Take the blade velocity coefficient as 0.8	13	K3	ME402.3
				(OR)			
		(b)	(i)	300 kg/min of steam (2 bar, 0.8 dry) flows through a given stage of a reaction turbine. The exit angles of fixed blades as well as moving blades are 20° and 3.68 kW of power is developed. If the rotor speed is 360 rpm and tip leakage is 5 percent, calculate the mean drum diameter and the blade height. The axial flow velocity is 0.8 times the blade velocity.	13	K3	ME402.3
	14	(a)	(i)	Explain the typical valve timing diagram and the significance of each angle in the valve timing diagram of four Stroke Engine.	13	K2	ME402.4
				(OR)			
		(b)	(i)	What are the factors to be considered to control the knocking in SI engine? Discuss in detail.	13	K2	ME402.4
	15	(a)	(i)	With neat sketch explain Common Rail Direct injection systems.	13	K2	ME402.5
				(OR)			
		(b)	(i)	A four cylinder engine running at 1200 r.p.m. gave 18.6 kW brake power. The average torque when one cylinder was cut out was 105 N-m. Determine the indicated thermal efficiency if the calorific value of the fuel is 42 000 KJ/kg and the engine uses 0.34 kg of petrol per brake flower hour.	13	K3	ME402.5
				PART – C (1 X 15 = 15 Marks)			
III				**ANSWER ALL QUESTIONS**		BT Level	CO
	16	(a)	(i)	An engine with 200 mm cylinder diameter and 300 mm stroke works on theoretical diesel cycle. The initial pressure and temperature of air used are 1 bar and 27℃. The cut-off is 8% if the stroke. Determine: i) pressures and temperature at all salient points, ii) Theoretical air standard efficiency, iii) Mean effective pressure, iv) power of the engine if the working cycles per minute are 380. Assume the compression ratio is 15 and working fluid is air.	15	K3	ME402.1
				(OR)			



		(b)	(i)	During the test on single cylinder oit engine, working on the four stroke cycle and fitted with a rope brake, the following readings are taken: Effective diameter of brake wheel = 630 mm ; Dead load on brake = 200 N; Spring balance reading = 30 N; Speed = 450 r.p.m. . Area of indicator diagram = 420 mm2 ; Length of indicator diagram • = 60 mm; Spring scale = 1.1 bar per mm Diameter of cylinder = 100 mm; Stroke = 150 mm; Quantity of oil used = 0.815kg/h; Calorific value of oil = 42 000 kJ/kg. Calculate brake power, indicat ed power, mechanical efficiency, brake thermal efficiency and brake spec jfic fuel consumption.	15	K3	ME402.5

Blooms Levels: K1 - Remember, K2 – Understand, K3 - Apply, K4 - Analyze, K5 - Evaluate, K6 – Create

FACULTY IN-CHARGE
Dr. B. Gobalakrishnan

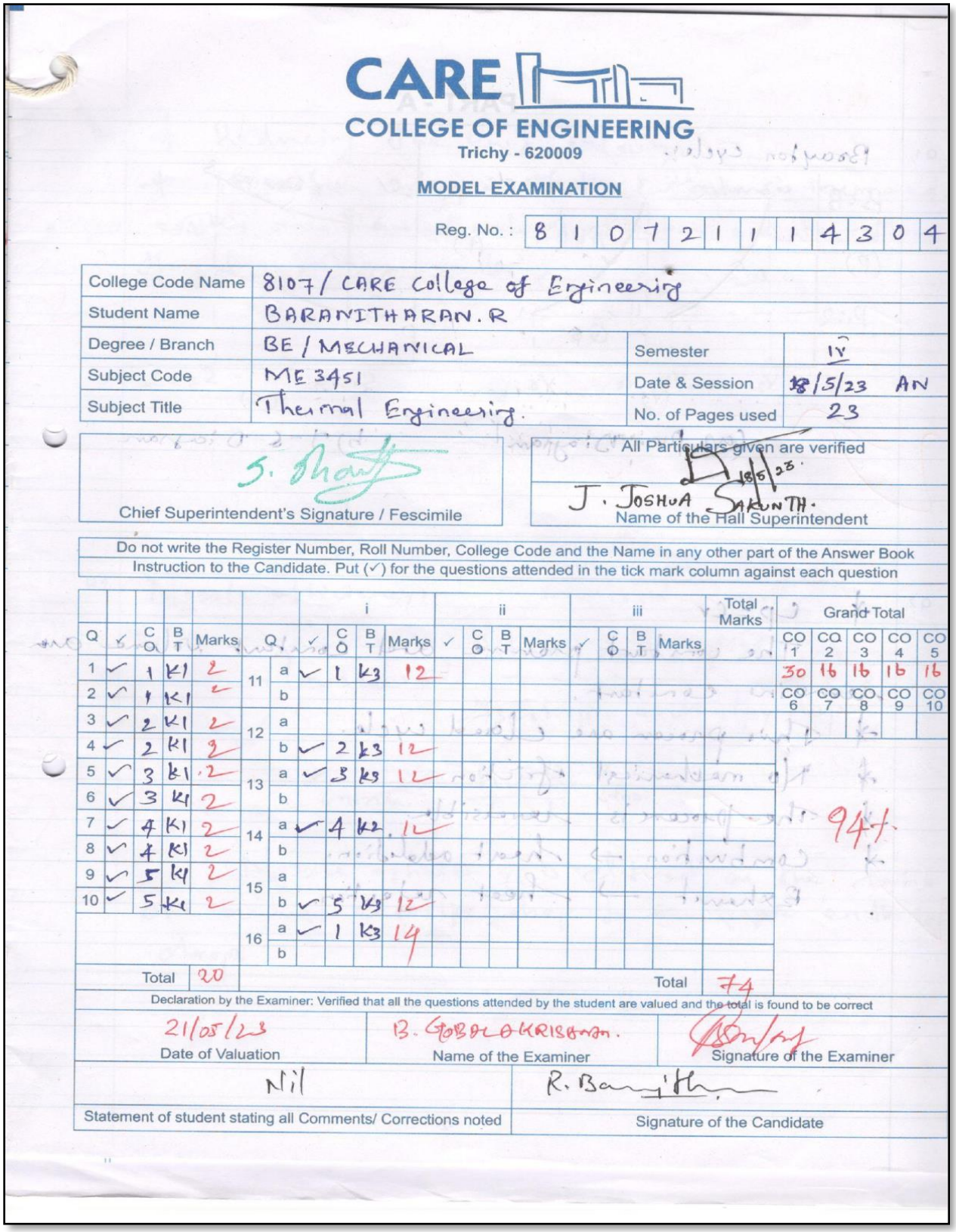
HOD
Dr.D.R.Rajkumar

PRINCIPAL
Dr.S.Shanthi

HEAD
Mechanical Engineering
CARE College of Engineering
Trichy -620 009

Fig.14. Model Exam Question Paper

SAMPLE



CARE
COLLEGE OF ENGINEERING
Trichy - 620009

MODEL EXAMINATION

Reg. No. : 8 1 0 7 2 1 1 1 4 3 0 4

College Code Name	8107 / CARE College of Engineering		
Student Name	BARANITHARAN. R		
Degree / Branch	BE / MECHANICAL	Semester	IV
Subject Code	ME 3451	Date & Session	18/5/23 AN
Subject Title	Thermal Engineering.	No. of Pages used	23

Chief Superintendent's Signature / Fescimile

All Particulars given are verified
18/5/23
J. JOSHUA SARUNTH.
Name of the Hall Superintendent

Do not write the Register Number, Roll Number, College Code and the Name in any other part of the Answer Book
Instruction to the Candidate. Put (✓) for the questions attended in the tick mark column against each question

Q	✓	CO	BT	Marks	Q		✓	CO	BT	Marks	✓	CO	BT	Marks	✓	CO	BT	Marks	Total Marks
							i				ii				iii				
1	✓	1	K1	2	11	a	✓	1	K3	12									
2	✓	1	K1	2		b													
3	✓	2	K1	2	12	a													
4	✓	2	K1	2		b	✓	2	K3	12									
5	✓	3	K1	2	13	a	✓	3	K3	12									
6	✓	3	K1	2		b													
7	✓	4	K1	2	14	a	✓	4	K2	12									
8	✓	4	K1	2		b													
9	✓	5	K1	2	15	a													
10	✓	5	K1	2		b	✓	5	K3	12									
					16	a	✓	1	K3	14									
						b													
Total				20														Total	74

Grand Total

CO 1	CO 2	CO 3	CO 4	CO 5
30	16	16	16	16

CO 6	CO 7	CO 8	CO 9	CO 10

94

Declaration by the Examiner: Verified that all the questions attended by the student are valued and the total is found to be correct

Date of Valuation	Name of the Examiner	Signature of the Examiner
21/05/23	B. GOBALAKRISHNAN.	

Statement of student stating all Comments/ Corrections noted	Signature of the Candidate
Nil	R. Baranitharan

Fig.15- Model Exam Sample

CLASS COMMITTEE MEETING

CARE
COLLEGE OF ENGINEERING
(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)
Accredited by NAAC with "A" Grade
27, Thayanur, Trichy – 620009

ACADEMIC YEAR: 2022-2023

DEPARTMENT OF SCIENCE AND HUMANITIES

CCM-1 /I YEAR/ CIVIL&MECH **Date: 19-05-2023**

CIRCULAR

CLASS COMMITTEE MEETING –I

The FIRST Class Committee Meeting for **I-Year /II-Semester** students will be held on **22-05-2023** at **12:40 PM** in EEE laboratory. Subject Handling Faculty members and student representatives are requested to attend the meeting.

AGENDA: -

1. Syllabus completion (Theory & Practical)
2. Availability of study Materials for all subjects
3. Attendance for regular classes & discipline of students
4. Communication & Aptitude training class feedback
5. Cycle test report & I semester result
6. Coaching class and revision Class
7. Students Grievances

Sl.No.	Name of the Faculty and Student Representatives	Position in the CCM	Signature
1.	Mrs.V.Mohanalakshmi	Chairperson	
2.	Mrs.A.Karthicka	Class co-ordinator	
3.	Maria Danial Pushparaj .P	Student Member	
4.	Abdul Rahman.S	Student Member	
5.	Edwin Roshan .S	Student Member	
6.	Gobinath.K	Student Member	
7.	Manikandan.P	Student Member	
8.	Vivin Lenin.O	Student Member	

19/5/2023

HEAD
Dept. of Science and Humanities
CARE College of Engineering
Trichy - 620 009.

Fig .16.Class committee Meeting Circular

CARE
COLLEGE OF ENGINEERING

(Approved by AICTE and Affiliated to Anna University, Chennai)
27, Thayanur, Trichy - 620009

Department of Science & Humanities
FIRST Class Committee Meeting Report
I YEAR / II SEM /A SECTION (ACADEMIC YEAR 2022-2023)

CHAIRPERSON: Mrs. V.Mohanalakshmi / AP / CIVIL
CLASS CO-ORDINATOR: Mrs A. Karthicka, AP/S&H
DATE: 22.05.2023
VENUE: EEE laboratory
TIME: 12.00 pm to 12.40 pm
Student Members:
01. Maria Danial Pushparaj . P, 02. Abdul Rahman. S, 03. Edwin Roshan. S, 04. Gobinath. K, 05. Manikandan. P, 06.Vivin Lenin. O.

