

6. Write short notes on the following : $5 \times 3 = 15$

- (a) Constituents of Soft Computing
- (b) Applications of Genetic Algorithm
- (c) Defuzzification Techniques.

7. Explain the working of a fuzzy Controller. Design a system that models the tip value to be given after a Lunch depending on the quality of food served and service offered. Consider the rating of food and service on a scale of 1 to 10. 15

Roll No.

Total Pages : 04

003603

May 2024

B.Tech. (CE/CE(HINDI)/IT/CSE(AIML))

(Sixth Semester)

Soft Computing (PEC-CSD-602)

Time : 3 Hours]

[Maximum Marks : 75

Note : It is compulsory to answer all the questions (1.5 marks each) of Part A in short. Answer any *four* questions from Part B in detail. Different sub-parts of a question are to be attempted adjacent to each other.

Part A

1. (a) Plot a fuzzy membership function for "temperature of the day" using your own definitions for its discourse. 1.5
- (b) What are the uses of activation function in neural Networks ? 1.5
- (c) State the Law of excluded middle and the Law of contradiction for fuzzy sets. 1.5
- (d) Bring the contrast between biological neuron and an artificial neuron. 1.5

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