00763

B.Tech - CSE

Term-End Examination

December, 2012

BICSE-003 : NEURAL NETWORK

Time : 3 hours   *Maximum Marks : 70*

Note :   *Attempt **any seven** questions.*
        *Assume the missing data, if **any**.*

1. (a)   How does a single neuron work ?   **5**

    (b)   What can neural networks be used for ?   **5**

2. How can neurons and neural networks be made   **10**
    to learn ? Explain in detail.

3. Write short notes on the followings :   **5x2=10**

    (a)   Linear separability.

    (b)   Perceptron.

4. What is the advantage obtained by modifying the   **10**
    Adaline training algorithm to include the heuristic
    of the pocket algorithm (storing the best recent
    vector) ? Explain in detail, if any.

5. How may Marchand's algorithm be modified to work for multiclass problems ? **10**

6. Describe the radial basis function (RBF). Also show the importance of RBF in neural networks. **10**

7. Justify the statement show that the methods such as simulated annealing and evolutionary algorithms often obtain better solutions than gradient descent or hill-climbing. **10**

8. Give a detailed architecture of Adaptive Neuro-Fuzzy Inference Systems (ANFIS). Also discuss about hybrid learning algorithm. **10**

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