

G. Narayanamma Institute of Technology & Science**(Autonomous)****(for Women)**

Shaikpet, Hyderabad- 500 104

III-B.Tech II-Semester Supplementary Examinations, Dec-24/Jan-25**INTRODUCTION TO MACHINE LEARNING****(Common to CSM & CSD)****Max. Marks: 70****Time: 03 Hours****Note:**

1. Question paper comprises of **Part A** and **Part B**.
2. **Part A** is compulsory which carries 10 marks. Answer all questions in Part A.
3. **Part B** (for 60 marks) consists of **five questions** with **“either” “or”** pattern. Each question carries 12 marks and may have a,b,c as sub questions. The student has to answer any one full question.

PART-A*(Answer 05 questions. Each question carries 2 marks)*

Q.No.	Question	Marks	CO	B L
Q.1	a) What is Machine Learning and why is it important?	[02]	CO1	[L2]
	b) What is maximum likelihood estimation in machine learning?	[02]	CO2	[L1]
	c) What are the applications of a decision tree classification?	[02]	CO3	[L3]
	d) List the advantages of the KNN Algorithm.	[02]	CO4	[L2]
	e) What are the limitations of genetic algorithms?	[02]	CO5	[L4]

END OF PART A**PART-B***(Answer 05 full questions. Each question carries 12 marks)*

Q.No.	Question	Marks	CO	B L
Q.2	Explain the disciplines have their influence on machine learning with examples	[12]	CO1	[L2]
OR				
Q.3	Explain concept learning in detail?	[12]	CO1	[L1]
Q.4	Explain regression models in Machine Learning with suitable examples?	[12]	CO2	[L2]
OR				
Q.5	Explain Kernel methods in SVM models?	[12]	CO2	[L1]
Q.6	Explain Bayes theorem with suitable example	[12]	CO3	[L3]
OR				
Q.7	Discuss decision tree learning in machine learning with an example?	[12]	CO3	[L3]

Q.8	Explain k-Nearest-Neighbor Classification with an example	[12]	CO4	[L3]
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OR

Q.9	Explain k-means clustering with an example?	[12]	CO4	[L3]
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Q.10	Discuss reinforcement learning in machine learning with an example?	[12]	CO5	[L3]
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OR

Q.11	What is genetic algorithm? How it works	[12]	CO5	[L2]
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END OF PART B
END OF THE QUESTION PAPER