



SRI BHARATHI

ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)
Kaikkurichi, Pudukkottai -622 303

www.sbec.edu.in

NAAC DOCUMENTS



Quality Indicator Frame Work

Criterion – 2

Teaching-Learning and Evaluation

Submitted by

IQAC

Internal Quality Assurance Cell

Sri Bharathi Engineering College for Women



Criteria 2

Teaching-Learning and Evaluation

350

Key Indicator- 2.3. Teaching- Learning Process (40)

2021-2022

**COMPUTER SCIENCE AND
ENGINEERING**

PARTICIPATIVE LEARNING

Activity	Number of Students attended	Page No.
Value Added Course (VAC)	140	3
Symposium and Conference	25	60
TOTAL STUDENTS ATTENDED	165	-



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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Criteria 2

Teaching-Learning and Evaluation

350

Key Indicator- 2.3. Teaching- Learning Process (40)

2021-2022

**COMPUTER SCIENCE AND
ENGINEERING**

PARTICIPATIVE LEARNING

VALUE ADDED COURSE



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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2021-2022 / ODD SEMESTER

Date: 03 / 08 /2021

DEPARTMENT CIRCULAR

A Value added course on “Machine Learning with Python ” will be conducted by Rooboo Tech Software Development and Training Institute, Chennai in the college campus for all Second year, Third year and Final Year CSE students from 09/08/2021 to 13/08/2021. Certificates will be issued to eligible participants at the end of the course..

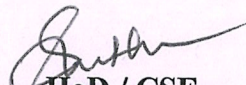
S.No.	Name of the Course	Resource Person
1.	Machine Learning with Python	Resource Person 1 : Mr. K.Marimuthu Master Trainer Rooboo Tech Resource Person 2 : Ms.D.Janani Master Trainer Rooboo Tech

CC:

- Principal's office
- IQAC Coordinator
- Class In charges –II,III,IV year
- CSE Students–II,III,IV year
- Notice Board


Dr. S.THILAGAVATHI M.E., Ph.D.,
PRINCIPAL

**SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.**


**HoD / CSE
HOD / CSE
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KAIKKURICHI,
PUDUKKOTTAI - 622 303**



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2021-2022 / ODD SEMESTER


Value Added Course on “Machine Learning with Python”

SYLLABUS

S.NO	TOPIC COVERED	DURATION (in hours)	DATE FN/AN
1	Introduction to Machine learning – Python for Machine Learning – Supervised Vs Unsupervised	3	09.08.2021
2	Introduction to Regression – Simple Linear Regression – Model Evaluation in Regression Models – Evaluation Metrics in Regression Models – Multiple Linear Regression	3	09.08.2021
3	Introduction to Classification – K-Nearest Neighbours – Evaluation Metrics in Classification – Introduction to Decision Trees- Building Decision Trees	3	10.08.2021
4	Introduction to Logistic Regression – Logistic Regression Vs Linear Regression – Logistic Regression Training	3	10.08.2021
5	Support Vector Machine - Kernel SVM - Classification Models Performance	3	11.08.2021
6	Simple Linear Regression - Multiple Linear Regression - Polynomial Regression - Support Vector Regression -	3	11.08.2021
7	Decision Tree Regression - Random Forest Regression - Regression Models Performance	3	12.08.2021
8	Introduction to clustering – Introduction to K- Means Algorithm - Hierarchical Clustering	3	12.08.2021
9	Natural Language Processing - Dimensionality Reduction - Principal Component Analysis -	3	13.08.2021
10	Linear Discriminate Analysis - Kernel PCA	3	13.08.2021
Total Hours :		30	


VAC Coordinator


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ACADEMIC YEAR 2021-2022 / ODD SEMESTER

Value Added Course on “Machine Learning with Python”

STUDENTS PARTICIPATION LIST-VAC PROGRAM

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/BRANCH
1	912618104001	ABIRAMI S	IV / CSE
2	912618104002	AKILA P	IV / CSE
3	912618104003	BUVANESHWARI S	IV / CSE
4	912618104004	EVANJELIN S	IV / CSE
5	912618104005	FEFINA I	IV / CSE
6	912618104007	GOWSALYA A	IV / CSE
7	912618104011	JAYANTHINI T	IV / CSE
8	912618104012	KAVIYASELVI K	IV / CSE
9	912618104013	KOWSALYA S	IV / CSE
10	912618104014	LAKSHMI N	IV / CSE
11	912618104015	LAKSHMI PRABHA M	IV / CSE
12	912618104017	MALA S	IV / CSE
13	912618104018	MAMTHA G	IV / CSE
14	912618104019	NIRANJANADEVIC	IV / CSE
15	912618104020	NIVEDHA M	IV / CSE
16	912618104021	NIVETHA G	IV / CSE
17	912618104022	PRIYADHARSHINI R	IV / CSE
18	912618104023	PRIYAVATHANI A	IV / CSE
19	912618104024	PUVIYARASI S	IV / CSE

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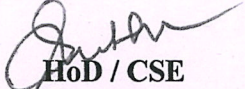
20	912618104025	RASMI J	IV / CSE
21	912618104026	ROSLINA BEGUM R	IV / CSE
22	912618104027	SINDHU V	IV / CSE
23	912618104028	SIVASANGAVI A	IV / CSE
24	912618104029	SURUTHIKA S	IV / CSE
25	912618104031	SUSHMEENA K	IV / CSE
26	912619104001	ANNAPOORANI M	III / CSE
27	912619104003	ARUNNAVAMEENA A	III / CSE
28	912619104004	DAYANA P	III / CSE
29	912619104005	DHARSHINI D	III / CSE
30	912619104007	FAHMIDHA B	III / CSE
31	912619104009	GULNAS FATHIMA S	III / CSE
32	912619104010	HELAN J	III / CSE
33	912619104011	KEERTHANA R	III / CSE
34	912619104012	MUTHULAKSHMI G	III / CSE
35	912619104013	MUTHU MEENAKSHI M	III / CSE
36	912619104014	NIROSHIKA R	III / CSE
37	912619104017	PARAMESHWARI S	III / CSE
38	912619104019	RANJANI K	III / CSE
39	912619104020	RILWANA PARVEEN J	III / CSE
40	912619104021	ROOPINA R	III / CSE
41	912619104022	SANDHIYA B	III / CSE
42	912619104023	SANTHI D	III / CSE
43	912619104024	SARANYA C	III / CSE
44	912619104027	SNEHA R	III / CSE
45	912619104029	SURIYA JOTHI S	III / CSE
46	912619104301	ABINAYA S	III / CSE


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47	912619104501	ISWARYA C	III / CSE
48	912620104001	AKALYA S	II / CSE
49	912620104002	HEMA V	II / CSE
50	912620104003	ISWARYA R	II / CSE
51	912620104004	KALAIVANI S	II / CSE
52	912620104005	KALPANA K	II / CSE
53	912620104006	MAHALAKSHMI P	II / CSE
54	912620104007	MEIYYAMMAL M	II / CSE
55	912620104008	NANDHINI P	II / CSE
56	912620104009	PRASANNA DEVI P	II / CSE
57	912620104010	PRISHIYA E	II / CSE
58	912620104012	ROSAMMAL M	II / CSE
59	912620104013	ROSHIKA K	II / CSE
60	912620104014	SABHA AYSHA S	II / CSE
61	912620104015	SATHIYASRI P	II / CSE
62	912620104016	SIVAGAMI D	II / CSE
63	912620104017	SIVAHARINI S	II / CSE
64	912620104018	SUBASHINI C	II / CSE
65	912620104019	SUBASHINI M	II / CSE
66	912620104020	SWETHA D	II / CSE
67	912620104021	VANATHI T	II / CSE
68	912620104022	VINCIYA MARY S	II / CSE
69	912620104301	AARTHI P	II / CSE
70	912620104303	JANANI B	II / CSE
71	912620104304	VAISHNAVI R	II / CSE

VAC Coordinator


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2021-2022 / ODD SEMESTER

Value Added Course on “Machine Learning with Python”

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/ BRANCH	DATE		DATE		DATE		DATE		DATE		NO OF SESSIONS ATTENDED	SIGNATURE OF THE STUDENT
				09.08.21		10.08.21		11.08.21		12.08.21		13.08.21			
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
1	912618104001	ABIRAMI S	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	<i>Abirami</i>
2	912618104002	AKILA P	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	<i>Akila</i>
3	912618104003	BUVANESHWARI S	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	<i>Buvaneshwari</i>
4	912618104004	EVANJELIN S	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	<i>Evangelin</i>
5	912618104005	FEFINA I	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	<i>Fefina</i>
6	912618104007	GOWSALYA A	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	<i>Gowshalya</i>
7	912618104011	JAYANTHINI T	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	<i>T. Jayanthini</i>
8	912618104012	KAVIYASELVI K	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	<i>Kaviyaseelvi</i>
9	912618104013	KOWSALYA S	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	<i>Kowsalya</i>
10	912618104014	LAKSHMI N	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	<i>Lakshmi</i>

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21-22/odd.

