G. VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), KOVILPATTI – 628 502.

UG DEGREE END SEMESTER EXAMINATIONS - NOVEMBER 2024.

(For those admitted in June 2021 and later)

PROGRAMME AND BRANCH: B.COM., BUSINESS ANALYTICS

SEM	CATEGORY	COMPONENT	COURSE CODE	COURSE TITLE
IV	PART - III	ELECTIVE GENERIC - 2	U21BA4A2	MACHINE LEARNING

Date & Session: 16/11/2024 / AN   **Time : 3 hours**   **Maximum: 75 Marks**

Course Outcome	Bloom's K-level	Q. No.	SECTION – A (10 X 1 = 10 Marks) Answer ALL Questions.
CO1	K1	1.	Which of the following is NOT a key aspect of machine learning? a) Data acquisition b) Model selection c) Feature engineering d) Human intuition
CO1	K2	2.	Which of the following is NOT an application of machine learning? a) Fraud detection b) Weather prediction c) Image recognition d) Cooking recipes
CO2	K1	3.	Which algorithm is most suitable for binary classification problems? a) Linear regression b) Logistic regression c) K-means d) Principal component analysis
CO2	K2	4.	Which of the following is NOT a common application of supervised learning? a) Spam detection b) Sentiment analysis c) Market segmentation d) Image classification
CO3	K1	5.	Which of the following algorithms is commonly used for partitional clustering? a) K-means b) Agglomerative clustering c) Decision trees d) Naive Bayes
CO3	K2	6.	Which of the following is NOT an application of unsupervised learning? a) Customer segmentation b) Image classification c) Anomaly detection d) Market basket analysis
CO4	K1	7.	Which of the following is a key terminology used in reinforcement learning? a) Target variable b) Reward c) Label d) Hyperparameter
CO4	K2	8.	Which of the following is a widely used model for reinforcement learning? a) Deep Q-Networks (DQN) b) Logistic regression c) K-means clustering d) Random forests
CO5	K1	9.	Which of the following is a type of semi-supervised learning algorithm? a) K-means b) Self-training c) Logistic regression d) Q-learning
CO5	K2	10.	Which of the following is NOT a semi-supervised learning algorithm? a) Self-training b) Q-learning c) Graph-based learning d) Low-density separation

Course Outcome	Bloom's K-level	Q. No.	SECTION – B (5 X 5 = 25 Marks) Answer ALL Questions choosing either (a) or (b)
CO1	K3	11a.	Definition Of Machine Learning?
			(OR)
CO1	K3	11b.	Explain about the key aspects of Machine Learning?
CO2	K3	12a.	Explain about the Logistic regression?
			(OR)
CO2	K3	12b.	Discuss about the applications of supervised learning?
CO3	K4	13a.	Definition of Unsupervised Learning?
			(OR)
CO3	K4	13b.	Discuss about partitional clustering and Hierarchical clustering?
CO4	K4	14a.	Explain about the terminologies used in Reinforcement learning?
			(OR)
CO4	K4	14b.	Discuss about the types of Reinforcement learning?
CO5	K5	15a.	Definition of semi-supervised Learning?
			(OR)
CO5	K5	15b.	Explain about the assumptions followed semi-supervised Learning?

Course Outcome	Bloom's K-level	Q. No.	SECTION – C (5 X 8 = 40 Marks) Answer ALL Questions choosing either (a) or (b)
CO1	K3	16a.	Brief about the applications of Machine Learning ?
			(OR)
CO1	K3	16b.	Compare between the Machine Learning (ML) and Artificial Intelligence(AI)?
CO2	K4	17a.	Discuss about K-Nearest Neighbour algorithm (KNN)?
			(OR)
CO2	K4	17b.	Brief about Supervised Learning and what are the steps involved in SL?
CO3	K4	18a.	Compare between the Supervised Learning and Unsupervised learning?
			(OR)
CO3	K4	18b.	Discuss about applications of Unsupervised learning and explain their advantages and disadvantages'?
CO4	K5	19a.	Brief about the Reinforcement Learning and explain their work flow?
			(OR)
CO4	K5	19b.	Discuss about applications of Reinforcement learning and explain their Pros and Cons'?
CO5	K5	20a.	Brief about the Semi-Supervised Learning and explain their work flow?
			(OR)
CO5	K5	20b.	Discuss about Real time applications of Semi-Supervised Learning and their Pros and Cons'?