R09

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.Tech I Semester Examinations March/April-2011
MACHINE LEARNING
(IMAGE PROCESSING)

Time: 3hours   Max.Marks:60

Answer any five questions
All questions carry equal marks
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1. a) What is Machine learning? Explain different perspectives and issues in machine learning.
   b) What are the concepts of learning as search?   [12]

2. a) Explain basic decision tree algorithm.
   b) Explain how hypothesis space search is carried in decision tree learning.   [12]

3. a) Explain Back propagation algorithm. Mention its limitations.
   b) Discuss a general approach for deriving confidence intervals.   [12]

4. a) Discuss maximum likelihood hypothesis for predicting probabilities in Bayesian learning.
   b) Explain Gibs algorithm.   [12]

5. a) Explain Hypothesis space search in genetic algorithms.
   b) How Genetic Algorithm can be parallelized?   [12]

6. a) Discuss Explanation-Based learning of search control knowledge.
   b) How learning can be carried with perfect domain theories?   [12]

7. a) Explain Inductive analytical approaches to learning.
   b) Explain Lazy and Eager learning.   [12]

8.   Write short notes on the following:
      a)   Temporal difference learning.
      b)   Dynamic programming.   [12]

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