11	912618104015	LAKSHMI PRABHA M	IV / CSE	/	/	aa	/	/	/	/	/	/	08	Lakshmi
12	912618104017	MALA S	IV / CSE	/	/	/	/	/	/	/	/	/	10	S.Mala
13	912618104018	MAMTHA G	IV / CSE	/	/	/	/	/	/	/	/	/	10	Gr. Mamtha
14	912618104019	NIRANJANADEVIC	IV / CSE	/	/	/	/	/	/	/	/	/	10	Niranjanadevi
15	912618104020	NIVEDHA M	IV / CSE	/	/	/	/	/	/	/	/	/	10	Nivedha
16	912618104021	NIVETHA G	IV / CSE	/	/	/	/	/	/	/	/	/	10	Nivetha
17	912618104022	PRIYADHARSHINI R	IV / CSE	/	/	/	/	/	/	/	/	/	10	Priya
18	912618104023	PRIYAVATHANI A	IV / CSE	/	/	/	/	/	/	/	/	/	10	Priyavathani
19	912618104024	PUVIYARASI S	IV / CSE	aa	/	/	/	/	/	/	/	/	08	Puviyarasi
20	912618104025	RASMI J	IV / CSE	/	/	/	/	/	/	/	/	/	10	Rasmi
21	912618104026	ROSLINA BEGUM R	IV / CSE	/	/	/	/	/	/	/	/	/	10	Rosli
22	912618104027	SINDHU V	IV / CSE	/	/	/	/	/	/	/	/	/	10	Sindhu
23	912618104028	SIVASANGAVI A	IV / CSE	/	/	/	/	/	/	/	/	/	10	Sivasangavi
24	912618104029	SURUTHIKA S	IV / CSE	/	/	/	/	/	/	/	/	/	10	Suruthika
25	912618104031	SUSHMEENA K	IV / CSE	/	/	/	/	/	/	/	/	/	10	Sushmeena
26	912619104001	ANNAPOORANI M	III / CSE	/	/	/	/	/	/	/	/	/	10	M. Annapoorani
27	912619104003	ARUNNAVAMEENA A	III / CSE	/	/	/	/	/	/	/	/	/	10	Arunnavameena
28	912619104004	DAYANA P	III / CSE	/	/	/	/	/	/	/	/	/	10	Dayana

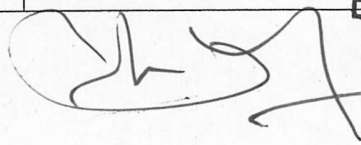
Dr. S. THILAGAVATHI M.E., Ph.D.,

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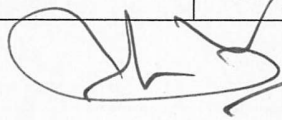
SRI BHARATHI ENGINEERING
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Kaikkurichi - 622 303, Pudukkottai Dt.

29	912619104005	DHARSHINI D	III / CSE	a	a	/	/	/	/	/	/	/	/	08	Dharshini
30	912619104007	FAHMIDHA B	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Fay
31	912619104009	GULNAS FATHIMA S	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Gulnas Fay
32	912619104010	HELAN J	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Helan
33	912619104011	KEERTHANA R	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Keerthana
34	912619104012	MUTHULAKSHMI G	III / CSE	/	/	a	a	/	/	/	/	/	/	08	Muthulakshmi
35	912619104013	MUTHU MEENAKSHI M	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Muthu
36	912619104014	NIROSHIKA R	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Niroshika
37	912619104017	PARAMESHWARI S	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Parameswari
38	912619104019	RANJANI K	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Ranjani
39	912619104020	RILWANA PARVEEN J	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Rilwana
40	912619104021	ROOPINA R	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Roopina
41	912619104022	SANDHIYA B	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Sandhya
42	912619104023	SANTHI D	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Santhi
43	912619104024	SARANYA C	III / CSE	a	a	/	/	/	/	/	/	/	/	08	Saranya
44	912619104027	SNEHA R	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Sneha
45	912619104029	SURIYA JOTHI S	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Suriya
46	912619104301	ABINAYA S	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Abinaya


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47	912619104501	ISWARYA C	III / CSE	/	/	/	/	/	/	/	/	/	/	/	10	Ishya
48	912620104001	AKALYA S	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	S. Akalya
49	912620104002	HEMA V	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	H.V.
50	912620104003	ISWARYA R	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	Ishya
51	912620104004	KALAIVANI S	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	K. Kalavani
52	912620104005	KALPANA K	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	K. Kalpana
53	912620104006	MAHALAKSHMI P	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	M. Mahalakshmi
54	912620104007	MEIYYAMMAL M	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	M. Meiyammal
55	912620104008	NANDHINI P	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	N. Nandhini
56	912620104009	PRASANNA DEVI P	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	P. Prasanna Devi
57	912620104010	PRISHIYA E	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	P. Prishya
58	912620104012	ROSAMMAL M	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	R. Rosammal
59	912620104013	ROSHIKA K	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	R. Roshika
60	912620104014	SABHA AYSHA S	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	S. Sabha Aysha
61	912620104015	SATHIYASRI P	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	P. Sathiyasri
62	912620104016	SIVAGAMI D	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	D. Sivagami
63	912620104017	SIVAHARINI S	II / CSE	/	/	/	/	aa	/	/	/	/	/	/	08	S. Sivaharini
64	912620104018	SUBASHINI C	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	C. Subashini


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65	912620104019	SUBASHINI M	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	<i>Sub.</i>
66	912620104020	SWETHA D	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	<i>Swetha</i>
67	912620104021	VANATHI T	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	<i>T. Vanathi</i>
68	912620104022	VINCIYA MARY S	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	<i>S. Vinciya Mary</i>
69	912620104301	AARTHI P	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	<i>Aarthi</i>
70	912620104303	JANANI B	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	<i>Janani</i>
71	912620104304	VAISHNAVI R	II / CSE	/	/	/	/	/	/	/	/	/	/	/	10	<i>Vaishnavi</i>

[Signature]
VAC Coordinator

[Signature]
Dr. S. [Name] Ph.D.,
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COLLEGE FOR WOMEN
Kalkkurchi - 622 303, Pudukkottai DL.

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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Report on Value Added Course

Title:	Machine Learning with Python				
Resource Person:	Resource Person 1 : Mr. K.Marimuthu Master Trainer Rooboo Tech		Resource Person 2 : Ms.D.Janani Master Trainer Rooboo Tech		
Date of conduct from :	09.08.2021	To:	13.08.2021	Duration:	30 Hours
Organized Department :	COMPUTER SCIENCE AND ENGINEERING				
Participant Year:	2,3,4(CSE)	Semester:	ODD	No. of Students Registered :	71
Venue:	Auditorium				

Outcome of Value Added Course (VAC)

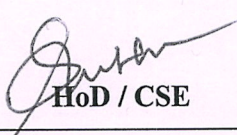
At the end of the VAC course the student can able to

- Describe the various types of Machine Learning algorithms and when to use them.
- Compare and contrast linear classification methods including multiclass prediction, support vector machines, and logistic regression.
- Write Python code that implements various classification techniques including K-Nearest neighbors (KNN), decision trees, and regression trees.
- Evaluate the results from simple linear, non-linear, and multiple regression on a data set using evaluation metric.

