

G 1658

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Reg. No.....

Name.....



B.TECH. DEGREE EXAMINATION, MAY 2015

Eighth Semester

Branch : Applied Electronics and Instrumentation Engineering

AI 010 804 L01—NEURAL NETWORKS (Elective III) (AI)

(New Scheme—2010 Admission onwards)

[Regular/Supplementary]

Time : Three Hours

Maximum : 100 Marks

Part A

*Answer all questions.
Each question carries 3 marks.*

1. Write short notes on XOR problem.
2. What is single layer ANNs ?
3. Define associative memory.
4. Briefly describe competitive networks.
5. What are the applications to travelling salesman problem ?

(5 × 3 = 15 marks)

Part B

*Answer all questions.
Each question carries 5 marks.*

6. Write short notes on adaline and madaline network.
7. Explain in detail about local and global minima.
8. With suitable diagram explain the Kosko's discrete BAM.
9. Explain in detail about full CPN.
10. Briefly explain Simulated annealing,

(5 × 5 = 25 marks)

Part C

*Answer all questions.
Each question carries 12 marks.*

11. Draw and explain the model of an artificial neuron with suitable diagram.

Or

12. Give a description about the training and learning method with suitable diagram.

Turn over

13. Discuss in detail about the back propagation network architecture and algorithm.

Or

14. With the help of neat diagram explain the steepest descent method.

15. Write in detail about hetero associative memory with neat diagram.

Or

16. Explain recurrent networks and discrete Hopfield network.

17. Comment on the Kohonen's self organizing maps with suitable diagram.

Or

18. Illustrate LVQ architecture and algorithm with neat block diagram.

19. Briefly describe Boltzmann's machine with example.

Or

20. Explain the neural network hardware.



(5 × 12 = 60 marks)