

M.C.A. - I (Two Years Programme) (New CBCS Pattern) Semester - II  
**PSMCAT202 : Paper-II - Soft Computing Techniques**

P. Pages : 2

Time : Three Hours



**GUG/S/23/13643**

Max. Marks : 80

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- Notes :
1. All questions are compulsory and carry equal marks.
  2. Draw neat & labelled diagram.
  3. Avoid vague answers and write specific answers relevant to the questions.

1. a) Explain Artificial intelligence in detail. 8
- b) Write down the difference between Breath first search and depth first search technique used. 8

**OR**

- c) Explain A0\* algorithm. 8
- d) Describe the types of control strategies. 8
2. a) What is RBF NN? Explain the feed forward neural network. 8
- b) Define Neural Networks. Explain its types. 8

**OR**

- c) Explain the difference between ANN and human brain. 8
- d) How do Neural Networks get optimal weights and Bias values. 8
3. a) What are the types of logic sets? 8
- b) Write down the difference between crisp relation and fuzzy relations. 8

**OR**

- c) What are the applications of fuzzy logic in decision making? 8
- d) What are the types of fuzzy propositions available? 8
4. a) What is the use of genetic algorithm in soft computing? 8
- b) Differentiate genetic algorithm Vs Traditional algorithm. 8

**OR**

- c) Explain the working principle of Genetic algorithms. 8
- d) What are the basic operators of genetic algorithm? Explain the operational 10 m procedure of GA. 8

**5.** Attempt all the questions.

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|---|----------|
| a) What is Knowledge issues?                | <b>4</b> |
| b) How can Neural Networks be Unsupervised. | <b>4</b> |
| c) What is Fuzzy Theorem?                   | <b>4</b> |
| d) Explain about mutation operator.         | <b>4</b> |

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