Assessment Process

- Students securing **more than 60% on total score** and secured more than 75% in attendance is eligible to receive the certificate for the VAC course conducted
- Total Score = $(0.5 * \text{Attendance in VAC out of 100 percentage} + 0.5 * \text{Test mark in VAC out of 100 marks})$


VAC Coordinator


HoD / CSE


Principal


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2021-2022 / ODD SEMESTER

Value Added Course on “Machine Learning with Python”

Name of the Student :

Year/Sem:

AU Register Number:

MCQ QUESTIONS (25X1 = 25 Marks)


- Type of matrix decomposition model is _____
 - predictive model
 - descriptive model
 - logical model
 - None
- PCA is _____
 - backward feature selection
 - forward feature selection
 - feature extraction
 - None of these
- Supervised learning and unsupervised clustering both require which is correct according to the statement.
 - input attribute
 - hidden attribute
 - output attribute
 - categorical attribute
- Following are the types of supervised learning _____
 - regression
 - classification
 - subgroup discovery
 - All of above
- A feature F1 can take certain value: A, B, C, D, E, & F and represents grade of students from a college. Here feature type is _____
 - ordinal
 - nominal
 - categorical
 - boolean
- Following is powerful distance metrics used by Geometric model _____
 - manhattan distance
 - euclidean distance
 - All of above
 - None of above


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7. The output of training process in machine learning is _____
- a) machine learning algorithm
 1. c) null
 2. b) machine learning model
 3. d) accuracy
8. Which of the following is a good test dataset characteristic?
- a) is representative of the dataset as a whole
 - c) All of above
 - b) large enough to yield meaningful results
 1. d) None of above
9. Which of the following techniques would perform better for reducing dimensions of a data set?
- a) removing columns which have high variance in data
 - c) removing columns with dissimilar data trends
 - b) removing columns which have too many missing value
 - d) None of the above
10. What characterize is hyperplane in geometrical model of machine learning?
1. a) a plane with 1 dimensional fewer than number of input attributes
 2. c) a plane with 2 dimensional more than number of input attributes
 - b) a plane with 1 dimensional more than number of input attributes
 1. d) a plane with 2 dimensional fewer than number of input attributes
11. You are given reviews of few Netflix series marked as positive, negative and neutral. Classifying reviews of a new netflix series is an example of _____
1. a) unsupervised learning
 1. c) supervised learning
 2. b) semi supervised learning
 3. d) reinforcement learning
12. Like the probabilistic view, the _____ view allows us to associate a probability of membership with each classification
- a) deductive
 - c) classical
 - b) exemplar
 - d) inductive
13. The problem of finding hidden structure in unlabeled data is called _____
1. a) unsupervised learning
 1. c) supervised learning
 2. b) reinforcement learning
 3. d) None
14. If machine learning model output involves target variable then that model is called as _____
1. a) predictive model
 1. c) reinforcement learning
 2. b) descriptive model
 3. d) All of above


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15. Database query is used to uncover this type of knowledge.

- | | |
|---------------|------------------------|
| 1. a) hidden | 1. c) deep |
| 2. b) shallow | 3. d) multidimensional |

16. Data used to build a data mining model.

- | | |
|---------------------|-----------------------|
| 1. a) training data | 1. c) test data |
| 2. b) hidden data | 3. d) validation data |

17. Application of machine learning methods to large databases is called _____

- | | |
|-------------------------------|--------------------------|
| 1. a) big data computing | 1. c) data mining |
| 2. b) artificial intelligence | 3. d) internet of things |

18. Which learning Requires Self Assessment to identify patterns within data?

- | | |
|--------------------------------|-----------------------------|
| 1. a) supervised learning | 2. c) unsupervised learning |
| 3. b) semi supervised learning | 4. d) reinforced learning |

19. In simple term, machine learning is _____

- | | |
|---|---------------------|
| 1. a) prediction to answer a query | 1. c) All of above |
| 2. b) training based on historical data | 3. d) None of above |

20. Of the Following Examples, Which would you address using an supervised learning Algorithm?

- | | |
|---|--|
| 1. a) given a set of news articles found on the web, group them into set of articles about the same story | 2. c) given a database of customer data, automatically discover market segments and group customers into different market segments |
| b) given email labeled as spam or not spam, learn a spam filter | 1. d) find the patterns in market basket analysis |

21. If machine learning model output doesn't involves target variable then that model is called as _____

- | | |
|-------------------------|------------------------------|
| 1. a) predictive model | 1. c) reinforcement learning |
| 2. b) descriptive model | 3. d) all of the above |

22. In what type of learning labelled training data is used _____

- | | |
|-----------------------------|------------------------------|
| 1. a) supervised learning | 3. c) reinforcement learning |
| 2. b) unsupervised learning | 1. d) active learning |


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23. In the example of predicting number of babies based on stork's population ,Number of babies is _____

1. a) feature

1. c) outcome

2. b) observation

3. d) attribute

24. Following are the descriptive models _____

a)

c)

b)

d)

1. classification

2. clustering

3. association rule

4. Both 1 and 2

25. In following type of feature selection method we start with empty feature set _____

1. a) backward feature selection

1. c) All of above

2. b) forward feature selection

3. d) None of above

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2021-2022 / ODD SEMESTER

Value Added Course on “Machine Learning with Python”

ANSWER KEY

1	b	6	c	11	c	16	a	21	b
2	c	7	b	12	d	17	c	22	a
3	a	8	c	13	a	18	c	23	c
4	d	9	b	14	a	19	c	24	d
5	a	10	d	15	d	20	a	25	b

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2021-2022 / ODD SEMESTER

Valu Value Added Course on "Machine Learning with Python"

Name of the Student : S. Siva harini Year/Sem: II / 03

AU Register Number: 91262010417

MCQ QUESTIONS (25X1 = 25 Marks)

1. Type of matrix decomposition model is _____
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c) logical model
d) None
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9. Which of the following techniques would perform better for reducing dimensions of a data set?

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- c) classical
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- c) supervised learning
- d) None

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 c) outcome
 d) attribute
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 b) association rule
 c) clustering
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 c) All of above
 d) None of above


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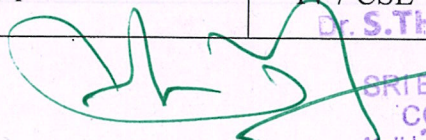
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ACADEMIC YEAR 2021-2022 / ODD SEMESTER

Value Added Course on “Machine Learning with Python”

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/ BRANCH	ATTENDANCE DETAILS		VAC-MCQ TEST		OVERALL MARK(100) (50% of A + 50% of B)
				No of Sessions Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
1	912618104001	ABIRAMI S	IV / CSE	10	100	22	88	94
2	912618104002	AKILA P	IV / CSE	10	100	23	92	96
3	912618104003	BUVANESHWARI S	IV / CSE	10	100	22	88	94
4	912618104004	EVANJELIN S	IV / CSE	10	100	20	80	90
5	912618104005	FEFINA I	IV / CSE	10	100	19	76	88
6	912618104007	GOWSALYA A	IV / CSE	10	100	17	68	84
7	912618104011	JAYANTHINI T	IV / CSE	10	100	19	76	88


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8	912618104012	KAVIYASELVI K	IV / CSE	10	100	21	84	92
9	912618104013	KOWSALYA S	IV / CSE	10	100	22	88	94
10	912618104014	LAKSHMI N	IV / CSE	10	100	24	96	98
11	912618104015	LAKSHMI PRABHA M	IV / CSE	8	80	22	88	84
12	912618104017	MALA S	IV / CSE	10	100	22	88	94
13	912618104018	MAMTHA G	IV / CSE	10	100	23	92	96
14	912618104019	NIRANJANADEVIC	IV / CSE	10	100	21	84	92
15	912618104020	NIVEDHA M	IV / CSE	10	100	24	96	98
16	912618104021	NIVETHA G	IV / CSE	10	100	22	88	94
17	912618104022	PRIYADHARSHINI R	IV / CSE	10	100	17	68	84
18	912618104023	PRIYAVATHANI A	IV / CSE	10	100	19	76	88
19	912618104024	PUVIYARASI S	IV / CSE	8	80	22	88	84
20	912618104025	RASMI J	IV / CSE	10	100	19	76	88
21	912618104026	ROSLINA BEGUM R	IV / CSE	10	100	24	96	98

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22	912618104027	SINDHU V	IV / CSE	10	100	24	96	98
23	912618104028	SIVASANGAVI A	IV / CSE	10	100	20	80	90
24	912618104029	SURUTHIKA S	IV / CSE	10	100	23	92	96
25	912618104031	SUSHMEENA K	IV / CSE	10	100	23	92	96
26	912619104001	ANNAPOORANI M	III / CSE	10	100	23	92	96
27	912619104003	ARUNNAVAMEENA A	III / CSE	10	100	21	84	92
28	912619104004	DAYANA P	III / CSE	10	100	21	84	92
29	912619104005	DHARSHINI D	III / CSE	8	80	20	80	80
30	912619104007	FAHMIDHA B	III / CSE	10	100	24	96	98
31	912619104009	GULNAS FATHIMA S	III / CSE	10	100	22	88	94
32	912619104010	HELAN J	III / CSE	10	100	23	92	96
33	912619104011	KEERTHANA R	III / CSE	10	100	22	88	94
34	912619104012	MUTHULAKSHMI G	III / CSE	8	80	21	84	82
35	912619104013	MUTHU MEENAKSHI M	III / CSE	10	100	22	88	94

