

Total No. of Questions : 8]

SEAT No. :

P3128

[5154]-694

[Total No. of Pages : 2

B.E. (Information Technology)

SOFT COMPUTING

(2012 Pattern) (Elective - I) (Semester - I) (414456A)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Figures to the right indicate full marks.*
- 2) Assume suitable data, if necessary.*

- Q1)** a) What is soft computing? Explain its components. [6]
- b) What are performance issues in Error Back Propagation Algorithm. [8]
- c) Explain resonance in Adaptive - Resonance - Theory networks with diagram. [6]

OR

- Q2)** a) Comment on the nature of problems solved with soft computing. [6]
- b) What are the weaknesses of EBP algorithm? [8]
- c) Explain how Neural networks can be used for clustering task. [6]
- Q3)** a) What is meant by fuzzy logic? Illustrate it with examples. [8]
- b) Explain the Alpha-cut method for discrete fuzzy sets to perform arithmetic operations: [8]
- i) Addition
 - ii) Division

OR

- Q4)** a) List out the characteristics features of fuzzy systems. [8]
- b) List and explain following fuzzy set operations with example. [8]
- i) Normal fuzzy set
 - ii) Product of fuzzy set

P.T.O.

- Q5) a)** Compare: [8]
i) evolutionary strategy and
ii) evolutionary programming
b) Explain the basic operations in Genetic Algorithms [8]

OR

- Q6) a)** Explain how Genetic Algorithms are different from Evolutionary Strategy. [8]
b) With the neat flowchart explain operation of evolutionary programming. [8]

- Q7) a)** Describe an application how soft computing can be used in semantic web. [9]
b) Describe applications of Evolutionary Computing in image processing. [9]

OR

- Q8) a)** Describe an application how soft computing can be used in information retrieval. [9]
b) Describe an applications of fuzzy for character recognitions. [9]