SL. NO.	SUB. CODE	SUBJECT NAME	FACULTY NAME	SYLLABUS COMPLETION	REMARKS	FACULTY SIGNATURE
1	HS3252	Professional English - II	Mrs. A.Karthicka AP/ Eng	Unit 1 & 2 completed class test : planned on next week	no issues in teaching, require more class test. Activity : interview task	
2	MA3251	Statistics and Numerical Methods	Mr.G. Thavaselvan AP/ Maths	Unit 1: completed Unit 2: 90% completed class test :1 conducted	no issues in teaching. Assignment : problems	
4	PH3201	Physics for Civil Engineering	Dr. M Helenselvi AP / Phy	Unit 1: 90% completed Class test : 0	little bit speed in teaching and require videos. Assignment : not assigned	
5	PH3251	Materials Science	Dr. G Vinotha AP/ Phy	Unit 1: completed Unit 2: just started Class test :1 conducted	no issues in teaching, very strict and rude to the students. Assignment : not assigned	
6	BE3252	Basic Electrical,Electronics and Instrumentation Engineering	Ms.R.Elavarasi AP/ECE	Unit 1: completed Unit 2: just started Class test :0	staff getting confused while teaching, want the staff to be well prepared to class. Assignment : problems	
7	BE3251	Basic Electrical and Electronics Engineering	Mr. R. Saravanan AP /EEE	Unit 1: completed unit 2: 10% completed class test :1 conducted	Combined class for mech and AI&DS in CR 13, the class room arrangement is not good to listen the class. Need brief explanation on board. Assignment : problems	
8	GE3251	Engineering Graphics	Mr. S Maheswaran AP / Mech	Unit 1: 90% completed class test :to be conducted	no issues in teaching, require videos to understand/imagine better. Be soft and avoid	
9	GE3252	தமிழரும் தொழில்நுட்பமும் / Tamils and Technology	Dr.K.Senthil AP/Tamil	Unit 1: 90% completed class test :to be conducted	no issues in teaching. Assignment : not assigned	
10	GE3271	Engineering Practices Laboratory	Mr. S Maheswaran AP / Mech & Ms.R.Elavarasi AP/ECE	ECE lab - 3/9 Mech lab - 6/9	no issues	
11	BE3272	Basic Electrical, Electronics and Instrumentation Engineering Laboratory	Mr.G. Venkatesan AP/EEE	conducted : 1/12	no issues	
12	BE3271	Basic Electrical and Electronics Engineering Laboratory	Mr.G. Venkatesan AP/EEE	conducted : 1/12	no issues	
13	GE3272	Communication Laboratory / Foreign Language	Mrs. A.Karthicka AP/ Eng	conducted : 3/20	no issues	
14		Training & Placement	Mr.T Vijayakumar (APT) & Mrs. Amba Bharati S Desai	Apptitude and communication	no issues	

General Comments given by Students
1. Require more quantity of reference books for 2021 reg, in library.
2. Require 2 continuous hours for sports.
3. In CR 21 & 23, 1 fan not working and require extra fan.

HEAD
HoD
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Trichy - 620 009.

Fig .17. Syllabus Completion

CARE COLLEGE OF ENGINEERING
TRICHY - 620009
Department of Science & Humanities
ACADEMIC YEAR 2022-23(EVEN SEMESTER)
CCM 1 Action Taken Report

Sl.No.	Section/Branch	Sub.Code/ Name	Faculty Name	Students Comments	Action Taken Report	Faculty Signature
1	A Sec/CE&MEC	HS 3252/PE II	Mrs.A.Karthicka,Eng	More Class Tests	Informed to faculty to conduct class test periodically	
2	A sec /CE& MEC	PH 3201/PCE	Dr.M.Helen Selvi,Phy	Little bit speed in teaching	Asked her to teach slowly	
3	A sec /CE& MECH	PH 3251/PIS	Dr.G.Vinodha,Phy	Very strict and rude to the student	Informed her to deal the students in polite way	
4	A sec /CE& MECH	BE 3252/BEE&IE	Ms.R.Elavarasi,ECE	Staff is getting confused while teaching, want the staff to be well prepared to class.	Informed to staff to prepare before going to the class. Asked her to teach simply to the students	
5	B sec/CSE 1	GE 3251/EG	Mrs.R.Nandhini,Civil	Can be taught little bit Slow	Informed to her teach slowly	
6	B sec/CSE 1	CS 3271/C Lab	Mrs.M.Kalaiselvi,AD	Need More explanation for Lab p	Asked her to give explainations for lab programs	
7	C sec/CSE 2	BE 3251/BEEE	Ms.R.Elavarasi,ECE	Students expected notes for the course and they need more interactive sessions.	Asked her to interactive with students during lecture periods	
8	C sec/CSE 2	CS 3251/C Programming	Mrs.S.Nageshwari,AI	Biology studied students are struggling to understand the subject concepts, hence they	Informed to her teach basic concepts and relevant examples for easy	

CARE COLLEGE OF ENGINEERING
TRICHY - 620009
Department of Science & Humanities
ACADEMIC YEAR 2022-23(EVEN SEMESTER)
CCM 1 Action Taken Report

Sl.No.	Section/Branch	Sub.Code/ Name	Faculty Name	Students Comments	Action Taken Report	Faculty Signature
9	D sec/AI&DS 1	PH 3256/PIS	Dr.G.Vinodha,Phy	Find difficult to learn the derivations,Need little more clear explanation	Asked her to teach derivation part step by step with clear explaination	
10	D sec/AI&DS 1	BE 3251/BEEE	Mr.R.Saravanan,EEE	New subject-Basic need to be explained by solving more problems	Discussed with him to teach from basics and asked to solve more problems in	
11	D sec/AI&DS 1	AD 3251/DSD	Mrs.D.Kiruthiga,AD	Concepts understood but little fast.Don't know how to study in the form of questions	Informed to her teach little bit slow and asked to explain how to study/answer	
12	sec/AI&DS 2 & E	HS 3252/PE-II	Mrs.M.Jeevitha,Eng	Need clarity while teaching. Not able to pickup the class	Informed to increase the auditability and clarity of teaching improvement	
13	E Sec/AI&DS 2	PH 3256/PIS	Dr.G.Vinodha,Phy	Step by step explanation needed while Derivation	Asked her to teach derivation part step by step with clear explaination	
14	Sec/AI&Ds 2 & E	GE 3251/EG	Mrs.R.Nandhini,Civil	Fast Teaching. Step by Step explanation needed for problems	Informed to her teach slowly with step by step explainations	

HOD-S&H

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Dept. of Science and Humanities
CARE College of Engineering
Trichy - 620 009.

PRINCIPAL
PRINCIPAL
CARE COLLEGE OF ENGINEERING
No. 27, Thayanur, Trichy-620 009

Fig. 18. Action Taken Report

2.5.1.2 PRACTICAL COURSES:

CARE COLLEGE OF ENGINEERING

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#27, Thayanur, Tiruchirappalli - 620009

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

BONAFIDE CERTIFICATE

Certified that this is the bonafide record of the work done by BALA. P Reg.No. 810721104007

Studying II year of Computer Sciences Engineering branch for the Artificial Intelligence & machine learning Laboratory during the academic year 2023–2024.

28/11/23.
Signature of the lab in-charge

Signature of HOD/CSE

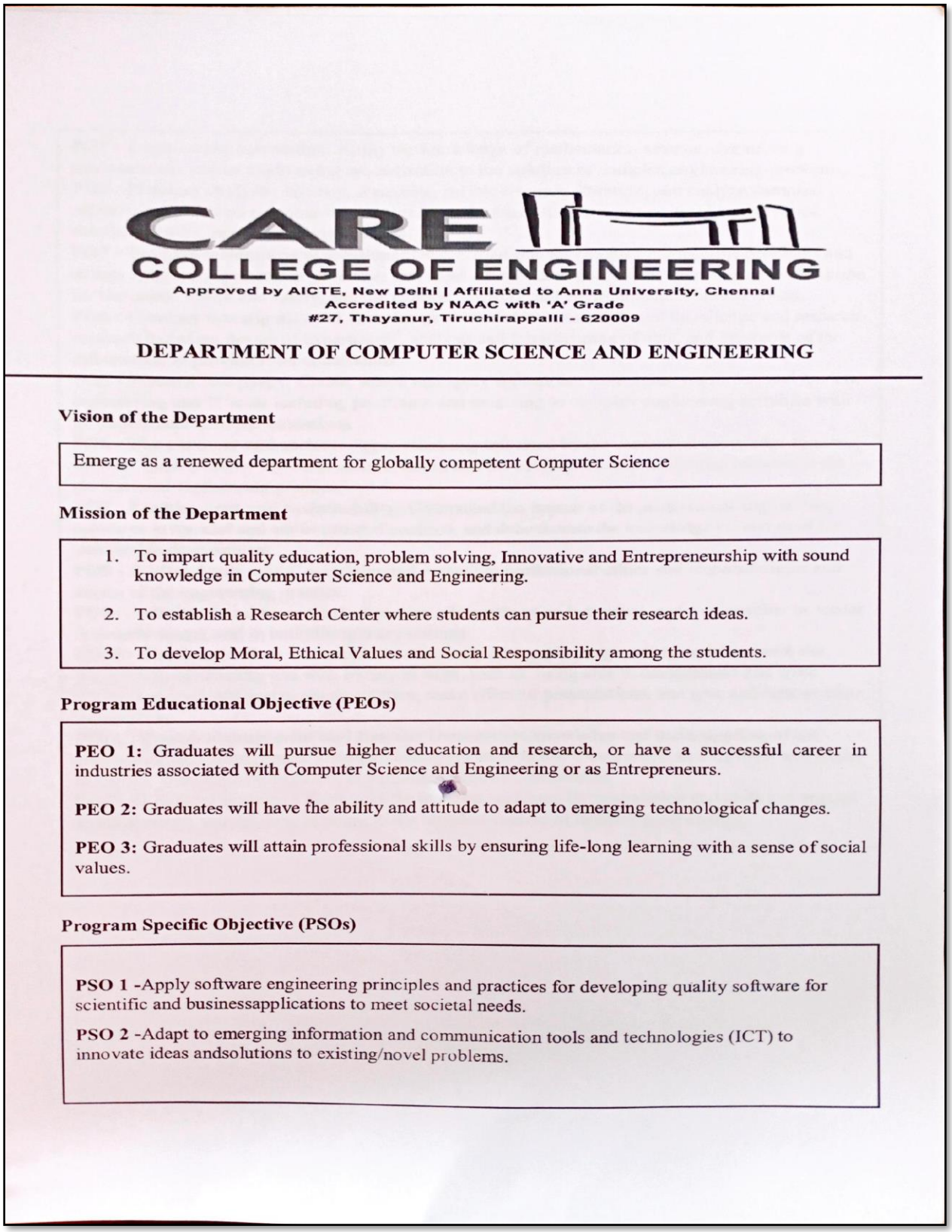
Submitted for the university examination held on

28/11/2023 (AN)

28/11/23
Internal Examiner

28/11/23
External Examiner

Fig.19. Bonafide Certificate



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#27, Thayanur, Tiruchirappalli - 620009

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Vision of the Department

Emerge as a renewed department for globally competent Computer Science

Mission of the Department

1. To impart quality education, problem solving, Innovative and Entrepreneurship with sound knowledge in Computer Science and Engineering.
2. To establish a Research Center where students can pursue their research ideas.
3. To develop Moral, Ethical Values and Social Responsibility among the students.

Program Educational Objective (PEOs)

PEO 1: Graduates will pursue higher education and research, or have a successful career in industries associated with Computer Science and Engineering or as Entrepreneurs.

PEO 2: Graduates will have the ability and attitude to adapt to emerging technological changes.