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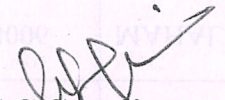
36	912619104014	NIROSHIKA R	III / CSE	10	100	23	92	96
37	912619104017	PARAMESHWARI S	III / CSE	10	100	24	96	98
38	912619104019	RANJANI K	III / CSE	10	100	22	88	94
39	912619104020	RILWANA PARVEEN J	III / CSE	10	100	21	84	92
40	912619104021	ROOPINA R	III / CSE	10	100	23	92	96
41	912619104022	SANDHIYA B	III / CSE	10	100	24	96	98
42	912619104023	SANTHI D	III / CSE	10	100	21	84	92
43	912619104024	SARANYA C	III / CSE	8	80	19	76	88
44	912619104027	SNEHA R	III / CSE	10	100	23	92	96
45	912619104029	SURIYA JOTHI S	III / CSE	10	100	20	80	90
46	912619104301	ABINAYA S	III / CSE	10	100	21	84	80
47	912619104501	ISWARYA C	III / CSE	10	100	24	96	98
48	912620104001	AKALYA S	II / CSE	10	100	24	96	98
49	912620104002	HEMA V	II / CSE	10	100	22	88	94

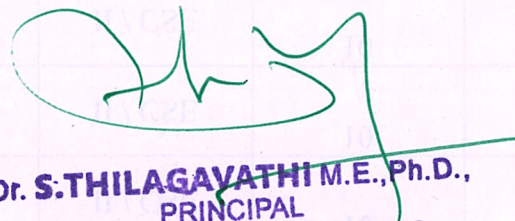
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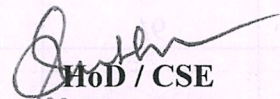
50	912620104003	ISWARYA R	II / CSE	10	100	21	84	92
51	912620104004	KALAIVANI S	II / CSE	10	100	20	80	90
52	912620104005	KALPANA K	II / CSE	10	100	18	72	86
53	912620104006	MAHALAKSHMI P	II / CSE	10	100	19	76	88
54	912620104007	MEIYYAMMAL M	II / CSE	10	100	17	68	84
55	912620104008	NANDHINI P	II / CSE	10	100	23	92	96
56	912620104009	PRASANNA DEVI P	II / CSE	10	100	21	84	92
57	912620104010	PRISHIYA E	II / CSE	10	100	23	92	96
58	912620104012	ROSAMMAL M	II / CSE	10	100	20	80	90
59	912620104013	ROSHIKA K	II / CSE	10	100	21	84	92
60	912620104014	SABHA AYSHA S	II / CSE	10	100	21	84	92
61	912620104015	SATHIYASRI P	II / CSE	10	100	24	96	98
62	912620104016	SIVAGAMI D	II / CSE	10	100	22	88	94
63	912620104017	SIVAHARINI S	II / CSE	8	80	20	80	80


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64	912620104018	SUBASHINI C	II / CSE	10	100	21	84	92
65	912620104019	SUBASHINI M	II / CSE	10	100	21	84	92
66	912620104020	SWETHA D	II / CSE	10	100	22	88	94
67	912620104021	VANATHI T	II / CSE	10	100	23	92	96
68	912620104022	VINCIYA MARY S	II / CSE	10	100	23	92	96
69	912620104301	AARTHI P	II / CSE	10	100	24	96	98
70	912620104303	JANANI B	II / CSE	10	100	22	88	94
71	912620104304	VAISHNAVI R	II / CSE	10	100	22	88	94


VAG Coordinator


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2021-2022 / EVEN SEMESTER

Date: 01 / 03 /2022

DEPARTMENT CIRCULAR

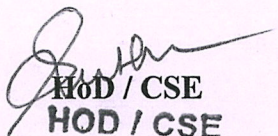
Certificate Course offered by the Department of CSE will be conducted for all Second year, Third year and Final year CSE students on “R LANGUAGE BASICS” from 07.03.2022 to 11.03.2022. Certificates will be issued to all the participants at the end of the Course.

S.No.	Name of the Course	Resource Person
1.	R LANGUAGE BASICS	Ms. S.Jayapratha AP / CSE

Cc:

- Principal's office
- IQAC Coordinator
- Class In charges – II, III, IV Year
- CSE Students - II, III, IV Year
- Notice Board


Dr. S. THILAGAVATHI M.E., Ph.D.,
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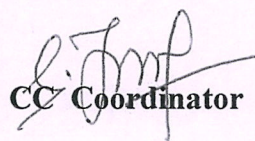
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2021-2022 / EVEN SEMESTER

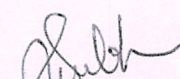
Certificate Course on “R Language Basics”

SYLLABUS

S.NO	TOPIC COVERED	DURATION (in hours)	DATE FN/AN
1	R interpreter, Introduction to major R data structures like vectors, matrices, arrays, list and data frames	3	07.03.2022
2	Flow control and loops, looping over list and array	3	07.03.2022
3	User-defined functions, Designing GUI	3	08.03.2022
4	Installing, loading different packages for file handling	3	08.03.2022
5	Reading and writing files of different formats using inbuilt packages	3	09.03.2022
6	Using inbuilt packages for data cleaning, Continuing with creating GUI for application, building package	3	09.03.2022
7	Transformation of data for statistical analysis	3	10.03.2022
8	Exploring and summarizing data using statistical methods: mean, median, mode, Using inbuilt packages for database connectivity	3	10.03.2022
9	Exploring and summarizing data using statistical methods: quantiles, Building contingency table, Using inbuilt packages for database connectivity	3	11.03.2022
10	Data visualization using Scatter Plot, line graph, histogram, bar chart, box plot, Building complete application with GUI and database connectivity	3	11.03.2022
Total Hours :		30	


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2021-2022 / EVEN SEMESTER

Certificate Course on “R Languages Basics”

STUDENTS PARTICIPATION LIST-CC PROGRAM

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/BRANCH
1	912618104001	ABIRAMI S	IV / CSE
2	912618104002	AKILA P	IV / CSE
3	912618104003	BUVANESHWARI S	IV / CSE
4	912618104004	EVANJELIN S	IV / CSE
5	912618104005	FEFINA I	IV / CSE
6	912618104007	GOWSALYA A	IV / CSE
7	912618104011	JAYANTHINI T	IV / CSE
8	912618104012	KAVIYASELVI K	IV / CSE
9	912618104013	KOWSALYA S	IV / CSE
10	912618104014	LAKSHMI N	IV / CSE
11	912618104015	LAKSHMI PRABHA M	IV / CSE
12	912618104017	MALA S	IV / CSE
13	912618104018	MAMTHA G	IV / CSE
14	912618104019	NIRANJANADEVIC	IV / CSE
15	912618104020	NIVEDHA M	IV / CSE
16	912618104021	NIVETHA G	IV / CSE
17	912618104022	PRIYADHARSHINI R	IV / CSE
18	912618104023	PRIYAVATHANI A	IV / CSE
19	912618104024	PUVIYARASI S	IV / CSE

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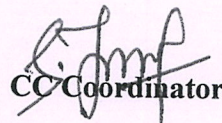
Kaikkurichi - 622 303, Pudukkottai Dt.

