

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]
