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BICSE-003

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

Term-End Examination

00655

June, 2019

BICSE-003 : NEURAL NETWORK

Time : 3 hours *Maximum Marks : 70*

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

1. What is Neural Network ? Explain the different classes of network architecture with the help of suitable diagram. *10*

2. Describe Back Propagation Algorithm with the help of an example. *10*

3. What are Hopfield networks ? Explain discrete Hopfield network in detail. *10*

4. What is simulated annealing ? Briefly explain move generation and move acceptance. *10*

5. What are the applications of neural network ? Explain with any five examples. *10*

6. (a) How does Fuzzy theory differ from Probability theory ?

   (b) Describe the major components of an Adaptive Neuro-Fuzzy Inference System. *5+5*

7. Explain how an unsupervised learning mechanism can be adopted to solve supervised learning tasks with the help of Linear Vector Quantization (LVQ) algorithm. *10*

8. What do you mean by Knowledge Engineering ? Explain various stages of Knowledge Acquisition. *10*

9. Discuss Hebb's Rule in context of supervised and unsupervised learning. *10*

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

    (a) Polynomial Networks

    (b) Associative Memory Networks

    (c) Perceptron Training Algorithm