20	912618104025	RASMI J	IV / CSE
21	912618104026	ROSLINA BEGUM R	IV / CSE
22	912618104027	SINDHU V	IV / CSE
23	912618104028	SIVASANGAVI A	IV / CSE
24	912618104029	SURUTHIKA S	IV / CSE
25	912618104031	SUSHMEENA K	IV / CSE
26	912619104001	ANNAPOORANI M	III / CSE
27	912619104003	ARUNNAVAMEENA A	III / CSE
28	912619104004	DAYANA P	III / CSE
29	912619104005	DHARSHINI D	III / CSE
30	912619104007	FAHMIDHA B	III / CSE
31	912619104009	GULNAS FATHIMA S	III / CSE
32	912619104010	HELAN J	III / CSE
33	912619104011	KEERTHANA R	III / CSE
34	912619104012	MUTHULAKSHMI G	III / CSE
35	912619104013	MUTHU MEENAKSHI M	III / CSE
36	912619104014	NIROSHIKA R	III / CSE
37	912619104017	PARAMESHWARI S	III / CSE
38	912619104019	RANJANI K	III / CSE
39	912619104020	RILWANA PARVEEN J	III / CSE
40	912619104021	ROOPINA R	III / CSE
41	912619104022	SANDHIYA B	III / CSE
42	912619104023	SANTHI D	III / CSE
43	912619104024	SARANYA C	III / CSE
44	912619104027	SNEHA R	III / CSE
45	912619104029	SURIYA JOTHI S	III / CSE
46	912619104301	ABINAYA S	III / CSE

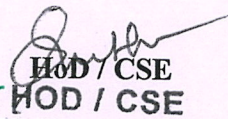

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47	912620104001	AKALYA S	II / CSE
48	912620104002	HEMA V	II / CSE
49	912620104003	ISWARYA R	II / CSE
50	912620104004	KALAIVANI S	II / CSE
51	912620104005	KALPANA K	II / CSE
52	912620104007	MEIYYAMMAL M	II / CSE
53	912620104008	NANDHINI P	II / CSE
54	912620104009	PRASANNA DEVI P	II / CSE
55	912620104010	PRISHIYA E	II / CSE
56	912620104012	ROSAMMAL M	II / CSE
57	912620104013	ROSHIKA K	II / CSE
58	912620104014	SABHA AYSHA S	II / CSE
59	912620104015	SATHIYASRI P	II / CSE
60	912620104016	SIVAGAMI D	II / CSE
61	912620104017	SIVAHARINI S	II / CSE
62	912620104018	SUBASHINI C	II / CSE
63	912620104019	SUBASHINI M	II / CSE
64	912620104020	SWETHA D	II / CSE
65	912620104021	VANATHI T	II / CSE
66	912620104022	VINCIYA MARY S	II / CSE
67	912620104301	AARTHI P	II / CSE
68	912620104303	JANANI B	II / CSE
69	912620104304	VAISHNAVI R	II / CSE


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2021-2022 / EVEN SEMESTER

Certificate Course on “R Language Basics”

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/ BRANCH	DATE		DATE		DATE		DATE		DATE		NO OF SESSIONS ATTENDED	SIGNATURE OF THE STUDENT
				07.03.22		08.03.22		09.03.22		10.03.22		11.03.22			
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
1	912618104001	ABIRAMI S	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	Abirami
2	912618104002	AKILA P	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	AKILA P
3	912618104003	BUVANESHWARI S	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	Buvaneshwari
4	912618104004	EVANJELIN S	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	Evanjelin
5	912618104005	FEFINA I	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	Fefina
6	912618104007	GOWSALYA A	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	Gowsalya
7	912618104011	JAYANTHINI T	IV / CSE	/	/	/	/	a	a	/	/	/	/	08	T. Jayanthini
8	912618104012	KAVIYASELVI K	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	Kavi
9	912618104013	KOWSALYA S	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	Kowsalya
10	912618104014	LAKSHMI N	IV / CSE	/	/	/	/	/	/	/	/	/	/	10	Lakshmi

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11	912618104015	LAKSHMI PRABHA M	IV / CSE	/	/	a	a	/	/	/	/	/	/	/	08	Lakshmi
12	912618104017	MALA S	IV / CSE	/	/	/	/	/	/	/	/	/	/	/	10	S.Mala.
13	912618104018	MAMTHA G	IV / CSE	/	/	/	/	/	/	/	/	/	/	/	10	Mamtha
14	912618104019	NIRANJANADEV I C	IV / CSE	/	/	/	/	/	/	/	/	/	/	/	10	Niranjana Devi
15	912618104020	NIVEDHA M	IV / CSE	/	/	/	/	/	/	/	/	/	/	/	10	Nivedha
16	912618104021	NIVETHA G	IV / CSE	/	/	/	/	/	/	/	/	/	/	/	10	Nivetha
17	912618104022	PRIYADHARSHINI R	IV / CSE	/	/	/	/	/	/	/	/	/	/	/	10	Priya
18	912618104023	PRIYAVATHANI A	IV / CSE	a	a	/	/	/	/	/	/	/	/	/	08	Priyavathani
19	912618104024	PUVIYARASI S	IV / CSE	/	/	/	/	/	/	/	/	/	/	/	10	Puviyarasi
20	912618104025	RASMI J	IV / CSE	/	/	/	/	/	/	/	/	/	/	/	10	Rasmi
21	912618104026	ROSLINA BEGUM R	IV / CSE	/	/	/	/	/	/	/	/	/	/	/	10	Roslin
22	912618104027	SINDHU V	IV / CSE	/	/	/	/	/	/	/	/	/	/	/	10	Sindhu
23	912618104028	SIVASANGAVI A	IV / CSE	/	/	/	/	/	/	/	/	/	/	/	10	Sivasangavi
24	912618104029	SURUTHIKA S	IV / CSE	/	/	/	/	/	/	/	/	/	/	/	10	Suruthika
25	912618104031	SUSHMEENA K	IV / CSE	/	/	/	/	a	a	/	/	/	/	/	08	Sushmeena
26	912619104001	ANNAPOORANI M	III / CSE	/	/	/	/	/	/	/	/	/	/	/	10	Anna poornani
27	912619104003	ARUNNAVAMEENA A	III / CSE	/	/	/	/	/	/	/	/	/	/	/	10	Arunnavameena
28	912619104004	DAYANA P	III / CSE	/	/	/	/	/	/	/	/	/	/	/	10	Dayana

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29	912619104005	DHARSHINI D	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Dharshini
30	912619104007	FAHMIDHA B	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Fahmidha
31	912619104009	GULNAS FATHIMA S	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Gulnas
32	912619104010	HELAN J	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Helan
33	912619104011	KEERTHANA R	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Keerthana
34	912619104012	MUTHULAKSHMI G	III / CSE	a	a	/	/	/	/	/	/	/	/	08	Muthulakshmi
35	912619104013	MUTHU MEENAKSHI M	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Muthu
36	912619104014	NIROSHIKA R	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Niroshika
37	912619104017	PARAMESHWARI S	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Parameswari
38	912619104019	RANJANI K	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Ranjani
39	912619104020	RILWANA PARVEEN J	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Rilwana
40	912619104021	ROOPINA R	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Roopina
41	912619104022	SANDHIYA B	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Sandhya
42	912619104023	SANTHI D	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Santhi
43	912619104024	SARANYA C	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Saranya
44	912619104027	SNEHA R	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Sneha
45	912619104029	SURIYA JOTHI S	III / CSE	/	/	/	/	a	a	/	/	/	/	08	Suriya
46	912619104301	ABINAYA S	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Abinaya



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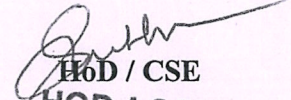
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48	912620104002	HEMA V	II / CSE	/	/	/	/	/	/	/	/	/	/	10	V. Hema
49	912620104003	ISWARYA R	II / CSE	/	/	/	/	/	/	/	/	/	/	10	R. Iswarya
50	912620104004	KALAIVANI S	II / CSE	/	/	/	/	/	/	/	/	/	/	10	S. Kalaivani
51	912620104005	KALPANA K	II / CSE	/	/	/	/	/	/	/	/	/	/	10	K. Kalpana
52	912620104007	MEIYYAMMAL M	II / CSE	/	/	/	/	/	/	/	/	/	/	10	M. Meiyyammal
53	912620104008	NANDHINI P	II / CSE	/	/	/	/	/	/	/	/	/	/	10	P. Nandhini
54	912620104009	PRASANNA DEVI P	II / CSE	/	/	/	/	/	/	/	/	/	/	10	P. Prasanna Devi
55	912620104010	PRISHIYA E	II / CSE	/	/	/	/	/	/	/	/	/	/	10	E. Prishiya
56	912620104012	ROSAMMAL M	II / CSE	/	/	/	/	/	/	/	/	/	/	10	M. Rosammal
57	912620104013	ROSHIKA K	II / CSE	/	/	/	/	/	/	/	/	/	/	10	K. Roshika
58	912620104014	SABHA AYSHA S	II / CSE	/	/	/	/	/	/	/	/	/	/	10	S. Sabha Aysha
59	912620104015	SATHIYASRI P	II / CSE	/	/	/	/	/	/	/	/	/	/	10	P. Sathiyasri
60	912620104016	SIVAGAMI D	II / CSE	/	/	/	/	/	/	/	/	/	/	10	D. Sivagami
61	912620104017	SIVAHARINI S	II / CSE	/	/	/	/	/	/	/	/	/	/	10	S. Sivaharini
62	912620104018	SUBASHINI C	II / CSE	/	/	/	/	/	/	/	/	/	/	10	C. Subashini
63	912620104019	SUBASHINI M	II / CSE	/	/	/	/	/	/	/	/	/	/	10	M. Subashini
64	912620104020	SWETHA D	II / CSE	/	/	/	/	/	/	/	/	/	/	10	D. Swetha

