

GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING FOR WOMEN
(AUTONOMOUS)

(Affiliated to Andhra University, Visakhapatnam)

I M. Tech II Semester Regular Examinations, August- 2026

Machine Learning-24CS21RC05

(Common to CSE, CSE(DS))

Scheme of Valuation

Q. No.	Sub Q. No.	Scheme of Valuation	Marks allotted
1.	a.	- Relationship between Artificial Intelligence, Machine Learning, and Deep Learning. - Examples	5M 2M
1.	b.	Major benefits of Machine Learning systems	7M
2.	a.	- Types of Machine Learning - Examples	5M 2M
2.	b.	Differentiate between batch learning and online learning	7M
3.	a.	- Types of regularization in Machine Learning - Explanation	3M 4M
3.	b.	- k-Nearest Neighbours algorithm. - Explanation	4M 3M
4.	a.	Compare k-NN and Naïve Bayes classification	7M
4.	b.	- Concept of accuracy, precision, recall, F1-score, and confusion matrix - Examples.	5M 2M
5.	a.	- Concept of a separating hyperplane, support vectors - Objective of SVM classification.	5M 2M
5.	b.	Compare LDA, linear SVM, nonlinear SVM, and SVM regression.	7M
6.	a.	- Explanation of linear SVM - Diagram	5M 2M
6.	b.	- Basic principle, working process of LDA - LDA for classification.	5M 2M
7.	a.	- Random Forests construction using decision trees - Advantages over a single decision tree	4M 3M
7.	b.	- Major strengths of the Decision Tree approach - Weaknesses of the Decision Tree	4M 3M
8.	a.	Boosting techniques in Ensemble Learning.	4M

		Stacking techniques in Ensemble Learning.	3M
8.	b.	- Steps to constructing a decision tree using ID3 - Attribute selection for splitting	4M 3M
9.	a.	- Feature selection with suitable examples. - Feature extraction with suitable examples.	4M 3M
9.	b.	Any seven Differences between Incremental PCA, Randomized PCA, and Kernel PCA.	7M
10.	a.	- Explanation of Artificial Neural Networks - ANN to classification problems	3M 4M
10.	b.	- Basic steps involved in PCA. - Explanation	4M 3M

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