R09

Code No: D2509
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.Tech II - Semester Examinations, March/April 2011
INTRODUCTION TO NEURAL NETWORKS
(SOFTWARE ENGINEERING)

Time: 3hours **Max. Marks: 60**

Answer any five questions
All questions carry equal marks
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1. a) What is a neural Net work? Explain the features inherited by artificial
    neural network from biology Neural Network.
    b) Describe various Neural Network architectures. [12]

2. a) Explain how do you compare AI machine with neural networks.
    b) Describe error – correction learning through signal flow graph. [12]

3. a) Differentiate short term memory and long term memory.
    b) Describe characteristics and models of associative memory using diagrams. [12]

4. a) What is linear seperability ? Explain how do you solve linear seperable problems
    by giving example.
    b) Explain the operation of the Baye's classifier for the Gaussian environment. [12]

5. Explain the back propagation algorithms and derive the expressions for weight update
   relations. [12]

6. With the help of figures explain the two basic feature mapping models and compare them.
   [12]

7.a) Briefly explain learning vector quantization and its algorithm.
   b) What is adaptive pattern classification? Explain it through an experiment. [12]

8. Write short notes on
   a) Neural dynamical models.
   b) Hopfield models [12]

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