PEO 3: Graduates will attain professional skills by ensuring life-long learning with a sense of social values.

Program Specific Objective (PSOs)

PSO 1 -Apply software engineering principles and practices for developing quality software for scientific and businessapplications to meet societal needs.

PSO 2 -Adapt to emerging information and communication tools and technologies (ICT) to innovate ideas andsolutions to existing/novel problems.

Fig.20- Vision, Mission of Department

PO1 - Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2 - Problem analysis: Identify, formulate, review 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: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4 - Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to 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 with an understanding of the limitations.
PO6 - The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
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 society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11 - Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12 - Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Fig.21- Programme Outcomes

CS3491 ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

OBJECTIVES:

- Study about uninformed and Heuristic search techniques.
- Learn techniques for reasoning under uncertainty
- Introduce Machine Learning and supervised learning algorithms
- Study about ensembling and unsupervised learning algorithms
- Learn the basics of deep learning using neural networks

LIST OF EXPERIMENTS

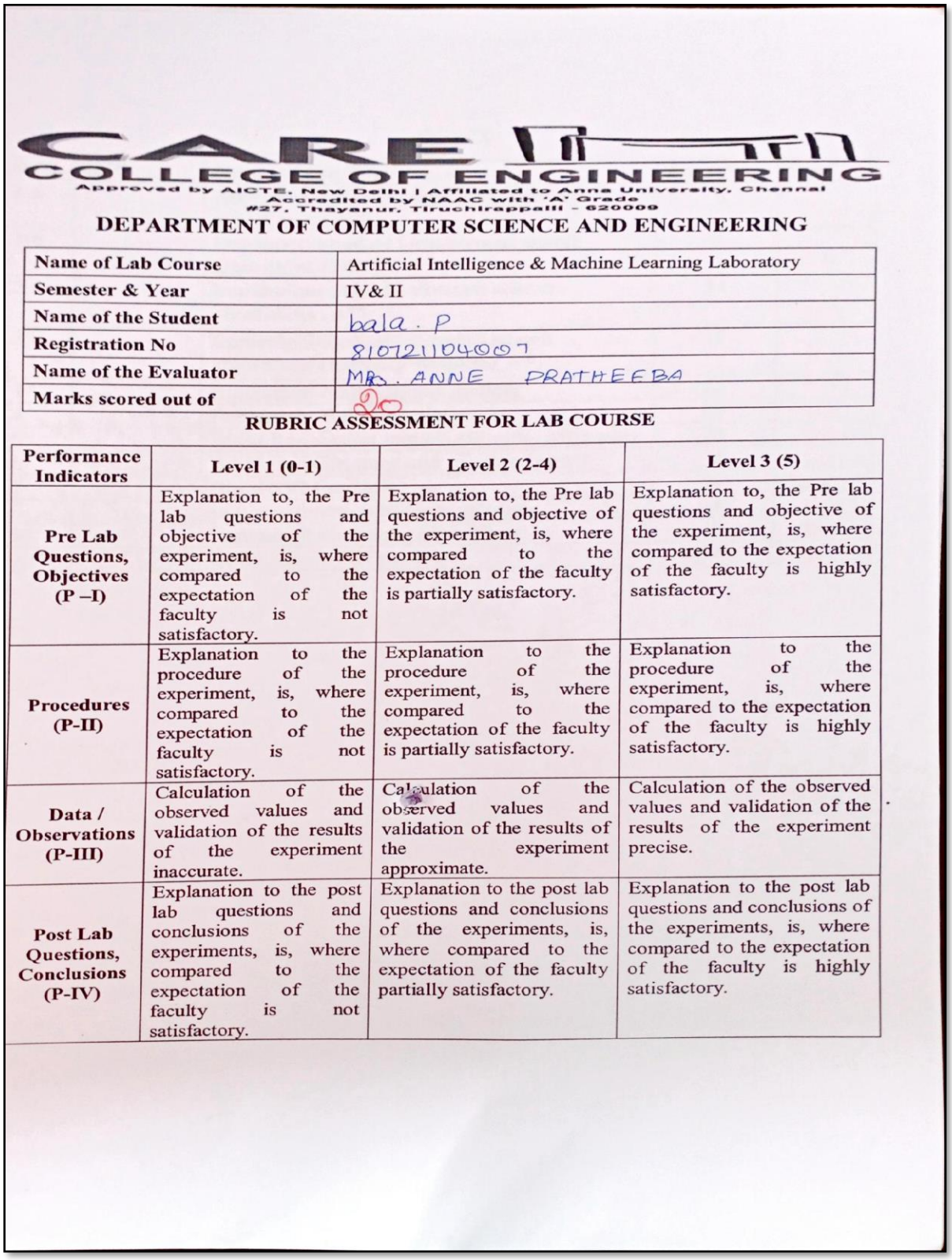
1. Implementation of Uninformed search algorithms (BFS, DFS).
2. Implementation of Informed search algorithms (A*, memory-bounded A*).
3. Implement naïve Bayes models.
4. Implement Bayesian Networks.
5. Build Regression models.
6. Build decision trees and random forests.
7. Build SVM models.
8. Implement ensembling techniques.
9. Implement clustering algorithms,
10. Implement EM for Bayesian networks.
11. Build simple NN models.
12. Build deep learning NN models:

OUTCOMES:

At the end of this course, the students will be able to:

- Use appropriate search algorithms for problem solving
- Apply reasoning under uncertainty
- Build supervised learning models
- Build ensembling and unsupervised models
- Build deep learning neural network models

Fig. 22- List of Experiments



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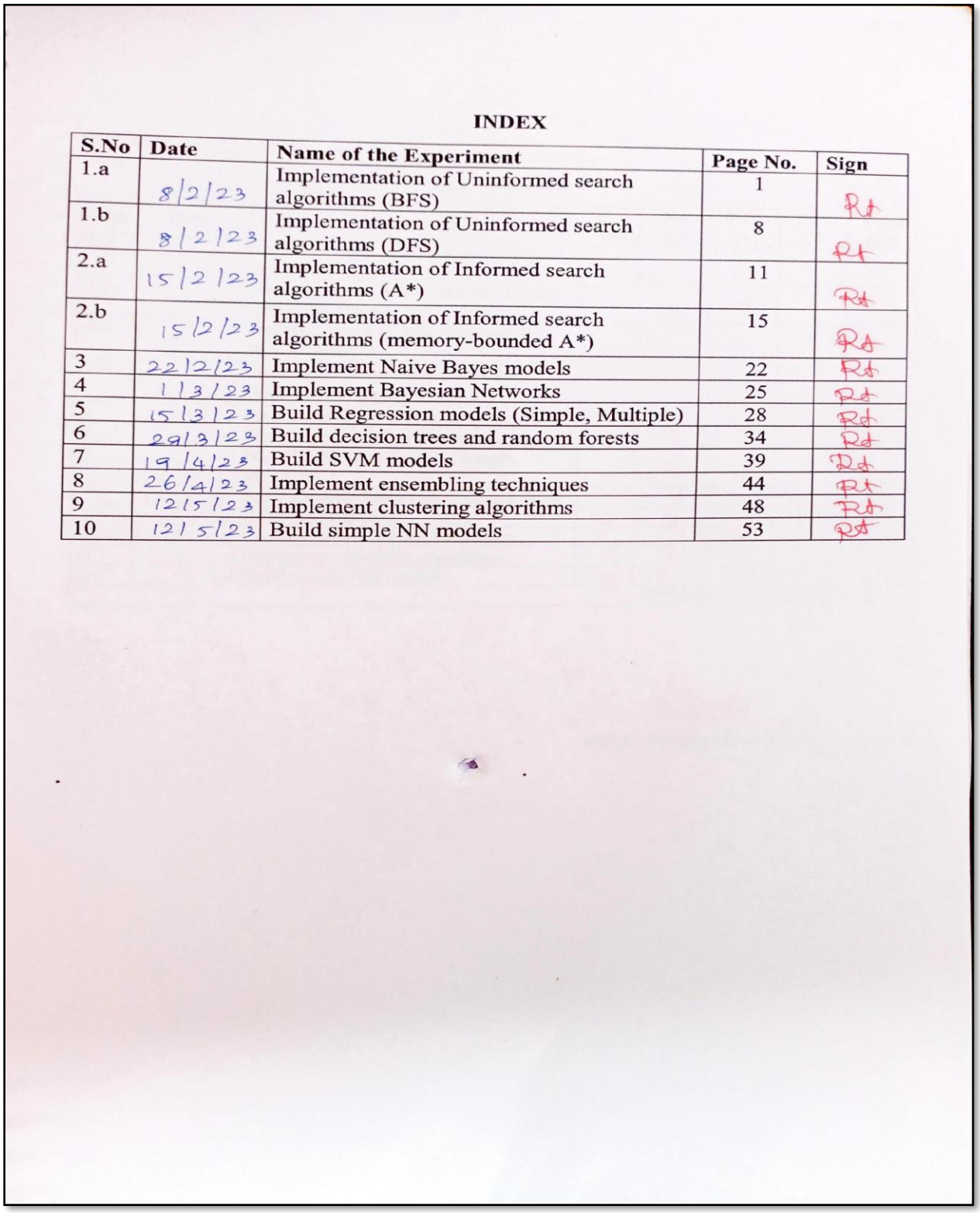
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Name of Lab Course	Artificial Intelligence & Machine Learning Laboratory
Semester & Year	IV& II
Name of the Student	bala. P
Registration No	810721104007
Name of the Evaluator	MRS. ANNE PRATHEEBA
Marks scored out of	20

RUBRIC ASSESSMENT FOR LAB COURSE

Performance Indicators	Level 1 (0-1)	Level 2 (2-4)	Level 3 (5)
Pre Lab Questions, Objectives (P –I)	Explanation to, the Pre lab questions and objective of the experiment, is, where compared to the expectation of the faculty is not satisfactory.	Explanation to, the Pre lab questions and objective of the experiment, is, where compared to the expectation of the faculty is partially satisfactory.	Explanation to, the Pre lab questions and objective of the experiment, is, where compared to the expectation of the faculty is highly satisfactory.
Procedures (P-II)	Explanation to the procedure of the experiment, is, where compared to the expectation of the faculty is not satisfactory.	Explanation to the procedure of the experiment, is, where compared to the expectation of the faculty is partially satisfactory.	Explanation to the procedure of the experiment, is, where compared to the expectation of the faculty is highly satisfactory.
Data / Observations (P-III)	Calculation of the observed values and validation of the results of the experiment inaccurate.	Calculation of the observed values and validation of the results of the experiment approximate.	Calculation of the observed values and validation of the results of the experiment precise.
Post Lab Questions, Conclusions (P-IV)	Explanation to the post lab questions and conclusions of the experiments, is, where compared to the expectation of the faculty is not satisfactory.	Explanation to the post lab questions and conclusions of the experiments, is, where compared to the expectation of the faculty partially satisfactory.	Explanation to the post lab questions and conclusions of the experiments, is, where compared to the expectation of the faculty is highly satisfactory.

Fig. 23- Rubric Assessment for Lab



INDEX

S.No	Date	Name of the Experiment	Page No.	Sign
1.a	8/2/23	Implementation of Uninformed search algorithms (BFS)	1	
1.b	8/2/23	Implementation of Uninformed search algorithms (DFS)	8	
2.a	15/2/23	Implementation of Informed search algorithms (A*)	11	
2.b	15/2/23	Implementation of Informed search algorithms (memory-bounded A*)	15	
3	22/2/23	Implement Naive Bayes models	22	
4	1/3/23	Implement Bayesian Networks	25	
5	15/3/23	Build Regression models (Simple, Multiple)	28	
6	29/3/23	Build decision trees and random forests	34	
7	19/4/23	Build SVM models	39	
8	26/4/23	Implement ensembling techniques	44	
9	12/5/23	Implement clustering algorithms	48	
10	12/5/23	Build simple NN models	53	

Fig. 24- Index

Register NO: 810721104007.

