LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – **COMPUTER SCIENCE**

SECONDSEMESTER – APRIL 2018

CS 2956- NEURAL NETWORKS

Date: 27-04-2018 Dept. No. Max. : 100 Marks
Time: 01:00-04:00

SECTION-A

ANSWER ALL THE QUESTIONS: (10*2=20)

1. Define connection weight.
2. What do you mean by excitation in Neural Network?
3. Define Learning.
4. What is Generalization?
5. Define Incremental Learning.
6. State Bayesian theorem.
7. What is parallel model?
8. What is Divide and Conquer technique?
9. Define spatiotemporal data.
10. What is Temporal Summation?

SECTION-B

ANSWER ALL THE QUESTIONS: **(5*8=40)**

11. a) Explain the different types of interconnection scheme in Neural Network.
    (OR)
    b) Write down the Neural Network Learning Algorithm and Explain.

12. a) Explain about the supervised and unsupervised learning.
    (OR)
    b) Explain the ID3 algorithm in detail.

13. a) Write the COBWEB algorithm and explain.
    (OR)
    b) Explain about the cascade correlation Learning.
14. a) Explain the fundamental principles of Incremental learning.
    (OR)
    b) Explain the Temporal Model.
15. a) Explain the Time delay Neural Networks.
    (OR)
    b) Explain the concept of Feature extraction and problem abstraction.

SECTION-C

ANSWER ANY TWO: **(2X20=40)**

16. i) Explain about single layer perceptron algorithm (10)

    ii) Explain in detail about back propagation algorithm with example. (10)

17. i) Discuss in detail about Probabilistic Neural Networks. (10)i

    ii) Explain about conceptual clustering. (10)

18. i) Describe the counter propagation Network in detail.(10)

    ii) Explain the spatiotemporal networks. (10)

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