R18

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech III Year II Semester Examinations, February - 2023
MACHINE LEARNING
(Computer Science and Engineering)

Time: 3 Hours   Max. Marks: 75

Note: i) Question paper consists of Part A, Part B.
ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.
iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A

(25 Marks)

1.a)	Define Machine learning.	[2]
b)	Write about inductive bias.	[3]
c)	Define hypothesis.	[2]
d)	Write about sampling theory.	[3]
e)	Define Eager learning.	[2]
f)	What is lazy Learning?	[3]
g)	Define term Genetic.	[2]
h)	Discuss Dynamic Programming.	[3]
i)	Define explanation-based learning.	[2]
j)	Write about control knowledge.	[3]

PART – B

(50 Marks)

2. Which disciplines have their influence on machine learning? Explain with examples.
[10]

OR

3.a) Explain the two uses of features in machine learning.
b) Discuss about decision tree representation, in detail.   [5+5]

4. Explain in detail about Kernel Perceptron.   [10]
OR
5. Discuss in detail about representation of Neural Networks.   [10]

6. Describe briefly about k-nearest neighbor algorithm.   [10]
OR
7.a) Discuss about Bayesian belief networks.
b) Explain about Bayes theorem.   [5+5]

8. Discuss Briefly about Genetic algorithms in detail.   [10]
OR
9.a) Discuss about Q–learning, in detail.
b) Explain temporal difference learning in detail.   [5+5]

10.   Explain about PROLOG-EBG, in detail.   [10]

OR

11.a)   Discuss about augment search operators.

   b)   Explain about search control knowledge in detail.   [5+5]

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