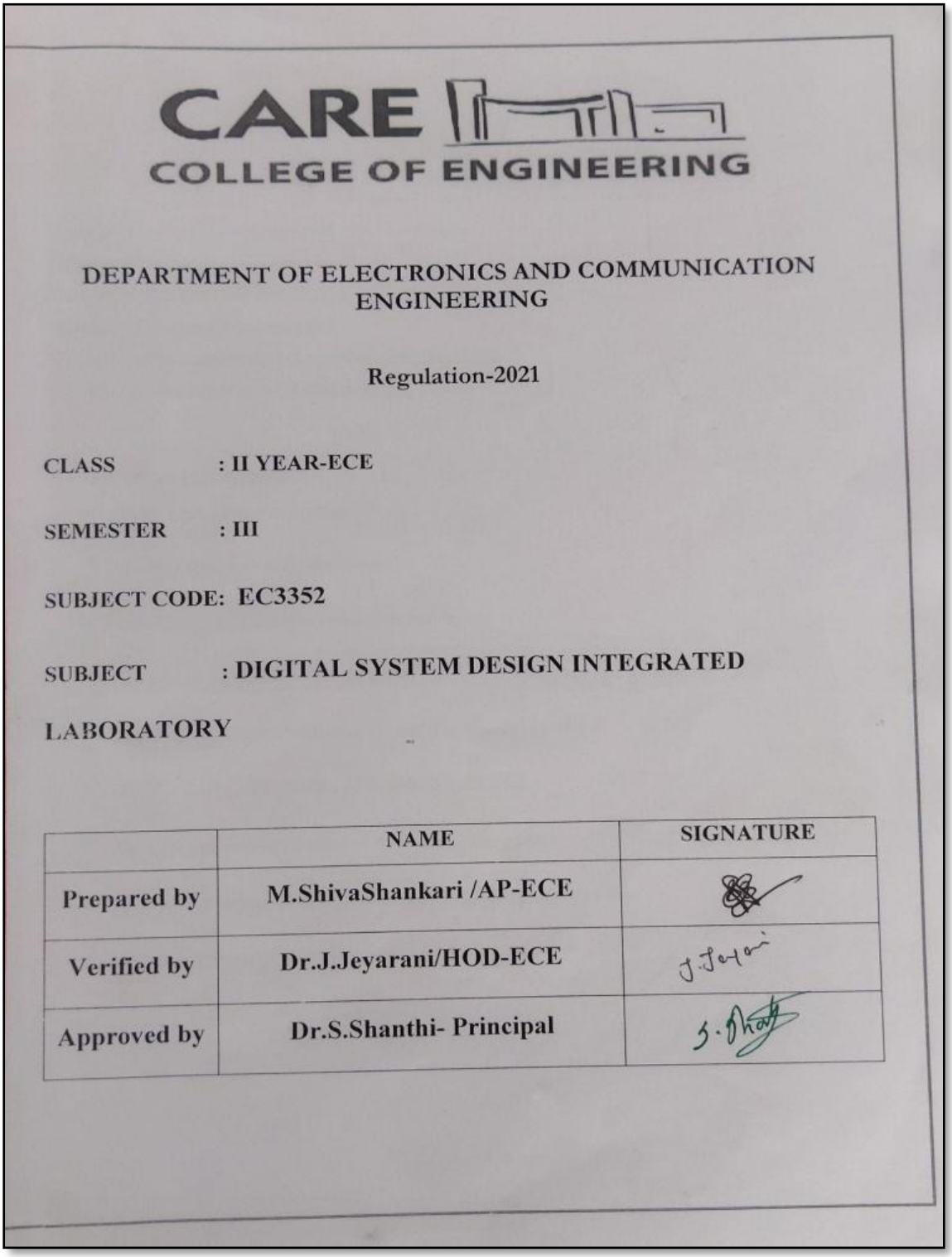
Assessment Sheet

S.No	Date	Experiment	P-I (5)	P-II (5)	P-III (5)	P-IV (5)	Total (20)
1.a	8/2/23	Implementation of Uninformed search algorithms (BFS)	5	5	5	5	20
1.b	8/2/23	Implementation of Uninformed search algorithms (DFS)	5	5	5	5	20
2.a	15/2/23	Implementation of Informed search algorithms (A*)	5	5	5	5	20
2.b	15/2/23	Implementation of Informed search algorithms (memory-bounded A*)	5	5	5	5	20
3	22/2/23	Implement Naive Bayes models	5	5	5	5	20
4	1/3/23	Implement Bayesian Networks	5	5	5	5	20
5	15/3/23	Build Regression models (Simple, Multiple)	5	5	5	5	20
6	29/3/23	Build decision trees and random forests	5	5	5	5	20
7	19/3/23	Build SVM models	5	5	5	5	20
8	26/4/23	Implement ensembling techniques	5	5	5	5	20
9	12/5/23	Implement clustering algorithms	5	5	5	5	20
10	12/5/23	Build simple NN models	5	5	5	5	20
					TOTAL (OUT OF 20)		20

21/11/23

SIGNATURE OF THE EVALUATOR

Fig. 25- Assessment



CARE

COLLEGE OF ENGINEERING

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Regulation-2021

CLASS : II YEAR-ECE

SEMESTER : III

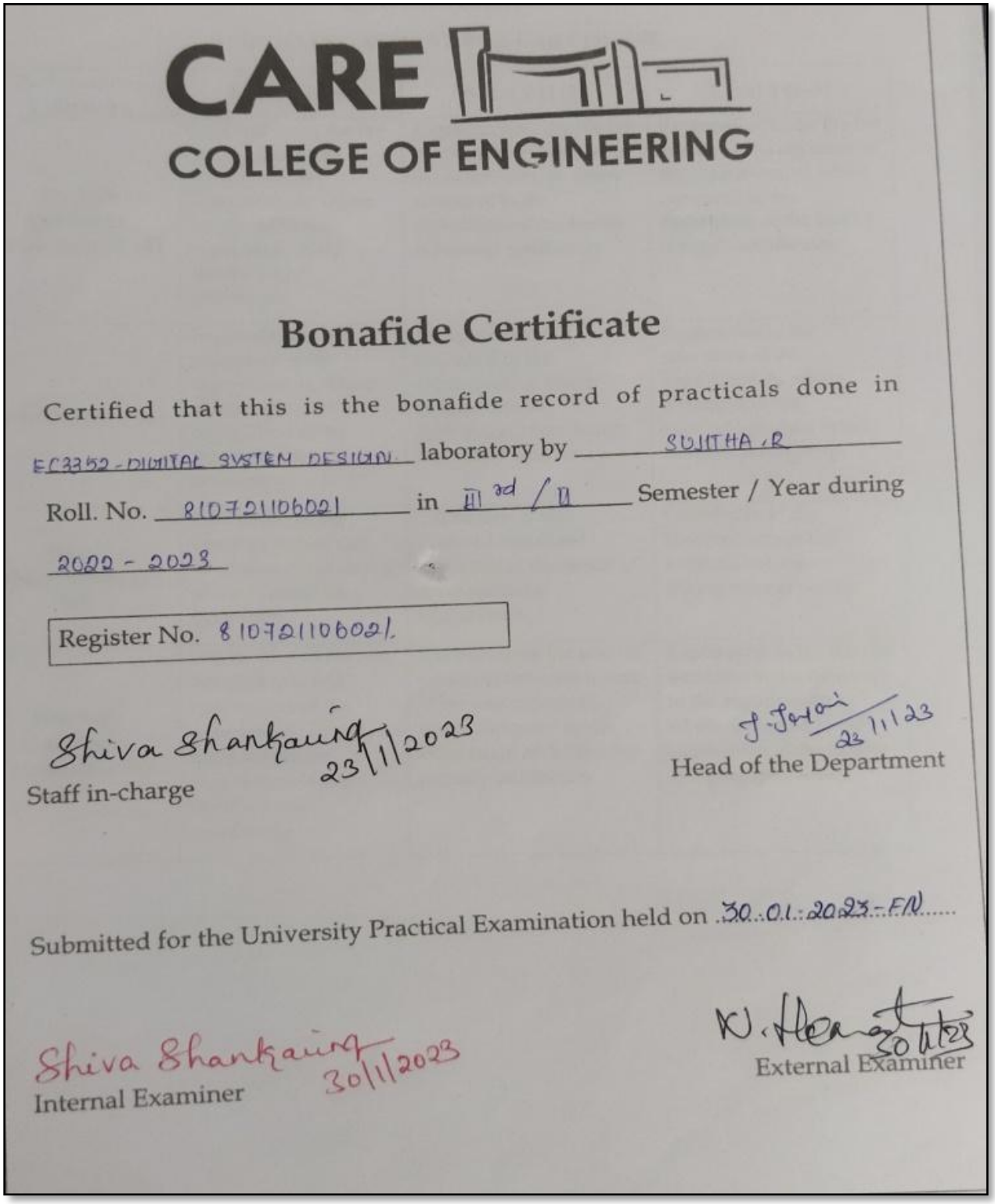
SUBJECT CODE: EC3352

SUBJECT : DIGITAL SYSTEM DESIGN INTEGRATED LABORATORY

	NAME	SIGNATURE
Prepared by	M.ShivaShankari /AP-ECE	
Verified by	Dr.J.Jeyarani/HOD-ECE	
Approved by	Dr.S.Shanthi- Principal	

Fig.26 – Lab Manual Front Page

SAMPLE



CARE
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Bonafide Certificate

Certified that this is the bonafide record of practicals done in EC3352 - DIGITAL SYSTEM DESIGN laboratory by SUJITHA.R

Roll. No. 810721106021 in III 3rd / II Semester / Year during 2022 - 2023

Register No. 810721106021

Shiva Shankaring 23/11/2023
Staff in-charge

J. Jayaraj 23/11/23
Head of the Department

Submitted for the University Practical Examination held on 30.01.2023-FN

Shiva Shankaring 30/11/2023
Internal Examiner

30/1/23
External Examiner

Fig.27- Sample Record

MODEL LAB:

