



PAPER ID-410113

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Subject Code: RCS080

Roll No:

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BTECH
(SEM VIII) THEORY EXAMINATION 2023-24
MACHINE LEARNING

TIME: 3 HRS**M.MARKS: 70**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. **Attempt all questions in brief.** **2 x 7 = 14**

a.	What do you understand by the Learning problems?
b.	Define Machine learning.
c.	Explain perceptron in Artificial Neural Networks.
d.	Discuss the role of Activation Function in ANN.
e.	Explain Bayes Theorem.
f.	Define Computational Learning Theory.
g.	Differentiate between Reinforcement Learning and Artificial Intelligence.

SECTION B

2. **Attempt any three of the following:** **7 x 3 = 21**

a.	Explain the Concept Learning Task in ML with an example.
b.	Describe Adeline Network with its advantages over Perception.
c.	Discuss about the latest trends and fields in machine learning with the help of suitable examples.
d.	Discuss Radial basis function networks under Instance based Learning.
e.	Write short notes on:- 1. Genetic Programming 2. Models of Evolution and Learning

SECTION C

3. **Attempt any one part of the following:** **7 x 1 = 7**

a.	Differentiate between Find-S and candidate elimination algorithm.
b.	List the steps involved in Designing a Learning System

4. **Attempt any one part of the following:** **7 x 1 = 7**

a.	Discuss in detail about the designing of appropriate machine learning algorithms and their application to the real-world problems.
b.	Explain in detail various issues in Decision Tree Learning

5. **Attempt any one part of the following:** **7 x 1 = 7**

a.	Write short note on Bayesian belief networks.
b.	Explain the following:- 1. Basics of Sampling Theory 2. Bayes Optimal Classifier

6. **Attempt any one part of the following:** **7 x 1 = 7**

a.	Differentiate Between Conventional Learning and Instance based Learning.
b.	Discuss the principles of a Case-based learning.

7. **Attempt any one part of the following:** **7 x 1 = 7**

a.	Explain the working of Q Learning Algorithm in Reinforcement Learning.
b.	Explain the operations involved in Hypothesis Space searching through Genetic algorithm.



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