

Total No. of Questions : 8]

SEAT No. :

P2351

[Total No. of Pages : 2

[5254]-684
B.E. (I.T.)
SOFT COMPUTING
(2012 Pattern) (Semester - I) (Elective - I)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Figure to the right indicate full marks.*
- 2) Assume Suitable data if necessary.*

- Q1)** a) List and characterize the constituents of soft computing. [6]
b) Explain the types of pattern recognition tasks. [6]
c) What is Boltzman machine? With neat sketch explain its architecture.[8]

OR

- Q2)** a) Give an example of intelligent system and elaborate it. [6]
b) Explain the limitations of perceptron as a classifier. [6]
c) What is SOM? Explain training algorithm for SOM. [8]

- Q3)** a) Explain the merits and demerits of fuzzy logic. [8]
b) Explain the alpha-cut method for discrete fuzzy sets to perform arithmetic operations. [8]
i) Subtraction.
ii) Multiplication.

OR

- Q4)** a) "Behavior of fuzzy logic is deterministic"? Justify. [8]
b) What are fuzzy relations? Explain following operation on fuzzy relations. [8]
i) Intersection.
ii) Containment.

P.T.O.

- Q5)** a) Is it advisable to apply genetic algorithm for all kinds of optimization problems? Justify. [10]
b) What is evolutionary programming? [6]

OR

- Q6)** a) What are types of crossover and mutation techniques. [10]
b) What are limitations of genetic algorithms. [6]
- Q7)** a) Describe an application how soft computing can be used in mobile ad-hoc networks. [9]
b) Mention the application area of fuzzy logic. [9]

OR

- Q8)** a) Describe an application how soft computing can be used in software engineering. [9]
b) Mention application area of genetic algorithms. [9]

