

Code: R7411510

R7

IV B.Tech I Semester (R07) Supplementary Examinations, May 2012

NEURAL NETWORKS

(Common to Computer Science & Systems Engineering and Electronics & Computer Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

1. (a) Define activation functions, bias, threshold and learning in context to artificial neural network.
(b) Explain models of artificial neural networks: Feed forward and feedback networks.
2. (a) Discuss about memory based learning in detail.
(b) Explain Hebbian learning rule.
3. Explain single layer perceptron network architecture and its algorithm.
4. Explain the back propagation XOR problem.
5. (a) Explain supervised learning.
(b) Explain network pruning techniques.
6. (a) Explain learning vector quantization architecture and its algorithm.
(b) Write briefly about properties of feature map.
7. (a) Explain neurodynamical models.
(b) Write about stability of equilibrium states.
8. Explain in detail about discrete Hopfield net architecture and its training algorithm.
