

Roll No .....

**IT-8002 (CBGS)**

**B.E. VIII Semester**

Examination, May 2019

**Choice Based Grading System (CBGS)**

**Soft Computing**

*Time : Three Hours*

*Maximum Marks : 70*

- Note:** i) Attempt any five questions.  
ii) All questions carry equal marks.

1. a) Explain Neural network architecture.  
b) Discuss Hebbian, competitive and supervised learning.
2. a) Discuss in detail learning algorithm of back-propagation network.  
b) Write the application of neural network in image compression.
3. a) Implement and logical function using perceptrons.  
b) With graphical representation explain the activation function used in Neural network.
4. a) Discuss the architecture and flow chart of Kohonen network.  
b) Define ART. In which application ART is suitable.
5. a) List and explain various operations that can be performed in fuzzy relations.  
b) With the help of necessary block diagram, compare mamdani and sugeno fuzzy inference system.

6. a) Illustrate the different steps in genetic-neuro hybrid system with the help of a neat block diagram.  
b) Distinguish between the process of mining and learning in genetic fuzzy rule based system.
7. What is TSP? How it is solved by genetic algorithm?
8. Write short notes on
  - i) Operators of GA
  - ii) Job shop scheduling problem

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