PSG COLLEGE OF ARTS & SCIENCE

(AUTONOMOUS)

BCA DEGREE EXAMINATION MAY 2024

(Sixth Semester)

Branch - COMPUTER APPLICATION

SOFT COMPUTING

Maximum: 50 Marks Time: Three Hours SECTION-A (5 Marks) Answer ALL questions ALL questions carry EQUAL marks $(5 \times 1 = 5)$ 1 Which of the following is associated with fuzzy logic? ii) Two-valued logic i) Crisp set logic iv) Many-valued logic iii) Binary set logic 2 ANN is the collection of artificial ____ ii) Synapses i) Networks iv) Neurons iii) Weights 3 In which type of networks training is completely avoided? ii) PNN i) GRNN iv) None of the mentioned iii) GRNN and PNN If the weight matrix stores multiple associations among several patterns, then network becomes? i) Auto Associative memory ii) Hetero associative memory iii) Multidirectional Associative memory iv) temporal associative memory 5 How many types of random variables are there in Fuzzy logic? iv) 4 iii) 1 ii)3 i)2

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry **EQUAL** Marks $(5 \times 3 = 15)$

6 a Explain about fuzzy logic architecture.

OR

- b Compare advantage and disadvantage of soft computing.
- 7 a Classify basic of Neural Network.

OR

- b Prepare the types of Perceptron.
- a Explain about the RBF Network Architecture.

OR

- b Show the different types of artificial neural network.
- a Explain the application of Associative Memory.

OR

- b Describe the pitfalls of associative memory.
- 10 a Discuss about Genetic Algorithm Parameters.

OR

b Choose the pros and cons of GA.

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SECTION -C (30 Marks)

Answer ALL questions ALL questions carry EQUAL Marks

 $(5 \times 6 = 30)$

11 a What are the equal sets? How it differ from unequal sets?.

OR

- b Discuss about triangular norms and its classification.
- 12 a Analyze the application of Neural Network.

OR

- b Discuss about ANN Model.
- 13 a Compare a categorization of Backpropagation Network.

OR

- b Discover the variations of Backpropagation?
- 14 a Explain the types of Associative Memory.

OR

- b Discuss about the Auto associative and Hetero associative Memory.
- 15 a Explain the Genetic Algorithm and phases.

OR

b Select the Particle Swarm Optimization.

Z-Z-Z

END