B. E. 4/4 (Mech./Prod.) I-Semester (New) (Main) Examination, November / December 2009

Subject : Neural Netowrks (Elective – I)

Max. Marks: 75 Time: 3 Hours

Note: Answer all questions of Part-A and any Five questions from Part-B.

Part - A (25 Marks)

1. What is Rosenblatts perception model?

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- What are the basic learning laws? 2.
- What is hybrid intelligence? 3.
- What is the criterion used for neural network learning? 4.
- What are the limitations of Boltzman learning? 5.
- Describe the properties of a network. 6.
- Compare and contrast the biological neuron and artificial neuron. 7.
- Describe the weight initialization. 8.
- 9. What are the applications of neural networks?
- What do you mean by AI learning? 10.

Part - B (50 Marks)

- Discuss single layer and multi layer perceptions. 11.
- Compare the Hopfield network algorithm with boltzman's machine algorithm. 12.
- Explain briefly the classification of different learning methods. 13.
- What is meant by associative memories? Explain Bi-directional associative 14. memories in detail.
- Discuss the differences between supervised and unsupervised learning. 15.
- Explain different methods of data representation. 16.
- Write a short note on the following: 17.
 - a) Sigmoid functions

b) Neural information processing

c) Boltzman's algorithm

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