Reg. No:

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech IV Year I Semester Supplementary Examinations August-2021
STATISTICAL MACHINE LEARNING
(Computer Science & Information Technology)

Time: 3 hours   Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)

UNIT-I

1	a	Describe in detail about the role of features in Machine Learning.	7M
	b	What are the issues in Machine Learning?	5M

OR

2	a	Explain in detail about PAC Learning.	6M
	b	Explain about learning a class from examples in supervised learning.	6M

UNIT-II

3	a	Explain Discriminant functions in Bayesian Decision Theory.	8M
	b	Explain Utility Theory in Bayesian Decision Theory.	4M

OR

4	a	What is Parametric Method? Explain Parametric Classification.	7M
	b	Explain about Association Rules in Bayesian Decision Theory	5M

UNIT-III

5	Elaborate about the Maximal Margin Classifier.	12M

OR

6	a	What is Support Vector Machine? Explain how Support Vector Machine works?	8M
	b	Write short notes on Classification with Non-Linear Decision Boundaries.	4M

UNIT-IV

7	a	What are the Principal Components? Discuss the uses of Principal Components.	8M
	b	Explain about Principal Component Analysis.	4M

OR

8	a	Explain about K-means algorithm with an example.	6M
	b	With an example explain Hierarchical clustering?	6M

UNIT-V

9	a	Illustrate in detail about Model Based Learning.	6M
	b	Differentiate between Reinforcement Learning and Supervised Learning	6M

OR

10	Explain in detail about Temporal Difference Learning	12M

*** END ***