CARE COLLEGE OF ENGINEERING, TRICHY

DEPARTMENT OF ECE

EC3401-NETWORKS & SECURITY INTEGRATED LAB

SEM /YEAR:IV/II **DATE:11.05.2023&F.N**

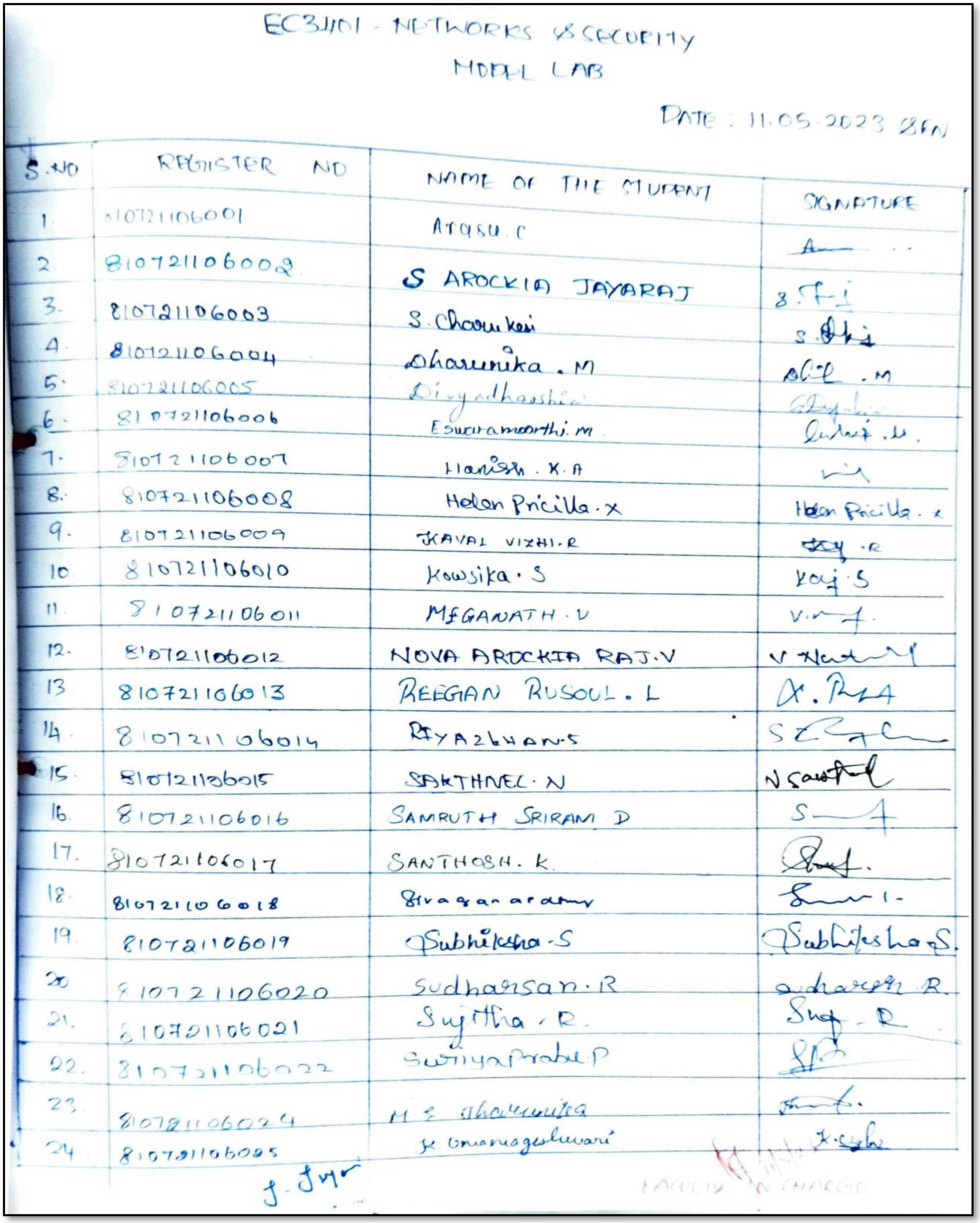
1. Implement the Data Link Layer framing methods using C
   i) Bit stuffing (ii) Character stuffing (100)
2. Implementation of Error Detection / Correction Techniquesusing C
   i) LRC, (ii) CRC, (iii) Hamming code (100)
3. Implementation of Stop and Wait Protocols using C. (100)
4. Implementation of Sliding Window Protocols using C. (100)
5. Implementation of Go back-N and Selective Repeat Protocols using C (100)
6. Implementation of Distance Vector Routing algorithm (Routing Information Protocol) (Bellman-Ford) using C (100)
7. Implementation of Link State Routing algorithm (Open Shortest Path First) with 5 nodes (Dijkstra's) using C (100)
8. Data encryption and decryption using Data Encryption Standard algorithm using C (100)
9. Data encryption and decryption using RSA (Rivest, Shamir and Adleman) algorithm using C (100)
10. Implement Client Server model using FTP protocol using C (100)
11. Implement and realize the Network Topology - Star, Bus and Ring using NS2. (100)
12. Implement and perform the operation of CSMA/CD and CSMA/CA using NS2. (100)

HOD 10/5/23

Dr.J.JEYARANI
Professor & Head
Department of ECE
CARE College of Engineering
Trichy - 620 009.

INTERNAL EXAMINER 10/5/23

Fig.28- Model Lab question



EC3401 - NETWORKS & SECURITY
MODEL LAB

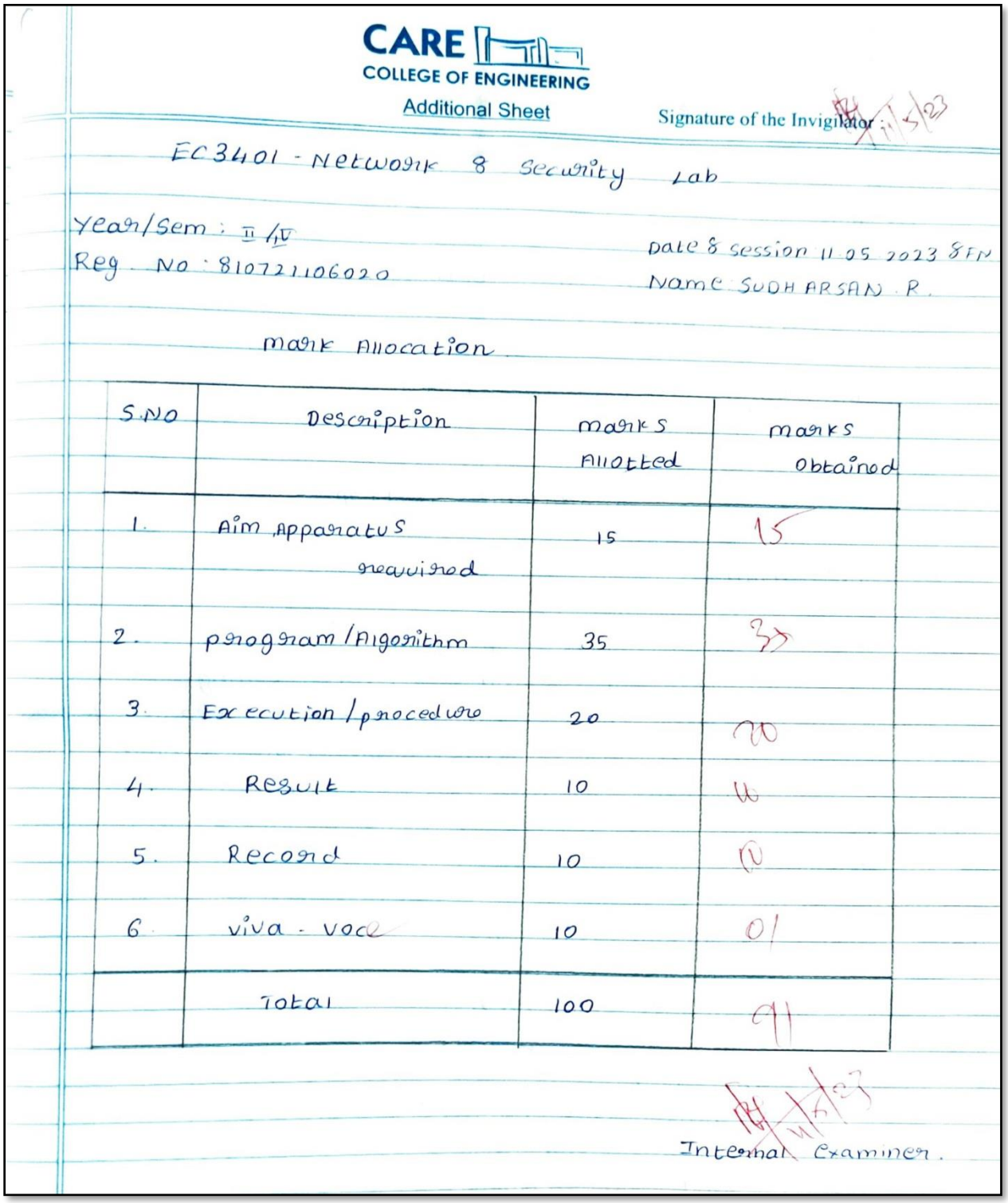
DATE : 11.05.2023 & FN

S.NO	REGISTER NO	NAME OF THE STUDENT	SIGNATURE
1.	810721106001	Arasu. C	[illegible]
2.	810721106002	S AROCKIA JAYARAJ	[illegible]
3.	810721106003	S. Charukesi	[illegible]
4.	810721106004	Dharunika. M	[illegible]
5.	810721106005	Divyadharshini	[illegible]
6.	810721106006	Eswaramoorthi. M	[illegible]
7.	810721106007	Harish. K. A	[illegible]
8.	810721106008	Helen Pricilla. X	Helen Pricilla. X
9.	810721106009	KAVAL VIZHI. R	[illegible]
10.	810721106010	Kowsika. S	[illegible]
11.	810721106011	MEGANATH. V	[illegible]
12.	810721106012	NOVA AROCKIA RAJ. V	[illegible]
13.	810721106013	REEGAN RUSOUL. L	[illegible]
14.	810721106014	RIYAZKHAN. S	[illegible]
15.	810721106015	SAKTHIVEL. N	[illegible]
16.	810721106016	SAMRUTH SRIRAM D	[illegible]
17.	810721106017	SANTHOSH. K.	[illegible]
18.	810721106018	Siva ganaradhay	[illegible]
19.	810721106019	Subhiksha. S	Subhiksha. S.
20.	810721106020	Sudharsan. R	Sudharsan R.
21.	810721106021	Sujitha. R.	[illegible]
22.	810721106022	Suriyaprabu. P	[illegible]
23.	810721106024	M. E. Dharunika	[illegible]
24.	810721106025	K. Gnanageshwari	[illegible]

J. Jay

FACULTY IN CHARGE

Fig.29- Model Lab Attendance



CARE
COLLEGE OF ENGINEERING
Additional Sheet

Signature of the Invigilator :

