



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE

SECOND SEMESTER – APRIL 2015

CS 2956 - NEURAL NETWORKS

Date : 25/04/2015
Time : 01:00-04:00

Dept. No.

Max. : 100 Marks

SECTION-A

ANSWER ALL THE QUESTIONS:

(10x2=20)

1. Define connection weight.
2. What do you mean by excitation in Neural Network?
3. Differentiate supervised from unsupervised Learning.
4. What is Network Pruning?
5. Define Incremental Learning.
6. State Kolmogorove theorem.
7. Define Discovery in Neural Network.
8. What is Divide and Conquer technique?
9. Define spatiotemporal data.
10. What is Temporal Summation?

SECTION-B

ANSWER ALL THE QUESTIONS:

(5x8=40)

11. a) Write down the Neural Network Learning Algorithm and Explain.
(OR)
b) Explain the single layer perceptron algorithm.
12. a) Explain the ID3 algorithm in detail.
(OR)
b) Explain the concept of Reinforcement Learning.
13. a) Give an account on system Identification and control.
(OR)
b) Explain the cascade correlation Learning.
14. a) Explain the mixed unsupervised and supervised approaches.
(OR)
b) Explain about Genetic Search.
15. a) Explain the spatiotemporal networks.
(OR)
b) Explain the concept of Feature extraction and problem abstraction.

SECTION-C

ANSWER ANY TWO:

(2x20=40)

16. i) Discuss in detail about Hop field Nets with example. (10)
ii) Explain in detail about Radial Basis function Networks. (10)
17. i) Discuss in detail about Probabilistic Neural Networks. (10)
ii) Explain in detail about conceptual clustering. (10)
18. i) Describe the counter propagation Network in detail. (10)
ii) Explain about Knowledge based Neural Network Architecture. (10)
