SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)
Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai
Accredited by NAAC-UGC with 'A++' Grade (Cycle III) &
Accredited by NBA (B.E - CSE, EEE, ECE, Mech &B.Tech.IT)
COIMBATORE-641 035, TAMIL NADU

DEPARTMENT OF COMPUTER APPLICATIONS

QUESTIONBANK

II SEMESTER

MACHINE LEARNING

Regulation–2023

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UNIT I
PART –A

1.	Define Machine Learning.	BTL 1	Remembering
2.	Define the useful perspective on machine learning.	BTL 2	Understanding
3.	Compare learning vs programming.	BTL 2	Understanding
4.	Examine the importance of machine learning algorithms.	BTL 4	Analyzing
5.	Distinguish between underfitting and overfitting in ML algorithms	BTL 4	Analyzing
6.	Summarize algorithm technique in ML	BTL 2	Understanding
7.	What are major components involved in each machine algorithm?	BTL 1	Remembering
8.	List different forms of learning.	BTL 1	Remembering
9.	How does noise influence the training process of a machine learning model?	BTL 4	Analyzing
10.	Build the machine learning framework.	BTL 3	Applying
11.	Draw basic learning system model.	BTL 3	Applying
12.	What are the factors affecting the performance of machine learning algorithm?	BTL 1	Remembering
13.	Compare generic machine model and discriminate machine learning model.	BTL2	Understanding
14.	Note down the formula for determining the dependent feature's output in linear regression.	BTL 1	Remembering
15.	Discuss major applications of machine learning.	BTL 6	Creating
16.	Define Gaussian process.	BTL 2	Understanding
17.	Distinguish Joint probability vs conditional probability.	BTL 4	Analyzing
18.	Pointout/examine supervised learning category and technique.	BTL 4	Analyzing
19.	Define maximum likelihood estimation(MLE).	BTL 2	Understanding
20.	Explain semisupervised learning?	BTL 5	Evaluating
21.	Explain Inductive machine learning?	BTL 5	Evaluating
22.	Depict the important objectives of machine learning?	BTL1	Remembering
23.	Let's say that there are some empty marks in the student dataset. How can accuracy be determined while avoiding noise?	BTL 4	Analyzing
24.	Connect Generalization with regularization.	BTL 4	Analyzing
25.	Identify the parameters in a perceptron network and its significance	BTL 2	Understanding
26.	Discuss the difference between training set and testing set.	BTL 6	Creating
27.	List the applications of Machine Learning.	BTL 1	Remembering

PART–B

Q.No.	Questions	Marks	BTLevel	Competence
1	What is machine learning? Discuss about learning and machine learning. Choose various types of machine learning.	13	BTL1	Remembering
2	Demonstrate the supervised learning structure.	13	BTL2	Understanding
3	Explain briefly about unsupervised learning structure?	13	BTL2	Understanding
	Can you provide an overview of popular machine learning models and the specific algorithms that implement them?	13	BTL2	Understanding
4	Examine in detail about machine learning process with an example.	13	BTL4	Analyzing
5	Explain various learning techniques involved in supervised learning?	13	BTL5	Evaluating
6	Explain various learning techniques involved in unsupervised learning?	13	BTL5	Evaluating
7	How to develop/frame inductive learning and summarize the machine learning process?	13	BTL1	Remembering
8	Explain generative machine learning model and analyze how it differ from discriminative machine learning model?	13	BTL2	Understanding
	Construct different kinds of machine learning types, and which algorithms work best with each kind?	13	BTL2	Understanding
9	What is Gaussian process?And explain in detail of Gaussian parameter estimates with suitable examples.	13	BTL2	Understanding
10	Develop procedure in parameter estimation for Bayesian parameter estimation.	13	BTL3	Applying
	Improve the Diagnosis of Machine Learning Model Performance using Learning Curves	13	BTL3	Applying
11	Discuss about MLE and how it derive from MAP and extreme estimator.	13	BTL6	Creating
12	Summarize the advantages and disadvantages of Gaussian process	13	BTL2	Understanding
13	Explain list of application software tools used in machine learning and describe each tools in details.	13	BTL1	Remembering
14	Short note on a)Bias and variance b)Bias and variance tradeoff	6, 7	BTL2	Understanding
15	Find the covariance and correlation coefficient of data X={1,2,3,4,5} And Y={1,4,9,16,25)	15	BTL6	Creating