EC3401 - Network & Security Lab

Year/Sem : II / IV

Date & Session 11.05.2023 AFN

Reg. No : 810721106020

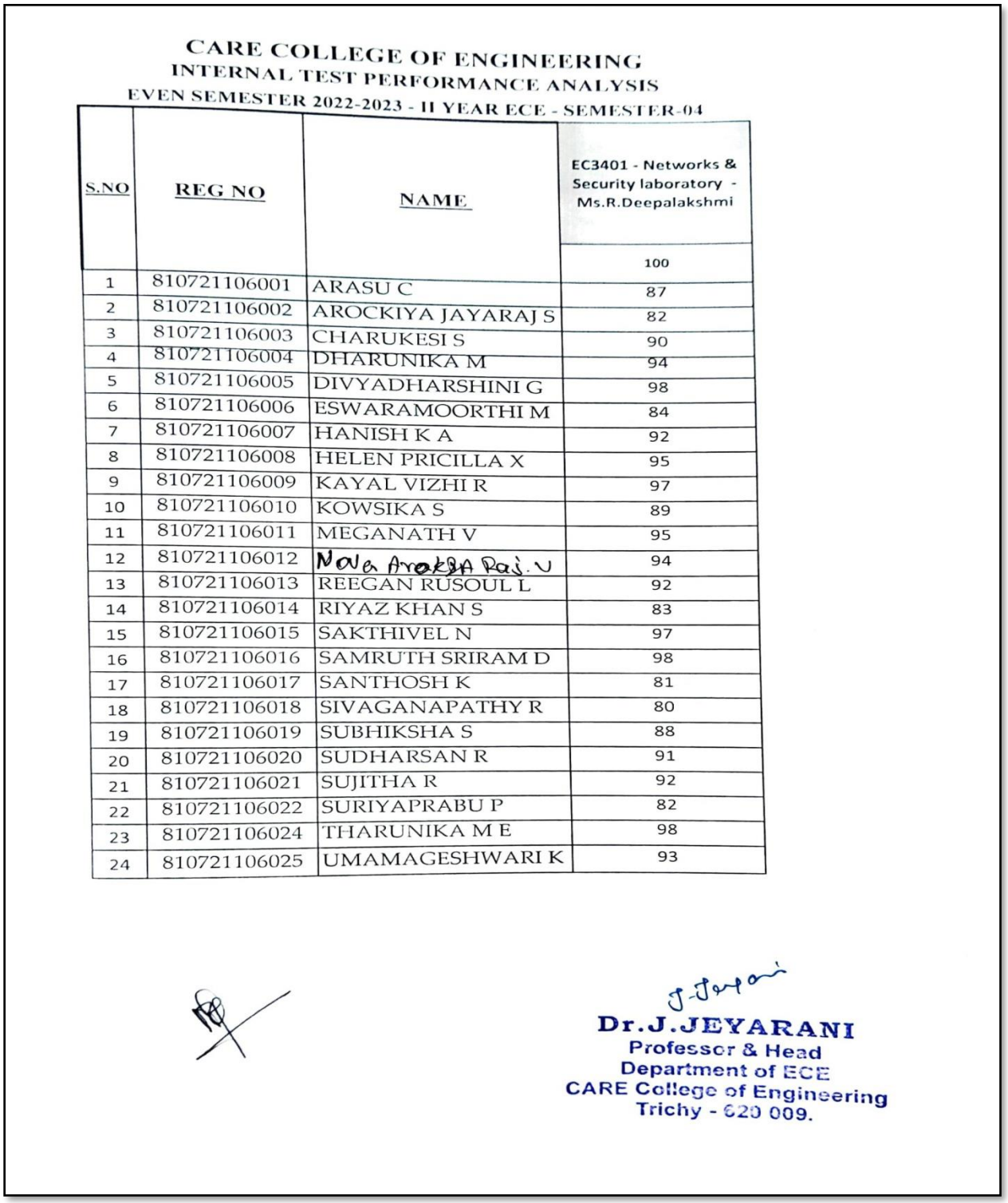
Name SUDHARSAN. R.

Mark Allocation

S.NO	Description	marks Allotted	marks obtained
1.	Aim Apparatus required	15	15
2.	program / Algorithm	35	35
3.	Execution / procedure	20	20
4.	Result	10	10
5.	Record	10	10
6.	viva - voce	10	01
	Total	100	91

Internal Examiner.

Fig.30- Sample answer sheet



CARE COLLEGE OF ENGINEERING
INTERNAL TEST PERFORMANCE ANALYSIS
EVEN SEMESTER 2022-2023 - II YEAR ECE - SEMESTER-04

S.NO	REG NO	NAME	EC3401 - Networks & Security laboratory - Ms.R.Deepalakshmi
			100
1	810721106001	ARASU C	87
2	810721106002	AROCKIYA JAYARAJ S	82
3	810721106003	CHARUKESI S	90
4	810721106004	DHARUNIKA M	94
5	810721106005	DIVYADHARSHINI G	98
6	810721106006	ESWARAMOORTHI M	84
7	810721106007	HANISH K A	92
8	810721106008	HELEN PRICILLA X	95
9	810721106009	KAYAL VIZHI R	97
10	810721106010	KOWSIKA S	89
11	810721106011	MEGANATH V	95
12	810721106012	Nova Arokya Raj. V	94
13	810721106013	REEGAN RUSOUL L	92
14	810721106014	RIYAZ KHAN S	83
15	810721106015	SAKTHIVEL N	97
16	810721106016	SAMRUTH SRIRAM D	98
17	810721106017	SANTHOSH K	81
18	810721106018	SIVAGANAPATHY R	80
19	810721106019	SUBHIKSHA S	88
20	810721106020	SUDHARSAN R	91
21	810721106021	SUJITHA R	92
22	810721106022	SURIYAPRABU P	82
23	810721106024	THARUNIKA M E	98
24	810721106025	UMAMAGESHWARI K	93

Dr.J.JEYARANI
Professor & Head
Department of ECE
CARE College of Engineering
Trichy - 620 009.

Fig.31- Model Lab Marks

2.5.1.3 PROJECT:

A. Process for monitoring and evaluation

- The project review committee consists of senior faculty members and supervisors concerned.
- The committee monitors the progress of projects from the beginning to submission.
- It thoroughly scrutinizes the performance and the involvement of each student and helps the student to execute the project in the proper direction by conducting internal reviews.
- There shall be three reviews (each 100 Marks) during the project period. The students shall make a presentation on the progress made by them before the committee during every review.
- The total marks obtained in the three reviews shall be reduced for 20 marks and rounded to the nearest integer.
- **Review evaluation pattern:**
    - Zeroth review (R0): Zeroth review is conducted in 7th semester for approval of project title.
    - First review (R1): Presentation of literature survey is done to compare existing system and proposed plan of project, execution method and projection of simulation tools used.
    - Second review (R2): Design of the project, experimentation and implementation, results, compilation and report writing are verified.
    - Third review (R3): A model project viva voce is conducted for the complete presentation of the project. Draft project report to be submitted.

The evaluation Guidelines in each review are as follows.

Review 1

Criteria / Parameter	Problem statements - GA	Study of the Existing Systems - GA	Proposed Methods - IA	Computational framework and Module Details - GA	Presentation & Viva - IA
Marks Allocation	20	20	20	20	20

Review 2

Criteria / Parameter	Tools used for implementation - GA	Optimization - GA	Progress of the Project - IA	Presentation - IA	Viva - IA
Marks Allocation	20	20	20	20	20

Review 3

Criteria / Parameter	Usage of Procedure for experimenting the Project - GA	Results & Discussion - GA	Demonstration of the Project - IA	Documentation & Project Report Submission – GA + IA	Presentation &Viva – GA+ IA
Marks Allocation	20	20	20	20	20

Rubrics	Fair	Satisfactory	Average	Good	Very Good
Marks	0 - 4	5 - 8	9 - 12	13 - 16	17 - 20

- The project report shall carry a maximum of 30 marks. The project report shall be submitted as per the approved guidelines given by Director, Academic Courses, Anna University. The same marks shall be awarded to every student within the project group for the project report.
- The viva-voce examination shall carry 50 marks. Marks are awarded to each student of the project group based on the individual performance in the viva-voce examination.

Scheme of evaluation – Student Project

Review I	Review II	Review III	End semester Examinations					Total
			Thesis Submission (30)		Viva voce examination (50)			
			Internal	External	Internal	External	Supervisor	
5	7.5	7.5	15	15	15	20	15	100

B. Process to assess individual and team performance

As mentioned earlier, reviews are conducted to assess the performance of the individual and the team. Interaction and updating the progress of the project to the guide can also be taken into account while assessing the individual student performance in presentation.

CIRCULAR

CARE

COLLEGE OF ENGINEERING

Trichy 620 009

Department of Mechanical Engineering

ME8811 PROJECT WORK – Reviews

CIRCULAR **25-01-2023**

This is to inform you all that, as per AU 2017 Regulation and the direction of Principal, I constitute a three member review committee including Project Coordinator to assess project work of each batch of final year students. There shall be three reviews during the semester by the review committee. Project Review dates and the review committee members are given below. The student shall make presentation on the progress made by him / her before the committee for about 10 minutes per Team and 5 mins for question and answer. The total marks obtained in the three reviews shall be reduced for 20 marks.

The presentation should include the following details:-

Review 0	Review 1	Review 2	Review 3
Batch Formation	Abstract	Methodology	Results and Discussion
Fixing Internal Guide	Literature Survey	Experimental Work	Conclusion & References
Project Title	Problem Statement	Results	Report Draft copy

REVIEW DATES		Time & Venue
Review 0	03-02-2023	11 am & Manufacturing Technology Laboratory
Review 1	17-02-2023	
Review 2	02-03-2023	
Review 3	17-03-2023	

Project Coordinator	1. Mr.S.Karthik/AP/Mech
Members	2. Dr.D.R.Rajkumar /ASP/Mech 3. Mr.P.Dinesh Kumar/AP/Mech

Faculty Members (Internal Guides) and others as per schedule being sent separately are requested to attend the Review and offer suggestions to bring out Projects worthy.

Thank you

Copy to:

1) Department Notice Board
2) IV Yr Class Room Notice Board

HoD/Mechanical

HEAD
Mechanical Engineering
CARE College of Engineering
Trichy -620 009

Fig.32- Project work review schedule 2022-2023

Table 1: Project Batch Titles

Batch No.	Name of Student	Title of the Project	Name of guide	Domain	Classification of Project (Application, Product, Research, Review)	Mapping with stated POs and PSOs	
						PO	PSO
1	Shahid Afridi S Hashim Aslam M	Design and Fabrication of multi-rotor drones for fertilizer spray	Mr. S.Karthik	Design & Manufacturing	Product	PO: 1,2, 3,4,5,6, 7,8,9,1 0,11, 12	PSO: 1,2
2	Sugan kumar.S Mohammad Reyad S	Experimental study on solid state friction-stir welding of aluminium–magnesium alloys	Mr.S.Maheswaran	Manufacturing	Research	PO: 1,2, 3,4,5,6, 7,8,9,1 0,11, 12	PSO: 1,2
3	Dhanasekaran G Nelson Ramkumar B	Assessment of the Tribological Properties of AMC for Piston Rings in IC Engine	Dr.B.Gobalakrishnan	Manufacturing	Research	PO: 1,2, 3,4,5,6, 7,8,9,1 0,11, 12	PSO: 1,2
4	Venukanth.S Parthasarathi N	Design & Fabrication of Injection Molding Machine for Small Scale Applications	Mr. M. Anthony Kingston	Design & Manufacturing	Product	PO: 1,2, 3,4,5,6, 7,8,9,1 0,11,12	PSO: 1,2
5	Vaishali R Navaneetha Kishnan R	Design and Analysis of Uni- Directional Laminated composite plate from domestic wastes	Mr. P. Dineshkumar	Design & Manufacturing	Research	PO: 1,2, 3,4,5,6, 7,8,9,1 0,11, 12	PSO: 1,2

