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BICSE-003

B.Tech. – VIEP – COMPUTER SCIENCE AND ENGINEERING (BTCSVI)

Term-End Examination

00106 **June, 2016**

BICSE-003 : NEURAL NETWORK

Time : 3 hours *Maximum Marks : 70*

Note : *Answer any **seven** questions. All questions carry equal marks. Assume the missing data, if any.*

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

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

2. (a) What is a neural network ? State the use of learning. *5*

(b) What are the different classes of network architectures ? *5*

3. What is supervised learning and unsupervised learning ? Differentiate both of them. *10*

4. (a) Describe the major components of Adaptive Neuro-Fuzzy Inference Systems (ANFIS). 5

(b) How is Fuzzy logic useful in neural networking ? 5

5. (a) Define Pocket algorithm. Write down the steps of Pocket algorithm. 5

(b) Write down the steps for Back Propagation algorithm. 5

6. What are the applications of neural networks ? Explain with the help of any examples. 10

7. (a) Explain the architecture of the full counter propagation neural networks. 5

(b) Briefly write the points for adaptive resource theory. 5

8. Explain the Travelling Salesman problems using Hopfield neural network models. 10

9. (a) What is gradient descent and how is it explained using Hopfield network models ? 5

(b) Write the algorithm steps for Simulated Annealing. 5

10. Write short notes on any ***two*** of the following : *2×5=10*

(a) Corner Isolation Problem

(b) Marchand's Algorithm

(c) Madalines