SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Accredited "A" Grade by NAAC | 12B Status by UGC | Approved by AICTE

www.sathyabama.ac.in

Continuous Assessment Exam II (March 2021)

Program	: B.E(CSE)/B.TECH(IT)	**Max. Marks**	: 30
Course	: R Programming	**Time**	: 1 Hour
Course code	: SCS1621	**Semester**	: VI
Batch	: 2018-2022	**Date**	: 08-5-2021

Part-A	**Answer ALL the questions**	**(5×2=10)**

Q.No	Questions	CO (L)
1.	Give the R expression to get 26 heads from a 51 tosses of a coin using binomial probability.	3(3)
2.	a) True-False: Is Logistic regression a supervised machine learning algorithm. b) What is the function used to implement logistic Regression?	3(3)
3.	X is the vector c(5,9.2,3,8.51,NA), What is the output of mean(x)?Justify your answer	3(3)
4.	Differentiate supervised and unsupervised learning.	4(4)
5.	How do you plot clustering output in R?	4(1)

Part-B	**Answer ALL the questions**	**(2×10=20)**

Q.No	Questions	CO (L)

6.	1. a)Explain Linear regression.
	  b) Heights(in cm) of father and son are given as follows
	  Father(X) 150 152 155 157 160 161 164 165
	  Son (Y) 154 156 158 159 160 162 161 164
	  Fit a regression line predict the height of son given the height of father in R.
		3(6)

	(OR)	
7.	Explain in detail implementation of ARIMA model in R Programming.	3(4)

Q.No	Questions	CO (L)
8.	Explain Decision Tree. Construct the Decision Tree model for any data set and also check the prediction accuracy of constructed model.	4(4)
	(OR)	
9.	Explain Association Rule Mining. Generate Association Rules with support =0.003 and confidence=0.4 for Market Basket Analysis data in R.	4(4)