Total No. of Questions : 8] *[Total No. of Printed Pages : 2*

Roll No .....

MCA-504(C)

M.C.A. V Semester

Examination, December 2020

Soft Computing

(Elective - II)

Time : Three Hours

Maximum Marks : 70

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

1. a) With the help of suitable examples explain and differentiate supervised and unsupervised learning.
   b) Explain the architecture of back-propagation neural network.

2. a) What are the features of Kohonen self organizing maps?
   b) Differentiate the followings
      i) Hard computing and soft computing
      ii) Biological neuron and artificial neuron

3. a) Explain the architecture of BAM Network. Discuss about discrete and continuous Bidirectional associative memory.
   b) Give an overview of Hopfield Network with its applications.

4. a) Explain the architecture of CPN counter propagation network.
   b) What do you mean by stochastic neural networks? Explain in brief.

5. Write in brief about the followings
   a) Fuzzy inference system
   b) Fuzzy decision making

6. a) Explain the application of fuzzy logic systems to image processing application.
   b) Explain various types of crossover and mutation techniques.

7. a) Compare the Roulette wheel selection with other selection methods of GA.
   b) What is rough set theory? Discuss some hybrid approaches involving rough sets.

8. Write short notes on any two of the followings
   i) Genetic programming
   ii) Hybrid fuzzy GA system
   iii) Charles Darwin's theory of evolution

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