

(DEE 424 B)

B. Tech. DEGREE EXAMINATION, MAY - 2015

(Examination at the end of Final Year)

ELECTRICALS & ELECTRONICS ENGINEERING

Paper - IV : Artificial Neural Networks

Time : 3 Hours

Maximum Marks : 75

Answer question No. 1 compulsory

(15)

Answer ONE question from each unit

(4 x 15 = 60)

- 1) a) What is memory based learning?
- b) Write any three differences between Biological & artificial neural networks.
- c) Write short notes on Associative memories.
- d) What are radial basis networks?
- e) What are the properties of feature map.

Unit - I

- 2) a) What are artificial neural networks? What are their characteristics?
- b) Explain the historical development of Artificial neural networks.
- OR
- a) What are different types of Hebbian learning? Explain basic Hebbian learning?
- b) Distinguish between supervised and unsupervised training.

Unit - II

- 3) Write short notes on the following :
- a) Hessian matrix
- b) Cross validation
- c) Feature detection

OR

State and explain the XOR problem? Also explain how to overcome it.

Unit – III

4) Compare radial basis network with multilayer perceptron. Give suitable example.

OR

- a) Write about generalized radial basis networks.
- b) Write approximation properties of radial basis function network.

Unit – IV

5) What is the difference between pattern recognition & classification? How artificial neural network is applied on both?

OR

- a) Explain the SOM algorithm.
- b) Explain about learning vector Quantization.

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