

Model Question Paper-I
Fourth Semester B.E. Degree Examination
Machine Learning Fundamentals

TIME: 03 Hours

Max. Marks: 100

Note: 01. Answer any FIVE full questions, choosing at least ONE question from each module

QNo	Module -1		*Bloom's Taxonomy Level	Marks
Q 1	a	List and Explain the applications of Artificial Intelligence (AI).	L2	10
	b	Define Machine learning. Explain the different types of Machine learning.	L3	10
OR				
Q 2	a	With a neat diagram , Explain the Machine learning workflow.	L3	10
	b	Explain the concepts of NumPy , Pandas and Matplotlib with an example.	L2	10
Module -2				
Q 3	a	Explain Regression and Classification with an example.	L2	10
	b	What is Linear Regression and Logistic Regression? Explain with an example.	L3	10
OR				
Q 4	a	Explain Decision tree with an example.	L2	10
	b	Explain Random forest with an example.	L2	10
Module -3				
Q 5	a	How to implement Support Vector Machine (SVM) in Machine learning.	L3	10
	b	Explain the concept of K-Nearest Neighbour (KNN) in Machine learning.	L2	10
OR				
Q 6	a	Explain Naïve Bayes Classifier with an Example.	L2	10
	b	List and Explain different Evaluation Metrics in Machine Learning.	L2	10
Module -4				
Q 7	a	Explain the different types of clustering algorithm used in Machine learning.	L2	10
	b	Define PCA ? How does the Principal component analysis work.	L3	10
OR				
Q 8	a	Explain the Dimensionality reduction techniques.	L2	10

	b	Explain the Association rule mining and Anomaly detection.	L2	10
Module -5				
Q 9	a	Define Reinforcement learning ? What are the applications of Reinforcement learning in detail.	L2	10
	b	How Markov decision processes works in Machine learning.	L3	10
OR				
Q 10	a	Explain how Markov Q-Learning works in Reinforcement Learning	L2	10
	b	What is Deep Reinforcement learning? Explain the two classes of Dynamic programming.	L3	10