(b) Discuss different options for learning using Hopfield's model.

6. (a) Explain the use of Adaptive Resonance Theory-I (ART-1) in detail.

(b) How K-means clustering performs learning ? Explain.

7. Discuss the applications of Back-Propagation in detail.

8. (a) How is NETtalk related to multilayer-perceptron ? Explain.

(b) Demonstrate the concept of pattern recognition by taking suitable examples.

M.Sc. Information Technology 4th Semester

ARTIFICIAL NEURAL NETWORK

Paper : MIT-403

Time Allowed—2 Hours]   [Maximum Marks—100

Note :— There are **Eight** questions of equal marks. Candidates are required to attempt any **Four** questions.

1. (a) What is meant by architecture of artificial neural network ? Explain.

(b) What are basic learning rules ? Explain by taking examples.

2. (a) Discuss the evolution of artificial neural network in detail.

(b) Differentiate supervised and unsupervised learning.

3. (a) Explain the concept of Perceptron Model by taking an example.

(b) What are linear machines ? Explain linear machine learning algorithm.

4. (a) Explain the pocket algorithm without retches.

(b) Demonstrate the concept of Kessler's construction.

5. (a) How Anderson's BSB model is used as learning model ? Explain.