BICSE-003

00251

B.Tech - CSE

Term-End Examination

December, 2013

BICSE-003 : NEURAL NETWORK

Time : 3 hours   *Maximum Marks : 70*

Note :   *Answer **any seven** questions.*

      *All questions carry **equal** marks.*

1.   (a)   What is a neural network ? State the use of   **3**
         the learning.
     (b)   What are the different classes of network   **7**
         architectures ?

2.   (a)   Define perceptron. Explain with examples.   **5**
     (b)   Explain the perceptron training algorithm   **5**
         with some example.

3.   Define Madalines. Write down the steps for   **10**
     Madaline Rule 1 training algorithm.

4.   Write short notes on following :
     (a)   Cornor isolation problem   **5**
     (b)   Marchand's algorithm   **5**

5.   (a)   Draw the diagram for two-class problem   **5**
         with a single cluster and explain.
     (b)   Draw the neat diagram for PI-sigma   **5**
         network with 3 inputs and compute sums
         and productions.

6. (a) Calculate the Hamming distances between stored vectors and input vectors using diagram. **5**

   (b) Write the simple competitive learning algorithm. Explain with diagrams. **5**

7. (a) Explain Forward-only counter propagation neural network with architecture. **5**

   (b) Write down the algorithm for forward-only counter propagation. **5**

8. (a) What is a multilayer feed forward neural network ? Explain with a network diagrams. **5**

   (b) Write down the algorithm steps for Boltzemann machine learning algorithm. **5**

9. Explain the Travelling salesman problems using Hopfied neural network models. **10**

10. (a) Write a short note on Fuzzy logic. **5**

    (b) What is neuro fuzzy systems and how it is different from fuzzy logic ? **5**

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