

24489

B. Tech. 7th Semester (CSE) F. Scheme Examination,

December-2017

NEURAL NETWORKS

Paper—CSE-407-F

Time allowed : 3 hours]

[Maximum marks : 100

Note : Question 1 is compulsory. and the students have to attempt one question from each of four section.

1. (a) What is Hebbian Learning Rule ? $4 \times 5 = 20$
(b) What is Multi-Layer Feed Forward Networks ?
(c) What is Recurrent Auto Associative Memory ?
(d) What is clustering ?

Section—A

2. (a) Differentiate Biological Neurons and Artificial Neural Networks. 10
(b) Explain different models of ANNs. 10
3. What is ANN ? What are the different Learning Rules used in ANN ? Explain in detail. 20

Section—B

- 4 (a) Explain Single Layer Continuous Preceptron Network. 10

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- (b) In which manner multilayer Perceptron Models differ from Single Layer Perceptron Model ? Explain the reasons for emergence of Multilayer Perceptron Model. 10

5. Write short note on :

- (a) Delta Learning Rule. 10
(b) Error Back-Propagation Training. 10

Section-C

6. (a) Explain Hopfield Network in detail. 10
(b) What is Associative Memory ? Explain its various type in detail with suitable example. 10
7. Explain the Architecture, Association, Encoding and Decoding and Stability consideration for Bidirectional Associative Memory in detail. 20

Section-D

8. What is Self Organizing Network ? Explain UN supervised learning of clusters in detail. 20
9. (a) What is Learning ? Explain winner-Take-All Learning. 10
(b) Write short note on Recall Mode for self organizing network. 10