



R17 Regulation

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A' Grade)

Subject code: 1P7EC

B.Tech IV Year I Semester Regular Examinations, February 2021

MACHINE LEARNING
(Computer Science and Engineering)

Maximum Marks: 70

Date: 25.02.2021 Duration: 3 hours

- Note:**
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10x2M=20 Marks)

- 1 What are the features that are required to well define a learning problem?
- 2 Define the term Concept Learning.
- 3 State the issues in decision tree learning
- 4 Define the term Artificial Neural Network
- 5 State Bayes Theorem
- 6 Define the term Locally Weighted Regression
- 7 State the concept of First Order Rules.
- 8 What is the need for Prolog-EBG
- 9 Define Inductive Approach.
- 10 State the principle of Analytical Learning.

Part-B

Answer All the following questions. (10M X 5=50Marks)

- 11 a) Explain about the various Perspectives and issues in machine learning. (5M)
b) Explain in detail about Well Posed Learning Problem. (5M)
OR
- 12 Explain about Concept Learning, its types and the various methods of learning a concept. (10M)
- 13 Explain the decision tree learning algorithm in detail. (10M)
OR
- 14 Explain the Back Propagation Algorithm with example. (10M)
- 15 a) Explain about Bayes theorem. (5M)
b) Explain about Bayes optimal Classifier. (5M)
OR
- 16 a) Explain in detail about K- Nearest Neighbor algorithm. (10M)
- 17 Explain in brief about the Sequential Covering Algorithms. (10M)

OR

18 Explain the process of First-Order Inductive Learner (FOIL) Algorithm. (10M)

19 Discuss in brief about Analytical approach to Learning. (10M)

OR

20 Explain briefly about Reinforce learning. (10M)