2022

Full Marks : 80

Time : 3 Hours

Answer ALL questions .

All questions carry equal marks.

SOFT COMPUTING

1. a) Define De-Fuzzification ? Differentiate between centroid method and center of largest area method.

   b) What do you mean by Neural Networks ? Explain its application and advantages.

OR

   c) Discuss in detail the operations and properties of fuzzy sets.

   d) Write short notes on :

      i) Fuzzy logic

      ii) Crisp Sets

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2. a) Differentiate between Mamdani method and Takagi system.

b) Explain perceptron Network ? Write down its use with example.

Or

c) What is ADALINE ? Explain with an example.

d) What is Multilayer Perceptron ? How does it works ?

3. a) Discuss Kohonen's self organising map with an example.

b) Explain any 03 layer of adaptive neuro-fuzzy inference system (ANFIS)

OR

c) What is learning vector quantization ? Write down its key features through a diagram.

d) What is Simulated Annealing Neural Network ? Write down its principles.

4. a) Define Fitness Function ? Write down its components.

b) What do you mean by cross over ? Explain single point, two point and ordered cross over.

OR

c) Differentiate between GA and Traditional Optimisations Methods.

d) Write short notes on :

i) Encoding

ii) Reproduction

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