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65	912620104021	VANATHI T	II / CSE	/	/	/	/	/	/	/	/	/	/	10	T.Vathy
66	912620104022	VINCIYA MARY S	II / CSE	/	/	/	/	/	/	/	/	/	/	10	S. Vijaya
67	912620104301	AARTHI P	II / CSE	a	a	/	/	/	/	/	/	/	/	10	Arthy
68	912620104303	JANANI B	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Jany
69	912620104304	VAISHNAVI R	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Vaishy


CC Coordinator


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Report on Certificate Course

Title:	R Language Basics				
Resource Person:	Ms. S.Jayapratha AP / CSE				
Date of conduct from :	07.03.2022	To:	11.03.2022	Duration:	30 Hours
Organized Department :	COMPUTER SCIENCE AND ENGINEERING				
Participant Year:	2,3,4(CSE)	Semester:	EVEN	No. of Students Registered :	69
Venue:	Auditorium				

Outcome of Certificate Course (CC)

At the end of the Certificate course the student can able to

Develop an R script and execute it

Install, load and deploy the required packages, and build new packages for sharing and reusability

Extract data from different sources using API and use it for data analysis

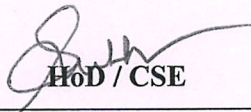
Visualize and summarize the data

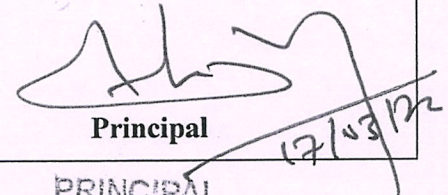
Design application with database connectivity for data analysis

Assessment Process

- Students securing **more than 60% on total score** and secured more than 75% in attendance is eligible to receive the certificate for the CC course conducted
- Total Score = $(0.5 * \text{Attendance in CC out of 100 percentage} + 0.5 * \text{Test mark in CC out of 100 marks})$


CC Coordinator


HoD / CSE


Principal
17/03/22


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KAIKKURCHI - 622 303.
PUDUKKOTTAI DISTRICT

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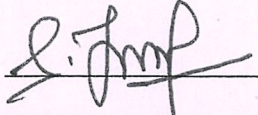
ENGINEERING COLLEGE FOR WOMEN

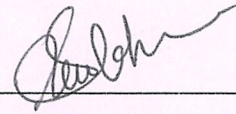
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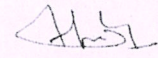



Certificate of Completion

This certificate is awarded to **Ms.G.NIVETHA** of **IV CSE** in recognition of their successful completion of certificate course on **R LANGUAGE BASICS** during the academic year 2021-2022 even semester.


Course Coordinator


HoD / CSE



Principal

Dr. **S.THILAGAVATHI** M.E., Ph.D.,
PRINCIPAL
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COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.

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Certificate of Completion

This certificate is awarded to Ms.P.DAYANA of III CSE in recognition of their successful completion of certificate course on R LANGUAGE BASICS during the academic year 2021-2022 even semester.

Course Coordinator

HoD / CSE

Principal

Dr. S.THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.

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Certificate of Completion

This certificate is awarded to Ms.K.KALPANA of II CSE in recognition of their successful completion of certificate course on **R LANGUAGE BASICS** during the academic year 2021-2022 even semester.

Course Coordinator

HoD / CSE

Principal

Dr. S:THILAGAVATHI M.E., Ph.D.,
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2021-2022 / EVEN SEMESTER

Certificate Course on “R Language Basics”

Name of the Student :

Year/Sem:

AU Register Number:

MCQ QUESTIONS (25X1 = 25 Marks)

- In 1991, R was created by Ross Ihaka and Robert Gentleman in the Department of Statistics at the University of _____
 - John Hopkins
 - California
 - Harvard
 - Auckland
- Finally, in _____ R version 1.0.0 was released to the public.
 - 2000
 - 2005
 - 2010
 - 2012
- Which of the following describes R language?
 - Free
 - Paid
 - Available for free trial only
 - Testing
- R runs on the _____ operating system.
 - Linux
 - Windows
 - Ubuntu
 - Any operating system
- Which of the following command is used to print an object “x” in R?
 - printf(x)
 - print(x)
 - printx
 - print[x]
- Advanced users can write ___ code to manipulate R objects directly.
 - C, C++
 - C++, Java
 - Java, C
 - Java
- What is NaN called?
 - Not a Number
 - Not a Numeric
 - Number and Number
 - Number a Numeric
- How can we define ‘infinity’ in R language?
 - Inf
 - Sup
 - Und
 - NaN
- Which of the following is default prompt for UNIX environment?
 - >
 - >>
 - <
 - <<

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10. What is the length of b?

b <- 2:7

- a) 4
- b) 5
- c) 6
- d) 0

11. What is the mode of 'a' in the following R code?

a <- c(1, "a", FALSE)

- a) Numeric
- b) Character
- c) Integer
- d) Logical

12. Which language is best for the statistical environment?

- a) C
- b) R
- c) Java
- d) Python

13. The open source _____ software is available for Unix, Linux, and Windows platforms.

- a) Rserve
- b) Bserve
- c) Cserve
- d) Dserve

14. R has many functions regarding _____

- a) Statistics, Biotechnology
- b) Probability, Microbiology
- c) Distributions, Physics
- d) Statistics, Probability, Distributions

15. Which is simpler for statistical programming?

- a) C
- b) Java
- c) R
- d) No language

16. The four most frequently used types of data objects in R are vectors, matrices, data frames and _____

- a) Function
- b) Lists
- c) Packages
- d) Interfaces

17. What is the simplest way of creating the vector?

- a) C function
- b) Create
- c) Destroy
- d) Invalid

18. A _____ is a set of elements appearing in rows and columns where the elements are of the same mode whether they are logical, numeric (integer or double), complex or character.

- a) Vector
- b) Matrix
- c) Lists
- d) Data frames

19. The _____ function creates a regular sequence of values to form a vector.

- a) sequel
- b) Rep
- c) seq
- d) Grep

20. Which of the following is a 3-dimensional dataset?

- a) Eris
- b) Iris
- c) Toris
- d) aris

21. The _____ function takes an arbitrary number of arguments and concatenates them one by one into character strings.

- a) copy()
- b) paste()
- c) bind()
- d) del()

22. What will be the output of the following R code?


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```
> x <- c(1, 2, NaN, NA, 4)
```

```
> is.na(x)
```

a) FALSE FALSE TRUE TRUE FALSE

b) FALSE TRUE TRUE TRUE FALSE

c) TRUE FALSE TRUE TRUE FALSE

d) TRUE FALSE TRUE FALSE FALSE

23. Which of the following R syntax is correct for while loop?

a) while (statement1) statement2

b) while (statement1) else statement2

c) while (statement1) do statement2

d) while (statement2) doelse statement2

24. _____ is used to break the execution of a loop.

a) next

b) skip

c) break

d) delete

25. What will be the output of the following R code?

