Code No: 156BN

R18

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year II Semester Examinations, August/September - 2021

MACHINE LEARNING

(Computer Science and Engineering)

Time: 3 Hours **Max. Marks: 75**

Answer any five questions

All questions carry equal marks

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1.a)	Define Well-Posed problem. Illustrate any four examples for Well-Posed problems.	
b)	What do you mean by Candidate elimination? Explain.	[7+8]
2.a)	What are the concepts of learning as search? Discuss.	
b)	Discuss the appropriate problems for decision tree learning.	[8+7]
3.a)	Contrast the hypothesis space search in ID3 and candidate elimination algorithm.	
b)	Explain the Back propagation learning algorithm and its limitations.	[7+8]
4.a)	How a multi layered network learns using a gradient descent algorithm? Discuss.	
b)	Explain the methods for comparing the accuracy of two hypotheses.	[8+7]
5.a)	State Bayes theorem. Illustrate Bayes theorem with an example.	
b)	Describe the mistake bound model of learning.	[8+7]
6.a)	Explain Gibs algorithm with an example.	
b)	State and explain the Minimum Description Length Principle.	[8+7]
7.a)	Discuss about Hypothesis space search in genetic algorithms.	
b)	Write the basic algorithm for learning sets of First-Order Rules.	[8+7]
8.a)	Discuss Explanation-Based learning of search control knowledge.	
b)	Explain the inductive analytical approaches to learning.	[8+7]

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