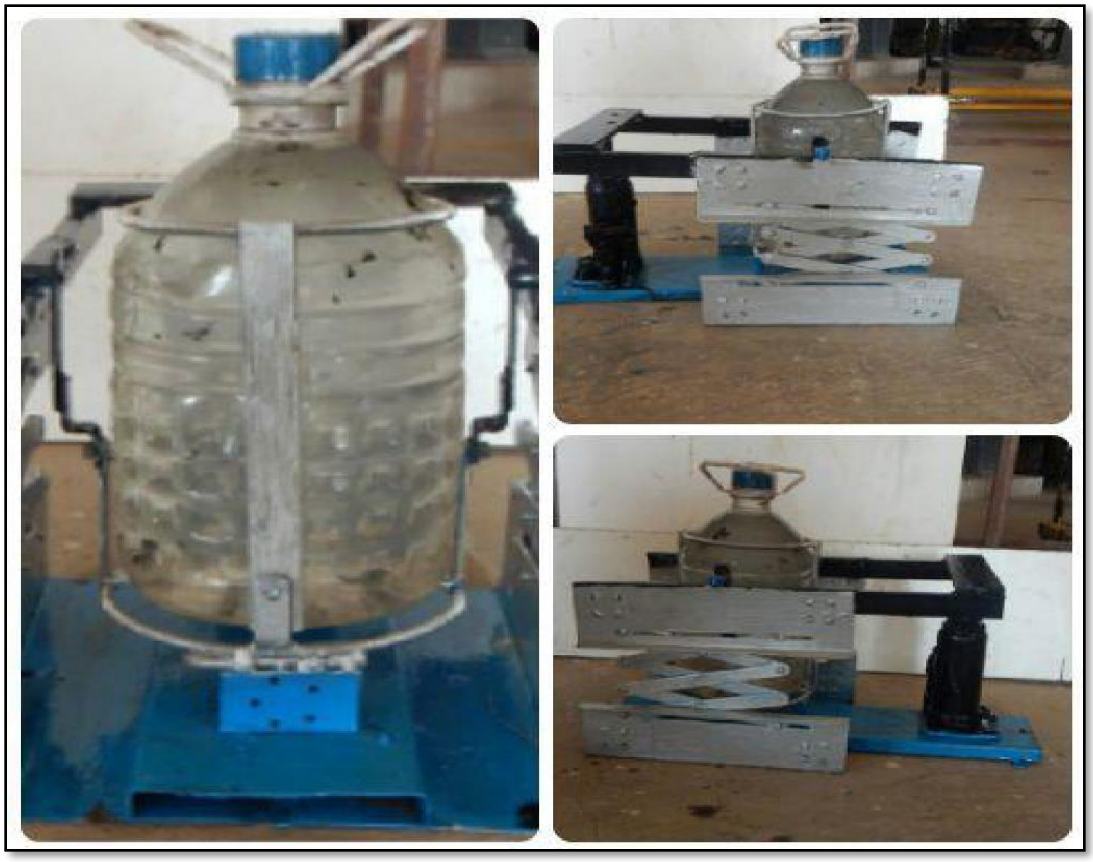
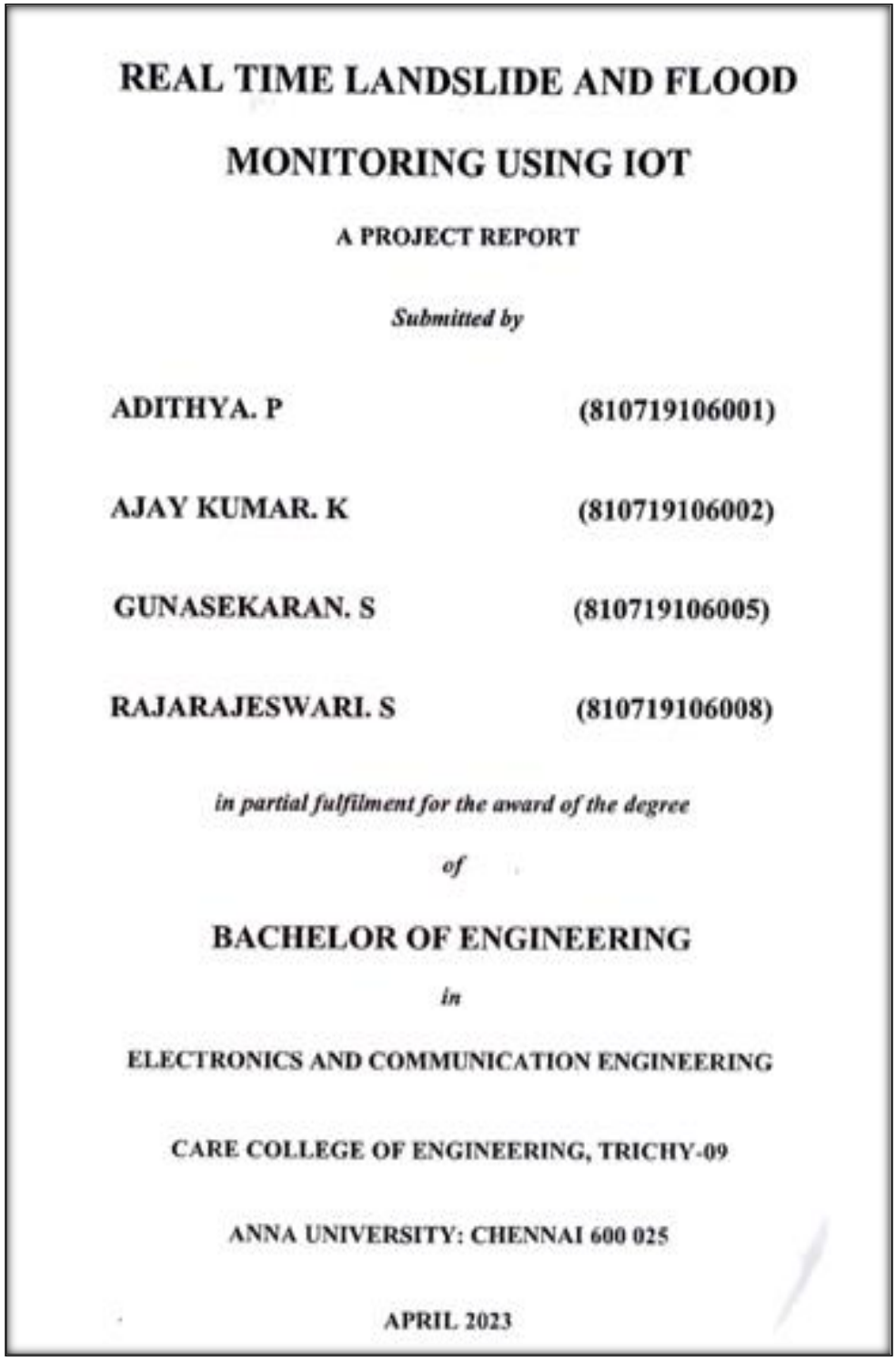


Fig.33 Sample Project Images

SAMPLE REPORT



REAL TIME LANDSLIDE AND FLOOD MONITORING USING IOT

A PROJECT REPORT

Submitted by

ADITHYA. P (810719106001)

AJAY KUMAR. K (810719106002)

GUNASEKARAN. S (810719106005)

RAJARAJESWARI. S (810719106008)

in partial fulfilment for the award of the degree

of

BACHELOR OF ENGINEERING

in

ELECTRONICS AND COMMUNICATION ENGINEERING

CARE COLLEGE OF ENGINEERING, TRICHY-09

ANNA UNIVERSITY: CHENNAI 600 025

APRIL 2023

Fig. 34a- Sample Project Report

ANNA UNIVERSITY: CHENNAI 600 025

BONAFIDE CERTIFICATE

Certified that this project report **"REAL TIME LANDSLIDE AND FLOOD MONITORING USING IOT"** is the bonafide work of **RAJARAJESWARI. S (810719106008), AJAY KUMAR. K (810717106002), GUNASEKARAN. S (810719106005), ADITHYA. P (810719106001),** who carried out the project work under my supervision.

Shiva Shankaring 12/5/23

SIGNATURE	**SIGNATURE**
Dr.J.JEYARANI., M.E.,Ph.D.,	**Ms. M.SHIVA SHANKARI M.E., (Ph.D)**
Professor,	Assistant Professor,
HEAD OF THE DEPARTMENT	SUPERVISOR
Department of ECE,	Department of ECE,
CARE College of Engineering,	CARE College of Engineering,
27, Thayanur,	27, Thayanur,
Tiruchirappalli - 620009	Tiruchirappalli - 620009

Submitted for the ANNA UNIVERSITY project viva-voce held on 17-05-2023

at CARE COLLEGE OF ENGINEERING, Trichy-620009.

Shiva Shankaring 17/5/23
INTERNAL EXAMINER

17/05/2023
EXTERNAL EXAMINER

ABSTRACT

In this project a landslide monitoring system was built to detect the movement and humidity of the soil that generally causes landslides. The soil movement sensors utilize a sliding potentiometer that converts distances into stresses and humidity sensors. Data from sensors processed using a 10-bit Analog to Digital Converter (ADC) on the ESP32 microcontroller. The value of soil movement and humidity then sent digitally via serial USB communication protocol. Through the website's user interface, graphic data displaying the soil moisture and humidity are displayed. These data can be downloaded as excel files. The results obtained through the simulation that the system is able to measure the movement of soil, soil moisture, and provide early warning through buzzer and notification.

DESIGN AND IMPLEMENTATION OF A USER - FRIENDLY SMART MIRROR FOR ENHANCED HOME AUTOMATION AND INFORMATION DISPLAY USING IOT

A PROJECT REPORT

Submitted by

CITYBABU.M	**(810719106003)**
DHINAKARAN.S	**(810719106004)**
NISHANTH.K	**(810719106006)**
VIJEI.R	**(810719106009)**

in partial fulfilment for the award of the degree

of

BACHELOR OF ENGINEERING

in

ELECTRONICS AND COMMUNICATION ENGINEERING

CARE COLLEGE OF ENGINEERING, TRICHY-09

ANNA UNIVERSITY: CHENNAI 600 025

APRIL 2023

ANNA UNIVERSITY: CHENNAI 600 025

Fig .34b- Sample Project Report

ANNA UNIVERSITY: CHENNAI 600 025

BONAFIDE CERTIFICATE

Certified that this project report **"DESIGN AND IMPLEMENTATION OF A USER-FRIENDLY SMART MIRROR FOR ENHANCED HOME AUTOMATION AND INFORMATION DISPLAY USING IOT"** is the bonafide work of **CITYBABU.M (810719107003), DHINAKARAN.S (810719106004), NISHANTH.K (810719106006), VIJEI.R (810719106009),** who carried out the project work under my supervision.

J Jeyani 16/5/23

SIGNATURE

Dr. J.JEYARANI., M.E.,Ph.D.,

Professor,

HEAD OF THE DEPARTMENT

Department of ECE,

CARE College of Engineering,

27, Thayanur,

Tiruchirappalli - 620009

16/5/23

SIGNATURE

Mr. Sriram Sundar S, M.E., (Ph.D),

Assistant Professor I,

SUPERVISOR

Department of ECE,

CARE College of Engineering,

27, Thayanur,

Tiruchirappalli - 620009

Submitted for the ANNA UNIVERSITY project viva-voce held on 17-05-2023 at CARE COLLEGE OF ENGINEERING, Trichy-620009.

Shiva Shankaring 17/5/23

INTERNAL EXAMINER

17/05/2023

EXTERNAL EXAMINER

ABSTRACT

This project presents the design and development of a user-friendly smart mirror for home automation, leveraging the Internet of Things (IoT). Smart mirrors offer a convenient and efficient way to access information, control smart home devices, and enhance the overall aesthetics and functionality of a living space. The smart mirror incorporates various features such as displaying the date, time, current temperature, weather details, and emails. Additionally, it can receive and display online news, making it a comprehensive source of information while users engage in their grooming routine. The proposed system enables the construction of similar mirrors capable of integrating news updates onto the mirror screen, along with real-time room temperature display. By offering a futuristic and modern lifestyle, the smart mirror extends its functionality to include control over home appliances. The implementation utilizes a Raspberry Pi 3 (B model) board, featuring a display, IoT based circuitry, temperature sensor, heartbeat sensor, and ultrasonic sensor. Through the Raspberry Pi's integration with an IoT circuit equipped with a Wi-Fi module, the mirror achieves internet connectivity, facilitating remote control of home appliances.