```
> x <- c("a", "b", "c", "d")
```

```
> for(i in 1:4) {
```

```
+ ## Print out each element of 'x'
```

```
+ print(x[i])
```

```
+ }
```

a) [1] "a"
[1] "b"
[1] "c"
[1] "d"

b) [1] "c"
[1] "b"
[1] "a"
[1] "d"

c) [1] "d"
[1] "c"
[1] "b"
[1] "a"

d) Error

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CC Coordinator



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2021-2022 / EVEN SEMESTER

Value Added Course on “R Language Basics”

ANSWER KEY

1	d	6	b	11	b	16	b	21	a
2	a	7	a	12	b	17	a	22	a
3	a	8	a	13	a	18	b	23	a
4	d	9	a	14	d	19	c	24	c
5	b	10	c	15	c	20	b	25	a


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2021-2022 / EVEN SEMESTER

Certificate Course on “R Language Basics”

Name of the Student : P. Arathi

Year/Sem: II / 04

AU Register Number: 912620104301

MCQ QUESTIONS (25X1 = 25 Marks)

- In 1991, R was created by Ross Ihaka and Robert Gentleman in the Department of Statistics at the University of _____
a) John Hopkins
b) California
c) Harvard
d) Auckland
- Finally, in _____ R version 1.0.0 was released to the public.
a) 2000
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- Which of the following describes R language?
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c) Ubuntu
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c) printx
d) print[x]
- Advanced users can write ___ code to manipulate R objects directly.
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b) C++, Java
c) Java, C
d) Java
- What is NaN called?
a) Not a Number
b) Not a Numeric
c) Number and Number
d) Number a Numeric
- How can we define ‘infinity’ in R language?
a) Inf
b) Sup
c) Und
d) NaN
- Which of the following is default prompt for UNIX environment?
a) >
b) >>
c) <
d) <<
- What is the length of b?
a) 4
b) 5
c) 6
d) 0

24/25

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11. What is the mode of 'a' in the following R code?
 a) Numeric b) Character
 c) Integer d) Logical
12. Which language is best for the statistical environment?
 a) C b) R
 c) Java d) Python
13. The open source _____ software is available for Unix, Linux, and Windows platforms.
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 c) Cserve d) Dserve
14. R has many functions regarding _____
 a) Statistics, Biotechnology b) Probability, Microbiology
 c) Distributions, Physics d) Statistics, Probability, Distributions
15. Which is simpler for statistical programming?
 a) C b) Java
 c) R d) No language
16. The four most frequently used types of data objects in R are vectors, matrices, data frames and _____
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19. The _____ function creates a regular sequence of values to form a vector.
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 c) seq d) Grep
20. Which of the following is a 3-dimensional dataset?
 a) Eris b) Iris
 c) Toris d) aris
21. The _____ function takes an arbitrary number of arguments and concatenates them one by one into character strings.
 a) copy() b) paste()
 c) bind() d) del()
22. What will be the output of the following R code?
 a) FALSE FALSE TRUE TRUE FALSE b) FALSE TRUE TRUE TRUE FALSE
 c) TRUE FALSE TRUE TRUE FALSE d) TRUE FALSE TRUE FALSE FALSE
23. Which of the following R syntax is correct for while loop?
 a) while (statement1) statement2 b) while (statement1) else statement2
 c) while (statement1) do statement2 d) while (statement2) doelse statement2
24. _____ is used to break the execution of a loop.
 a) next b) skip
 c) break d) delete

25. What will be the output of the following R code?

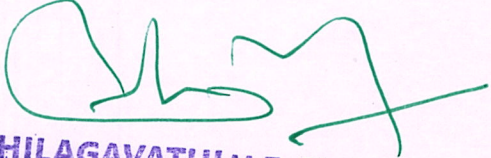
```
> x <- c("a", "b", "c", "d")  
> for(i in 1:4) {  
+ ## Print out each element of 'x'  
+ print(x[i])  
+ }
```

- a) [1] "a"
[1] "b"
[1] "c"
[1] "d"
c) [1] "d"
[1] "c"
[1] "b"
[1] "a"

b) [1] "c"
[1] "b"
[1] "a"
[1] "d"

d) Error


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2021-2022 / EVEN SEMESTER

Certificate Course on “R Language Basics”

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/ BRANCH	ATTENDANCE DETAILS		VAC-MCQ TEST		OVERALL MARK(100) (50% of A + 50% of B)
				No of Sessions Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
1	912618104001	ABIRAMI S	IV / CSE	10	100	23	92	96
2	912618104002	AKILA P	IV / CSE	10	100	24	96	98
3	912618104003	BUVANESHWARI S	IV / CSE	10	100	24	96	98
4	912618104004	EVANJELIN S	IV / CSE	10	100	22	88	94
5	912618104005	FEFINA I	IV / CSE	10	100	24	96	98
6	912618104007	GOWSALYA A	IV / CSE	10	100	22	88	94
7	912618104011	JAYANTHINI T	IV / CSE	8	80	24	96	94

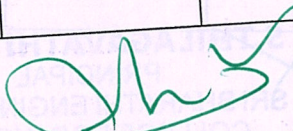
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8	912618104012	KAVIYASELVI K	IV / CSE	10	100	21	84	92
9	912618104013	KOWSALYA S	IV / CSE	10	100	24	96	98
10	912618104014	LAKSHMI N	IV / CSE	10	100	23	92	96
11	912618104015	LAKSHMI PRABHA M	IV / CSE	8	80	24	96	94
12	912618104017	MALA S	IV / CSE	10	100	24	96	98
13	912618104018	MAMTHA G	IV / CSE	10	100	24	96	98
14	912618104019	NIRANJANADEVIC	IV / CSE	10	100	23	92	96
15	912618104020	NIVEDHA M	IV / CSE	10	100	22	88	94
16	912618104021	NIVETHA G	IV / CSE	10	100	24	96	98
17	912618104022	PRIYADHARSHINI R	IV / CSE	8	80	25	100	90
18	912618104023	PRIYAVATHANI A	IV / CSE	10	100	24	96	98
19	912618104024	PUVIYARASI S	IV / CSE	10	100	23	92	96
20	912618104025	RASMI J	IV / CSE	10	100	21	84	92
21	912618104026	ROSLINA BEGUM R	IV / CSE	10	100	21	84	92


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22	912618104027	SINDHU V	IV / CSE	10	100	23	92	96
23	912618104028	SIVASANGAVI A	IV / CSE	10	100	22	88	94
24	912618104029	SURUTHIKA S	IV / CSE	10	100	21	84	92
25	912618104031	SUSHMEENA K	IV / CSE	8	80	24	96	90
26	912619104001	ANNAPOORANI M	III / CSE	10	100	25	100	100
27	912619104003	ARUNNAVAMEENA A	III / CSE	10	100	23	92	96
28	912619104004	DAYANA P	III / CSE	10	100	24	96	96
29	912619104005	DHARSHINI D	III / CSE	10	100	22	88	94
30	912619104007	FAHMIDHA B	III / CSE	10	100	24	96	98
31	912619104009	GULNAS FATHIMA S	III / CSE	10	100	22	88	94
32	912619104010	HELAN J	III / CSE	10	100	23	92	96
33	912619104011	KEERTHANA R	III / CSE	10	100	20	80	90
34	912619104012	MUTHULAKSHMI G	III / CSE	8	80	25	100	90
35	912619104013	MUTHU MEENAKSHI M	III / CSE	10	100	21	84	92

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36	912619104014	NIROSHIKA R	III / CSE	10	100	20	80	90
37	912619104017	PARAMESHWARI S	III / CSE	10	100	19	76	88
38	912619104019	RANJANI K	III / CSE	10	100	21	84	92
39	912619104020	RILWANA PARVEEN J	III / CSE	10	100	22	88	94
40	912619104021	ROOPINA R	III / CSE	10	100	24	96	98
41	912619104022	SANDHIYA B	III / CSE	10	100	24	96	98
42	912619104023	SANTHI D	III / CSE	10	100	23	92	96
43	912619104024	SARANYA C	III / CSE	10	100	19	76	88
44	912619104027	SNEHA R	III / CSE	10	100	22	88	94
45	912619104029	SURIYA JOTHI S	III / CSE	8	80	24	96	88
46	912619104301	ABINAYA S	III / CSE	10	100	22	88	94
47	912620104001	AKALYA S	II / CSE	10	100	24	96	98
48	912620104002	HEMA V	II / CSE	10	100	23	92	96
49	912620104003	ISWARYA R	II / CSE	10	100	22	88	94

