

THE AMERICAN COLLEGE, MADURAI

(An Autonomous Institution Affiliated to Madurai Kamaraj University) Re-accredited (2nd Cycle) by NAAC with Grade "A", CGPA – 3.46 on a 4-point scale

Backlog Arrear Examination, March 2021

Course : MCA 0413 Course : Soft Computing Time : 3 Hrs Max : 75 marks

$\mathbf{PART} - \mathbf{A}$

Answer any FIVE of the following:

5 X 15 = 75 marks

- 1. Describe various operations on Fuzzy set with necessary examples.
- 2. What do you mean by Fuzzy decision making? Explain any one Fuzzy logic based control system.
- 3a. Describe the features of Soft Computing.
 - b. Explain the differences between Crisp set and Fuzzy set with suitable example.
- 4. a) Explain the characteristics of Artificial neural networks. (10)b) Give notes on the applications of ANN. (5)
- 5. Write and explain the complete algorithm of Back propagation technique in Artificial Neural Networks.
- 6. Describe the Network Structure and Normal Operation of Counter propagation networks.
- 7. Discuss the architecture of ART with necessary theory.