

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

Write short note on :

- (a) Error back-propagation Training
(b) Delta learning rule 20

Section-C

Explain the various Architectures of Hopfield network in detail. How learning process occurs in Hopfield network ? 20

- (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

Explain in detail unsupervised learning of clusters. 20

Write short note on :

- (i) Separation Limitation for unsupervised learning
(ii) Winner-take-all learning. 20