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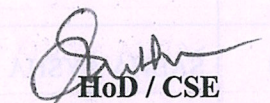
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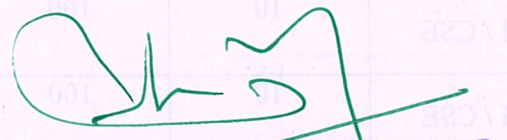
50	912620104004	KALAIVANI S	II / CSE	10	100	22	88	94
51	912620104005	KALPANA K	II / CSE	10	100	23	92	96
52	912620104007	MEIYYAMMAL M	II / CSE	10	100	24	96	98
53	912620104008	NANDHINI P	II / CSE	10	100	23	92	96
54	912620104009	PRASANNA DEVI P	II / CSE	10	100	21	84	92
55	912620104010	PRISHIYA E	II / CSE	10	100	19	76	88
56	912620104012	ROSAMMAL M	II / CSE	10	100	19	76	88
57	912620104013	ROSHIKA K	II / CSE	10	100	20	80	90
58	912620104014	SABHA AYSHA S	II / CSE	10	100	22	88	94
59	912620104015	SATHIYASRI P	II / CSE	10	100	23	92	96
60	912620104016	SIVAGAMI D	II / CSE	10	100	22	88	94
61	912620104017	SIVAHARINI S	II / CSE	10	100	20	80	90
62	912620104018	SUBASHINI C	II / CSE	10	100	23	92	96
63	912620104019	SUBASHINI M	II / CSE	10	100	19	76	88

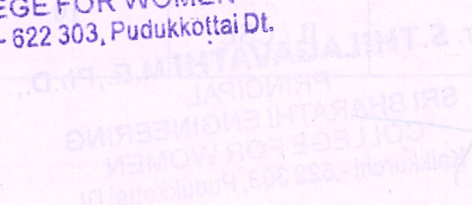
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 Kaikkurchi - 622 303, Pudukkottai Dt.

64	912620104020	SWETHA D	II / CSE	10	100	18	72	86
65	912620104021	VANATHI T	II / CSE	10	100	19	76	88
66	912620104022	VINCIYA MARY S	II / CSE	10	100	21	84	92
67	912620104301	AARTHI P	II / CSE	8	80	24	96	88
68	912620104303	JANANI B	II / CSE	10	100	23	92	96
69	912620104304	VAISHNAVI R	II / CSE	10	100	24	96	98


CC Coordinator


HoD / CSE
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KURICHI,
PUDUKKOTTAI - 622 303


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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Criteria 2

Teaching-Learning and Evaluation

350

Key Indicator- 2.3. Teaching- Learning Process (40)

2021-2022

**COMPUTER SCIENCE AND
ENGINEERING**

**PARTICIPATIVE LEARNING
SYMPOSIUM AND WORKSHOP**



SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PARTICIPATIVE LEARNING (SYMPOSIUM/WORKSHOP/SEMINAR)

ACADEMIC YEAR (2021 - 2022)

S.No	Register No	Student Name	Year/ Sem	Name of the Participative Learning Method
1.	912619104005	D.Dharshini	III/ V	Workshop - "Centroid of Engineering in AI & ML"
2.	912619104007	B.Fahmidha		
3.	912619104023	D.Santhi		
4.	912619104009	S.Gulnas Fathima		
5.	912619104001	M.Annapoorani	III/ V	"C Programming Quiz"
6.	912619104007	B.Fahmidha		
7.	912619104009	S.Gulnas Fathima		
8.	912619104010	J.Helan		
9.	912620104014	S.Sabhaaysha	II/ III	"C Programming Language"
10.	912619104005	D.Dharshini	III/ VI	National level Contest "TECHNOVATION 22"
11.	912619104007	B.Fahmidha		
12.	912619104009	S.Gulnas Fathima		
13.	912619104013	M.Muthu Meenakshi		
14.	912619104014	R.Niroshika		
15.	912619104021	R,Roopina		
16.	912619104022	B.Sandhiya		
17.	912619104024	C.Saranya		
18.	912619104029	S.Suriyajothi		
19.	912619104007	B.Fahmidha	III/ VI	Symposium - "Q Factorial " Event (ACGCET)
20.	912619104014	R.Niroshika	III/ VI	Symposium - "CODE UTOPIA" Event (ACGCET)
21.	912619104003	S.Aruna Nava Meena	III/ VI	Symposium – Paper Presentation (ACGCET)
22.	912619104009	S.Gulnas fathima		
23.	912619104010	J.Helan		
24.	912619104019	K.Ranjani		
25.	912619104020	J.Rilwana parveen		
26.	912619104021	R.Roopina		
27.	912619104023	D.Santhi		
28.	912619104024	C.Saranya		


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Dr.S.MUTHUKUMAR
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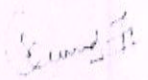
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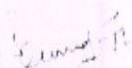
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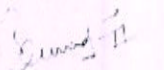


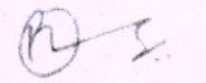
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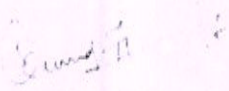
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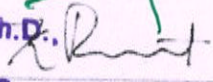
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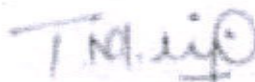
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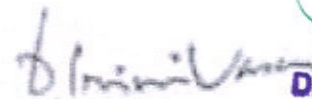
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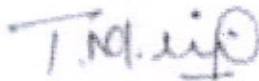
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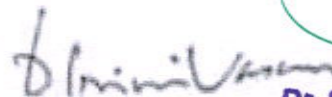
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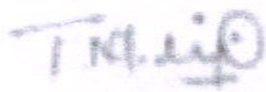
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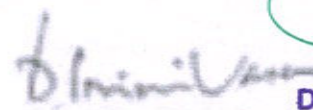
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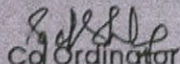
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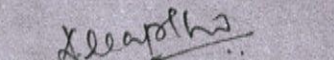
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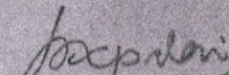

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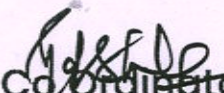
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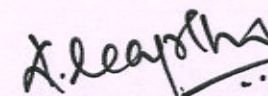
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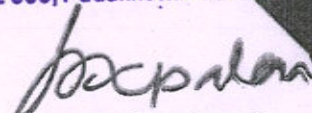
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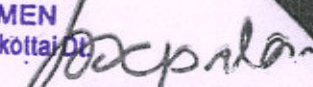
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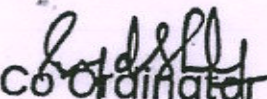
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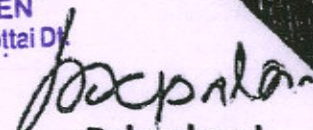
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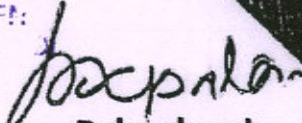
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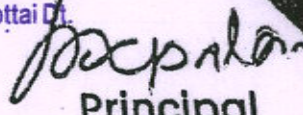
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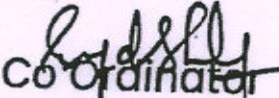
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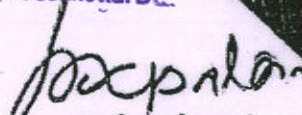
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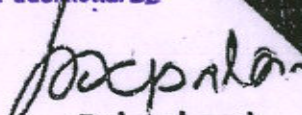
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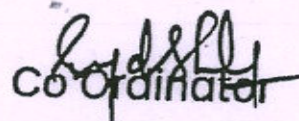
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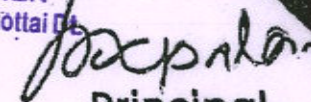
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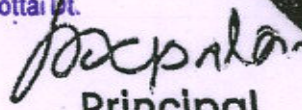
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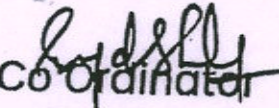
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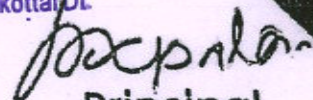
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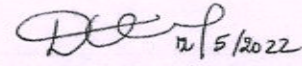
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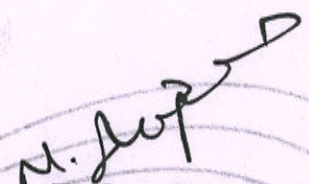
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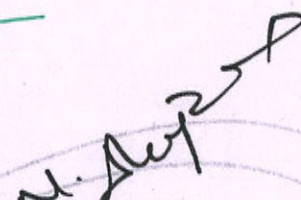
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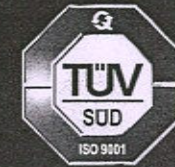

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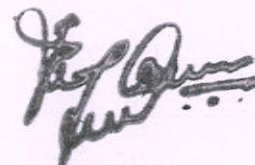
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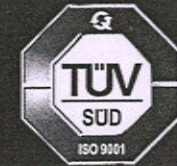
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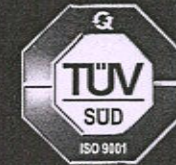
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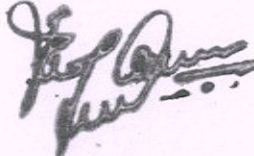
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