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DEPARTMENT OF CSE

PROJECT DETAIL (2022 – 2023)

PROJECT DETAILS	
TOTAL NO OF PROJECTS	7
TOTAL NO OF STUDENTS INVOLVED	23
NO OF BEST PROJECTS SELECTED	2
BEST PROJECT DETAILS	
PROJECT1	
PROJECT NAME	SIGN LANGUAGE RECOGNITION WITH DEEP LEARNING TECHNIQUES
PROJECT2	
PROJECT NAME	FARMER ASSISTANCE SYSTEM ML BASED

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STUDENT'S PROJECT LIST (2022-2023)

S. No	Student Name	Project Title	Guide Name
1	Gopinath G Madhan Prasath R Ram Chandhar S A Shreehar K E	Sign Language Recognition with Deep Learning Techniques	Mr. M. Mohamed Nizarudeen
2	Madhu Preetha B	Authendication and Authorization for Employees's Machine	Mrs. R. Sasikala
3	Aakash N Keerthana D M Vijayashree V Vindhiya M	Classification-based Digital storefront Data Aggregation and Analysis System with Scrapy and Deep Recurrent Neural Network	Mr. K. Mahadevan
4	Adhithya A Ayyapan D Syed Jaffer Sadiq	Malware detection and classification using machine learning	Mrs. R. Ranitha
5	Nithya Sri R Steffy Rosey J A Swetha V	Farmer Assistance System ML Based	Mrs.V.Gomathi
6	Arthy N Ayeesha Begum S Chelci Jisha Nandhini S	Automatic Video Surveillance System	Mrs. P. Uma Maheswari
7	Aravind R Balamurugan S Nithinkarthick R Sanjai P	Intrusion Detection using Machine Learning and Deep Learning Classifiers	Ms. M. Lakshana

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BEST PROJECT DETAILS

SIGN LANGUAGE RECOGNITION

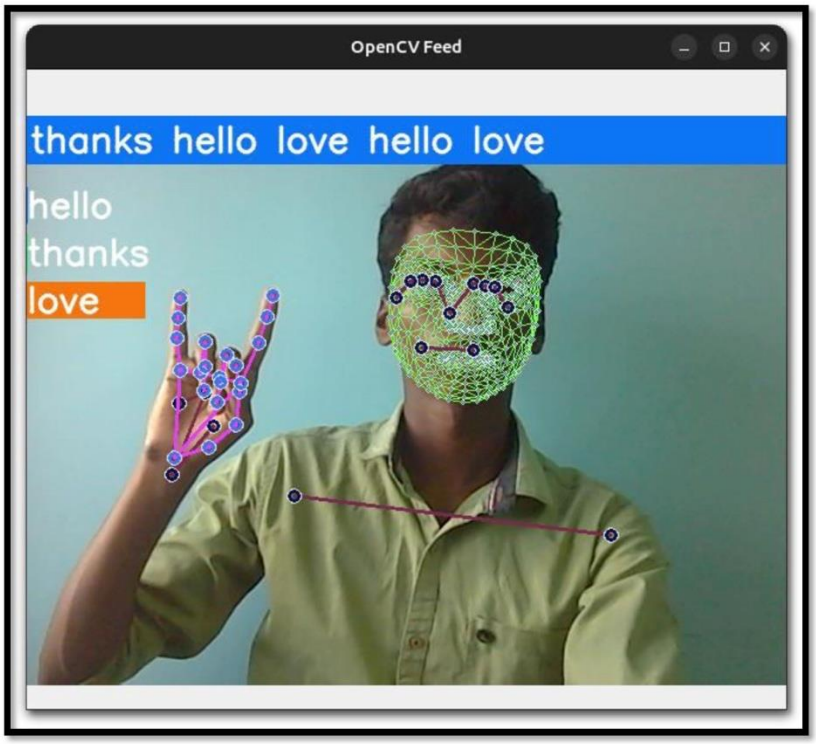
TEAM MEMBERS

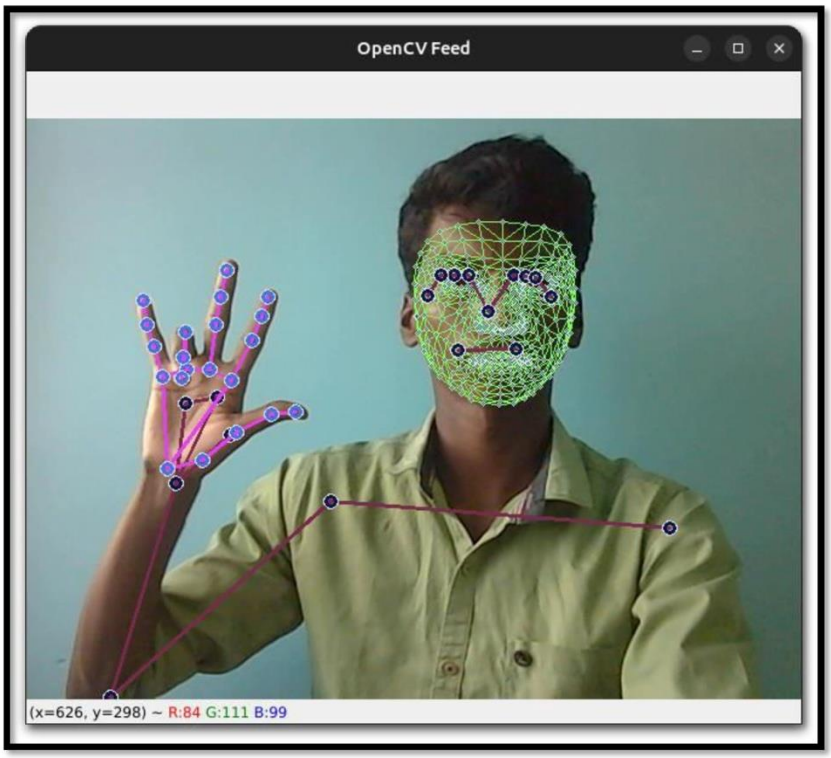
1) K.E. SHREEHAR
2) G. GOPINTAH
3) S. MADHANPRASATH

PROJECT ABSTRACT

This project proposes a video-conferencing application that integrates Indian Sign Language recognition using MediaPipe, WebRTC, and LSTM. The proposed system is aimed at facilitating communication for hearing-impaired individuals who use Indian Sign Language as their primary mode of communication. The system recognizes and translates sign language gestures in real time, enabling seamless communication between hearing-impaired individuals and non-sign language users. The system's implementation involves using MediaPipe's pose estimation model to capture hand gestures, converting the captured data into a sequence of feature vectors, which are then input into an LSTM-based neural network for classification. The WebRTC technology is used for real-time video and audio communication between the two individuals.

SCREENSHOTS OF THE WORKING MODEL




OpenCV Feed
(x=626, y=298) ~ R:84 G:111 B:99

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FARMING ASSISTANCE SYSTEM

TEAM MEMBERS

1) R. NITHYA SRI
2) J. A. STEFFY ROSSY
3) V. SWETHA

PROJECT ABSTRACT

Agriculture industry is the main source of the world's food supply. It occupies a significant position in the Indian economy and stands for the backbone of India. Farmers today are facing the problem of low awareness about government schemes, and fertilizers, and don't have access to information about soil properties, seeds, recently used tools, fertilizers, etc. To meet all the requirements of farmers, this system will go through the implementation of various improved ML algorithms and deliver an Assistant system that helps the farmer to connect and enlarge the cultivation with enhanced accuracy. This system uses XGBoost Machine Learning Algorithm for crop recommendation and Fertilizer recommendation, and Resnet algorithm for plant disease classification. It also incorporates other features like crop rotation, weather prediction and Localization for assisting farmers.

SCREENSHOTS OF THE WORKING MODEL

HomePage:

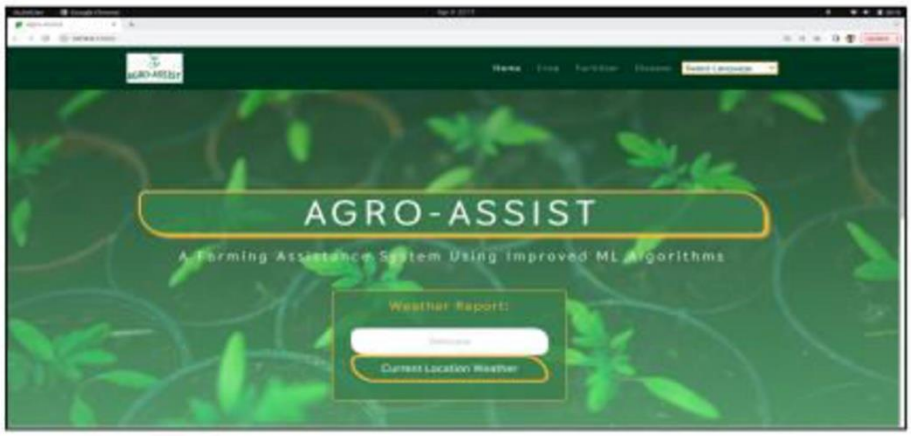
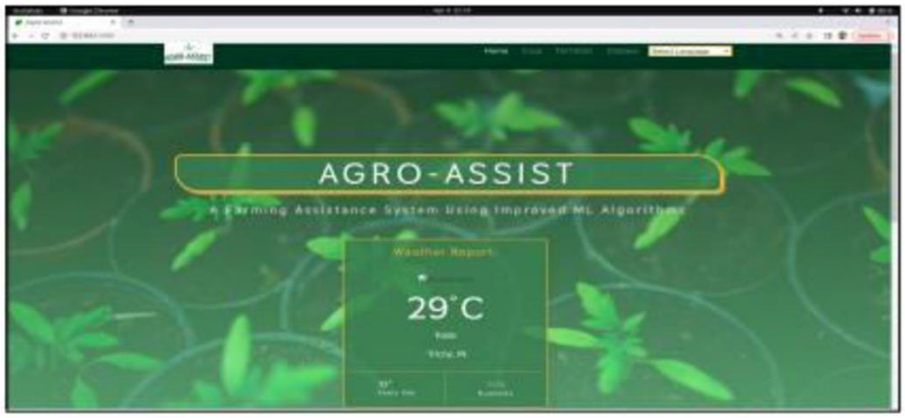


Fig B.1 Home Page

HomePage with Weather Forecast(Trichy):



Crop Recommendation Page:

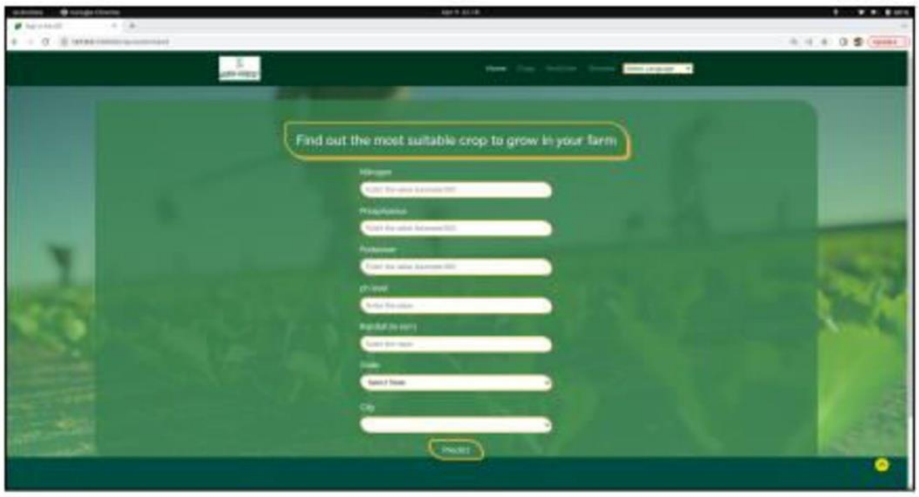


Fig B.3 Crop Recommendation Page

Crop Recommendation Output: