SILVER OAK UNIVERSITY
EDUCATION TO INNOVATION

College of Technology (01)
Silver Oak College of Engineering and Technology
Bachelor of Technology
Department of Computer Engineering (004)

Semester:	VI	Academic Year:	2022-23
Subject Name:	Artificial Intelligence And Machine Learning	Subject Code:	1010043341

Question Bank

UNIT-1

SR NO.	Question Text	Marks	CO Number	Level of Bloom's Taxonomy
1	Define: AI. List down the application of AI and explain any one.	4	CO1	BTL4
2	Explain the problem characteristics of AI.	8	CO1	BTL2
3	Analyze (a) 8-puzzle, (b) Chess and (c) Tower of Hanoi problems with respect to the following problem characteristics: I. Is the problem decomposable?	3	CO1	BTL2

	II. Can solution steps be ignored? III. Is the good solution absolute or relative? IV. Is the solution state or a path? V. What is the role of knowledge?			
4	Difference between: ANN and BNN.	3	CO1	BTL1
5	Explain different types of learning with examples.	3	CO1	BTL1
6	Difference between: Supervised and Unsupervised Learning.	3	CO1	BTL1
7	Explain the elements of data science.	8	CO1	BTL4
8	Explain Data Visualization techniques.	4	CO1	BTL4

UNIT-2

SR NO.	Question Text	Marks	CO Number	Level of Bloom's Taxonomy
1	What is exploratory data analysis?	4	CO1	BTL1
2	Explain descriptive statistics.	4	CO1	BTL3
3	Difference between data and histogram	3	CO1	BTL2
4	Explain 3Ms.	3	CO1	BTL4

5	Explain Measure of Dispersion	3	CO1	BTL4
6	Explain 5 number summary(Box-Plot Summary)	3	CO1	BTL4

UNIT-3

SR NO.	Question Text	Marks	CO Number	Level of Bloom's Taxonomy
1	Explain the concept of probability and its type.	3	CO2	BTL1
2	Difference between: Descriptive and Inferential Statistics	4	CO2	BTL1
3	Explain types of Inferential Statistics.	3	CO2	BTL6
4	Explain Random Variables with its type.	4	CO2	BTL4
5	Explain the Central Limit theorem with its rules.	3	CO2	BTL1
6	Explain sampling distribution with its types	4	CO2	BTL1
7	Explain Cross Validation with its types	8	CO2	BTL6
8	Explain Bayesian theorem with its importance	4	CO2	BTL4

UNIT- 4

SR NO.	Question Text	Marks	CO Number	Level of Bloom's Taxonomy
1	What is Supervised learning? Explain the problems in Supervised learning.	4	CO4	BTL2
2	Difference between: Classification and Regression	3	CO4	BTL1
3	Explain Linear Regression.	3	CO4	BTL2
4	Explain Logistic Regression.	4	CO4	BTL1
5	Explain Polynomial Regression.	4	CO4	BTL2
6	Explain Decision Tree	8	CO4	BTL1
7	Explain Random Forest	8	CO4	BTL2
8	Explain Naive Bayes	4	CO4	BTL1
9	Explain SVM.	4	CO4	BTL1

UNIT-5

SR NO.	Question Text	Marks	CO Number	Level of Bloom's Taxonomy
1	Explain Unsupervised Learning? Explain the problems in Unsupervised learning.	4	CO3	BTL4
2	Explain K-means.	8	CO3	BTL3
3	Explain PCA.	4	CO3	BTL1
4	Explain Different Libraries of Python	4	CO3	BTL1

UNIT-6

SR NO.	Question Text	Marks	CO Number	Level of Bloom's Taxonomy
1	Explain neural networks. List down the applications, advantages,and limitations of NN.	8	CO3	BTL4
2	Explain Topologies of NN.	4	CO3	BTL1
3	Explain perceptron.	8	CO3	BTL3
4	Explain feed forward NN.	4	CO3	BTL1
5	Explain multi-layer perceptron.	8	CO3	BTL5
6	Explain CNN.	4	CO3	BTL2

7	Explain RNN.	4	CO3	BTL2
8	Define: Training, Testing and validation	3	CO3	BTL1
9	Define Parameter Estimation: MLE,MAP, Bayesian estimation.	3	CO3	BTL1

UNIT-7

SR NO.	Question Text	Marks	CO Number	Level of Bloom's Taxonomy
1	What is deep learning? List down the applications of deep learning and explain any one.	8	CO3	BTL4
2	Write down the Steps to build ANN.	8	CO3	BTL3
3	Define optimizers. List down the types of optimizers.	4	CO3	BTL1
4	Explain Gradient Descent	8	CO3	BTL5
5	Explain Stochastic Gradient Descent	4	CO3	BTL2

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