

I.D. No. 24489

B. Tech. 7th Semester F-Scheme Computer

Science Engg.-VIII

Examination, May-2014

NEURAL NETWORKS

Paper-CSE-407-F

Time allowed : 3 hours]

[Maximum marks : 100

Note : Question No. 1 is compulsory. Attempt five questions in total selecting one question from each section.

1. (a) Correction Learning Rule 4×5=20
- (b) Applications of ANN
- (c) Learning Factors
- (d) Clustering

Section-A

2. Explain the various models of artificial neural networks with their corresponding advantages and disadvantages. 20
3. (a) Explain Widrow-Hoff learning rule 10
- (a) Compare and contrast Biological neurons with ANN. 10

Section-B

4. (a) Explain the single layer continuous perceptron training algorithm for linearly separable classification. 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) Error back-propagation Training
(b) Delta learning rule 20

Section-C

6. Explain the various Architectures of Hopfield network in detail. How learning process occurs in Hopfield network? 20
7. (a) What is associative memory ? Explain its various types in detail with suitable Example. 10
(b) Explain storage of retrieval algorithm for associative memory. 10

Section-D

8. Explain in detail unsupervised learning of clusters. 20
9. Write short note on :
(i) Separation Limitation for unsupervised learning
(ii) Winner-take-all learning. 20