

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
M.Tech. Summer 2019 - 20 Examination

Semester: 2**Subject Code: 203207187****Subject Name: Program Elective -4 - AI Techniques****Date: 13/05/2019****Time: 10:30am To 01:00pm****Total Marks: 60****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q. 1 A) Compare Biological neuron and artificial neuron. **(05)**

B) What is Neuron network architecture? **(05)**

C) Write a note on Supervised Learning. **(05)**

Q. 2 Answer the following question (Attempt any three) (Each Five mark) **(15)**

A) Write Vector and matrix Notation in case of neural network.

B) Explain two activation functions.

C) Draw structure and explain Feed forward Neural network.

D) Calculate error calculation in case of Hidden layer Neuron.

Q. 3 A) Explain in detail fuzzy logic with one electrical application. **(07)**

B) Explain in detail fuzzy logic Rule Base. **(08)**

OR

B) Draw Functional block of fuzzy logic and architecture of fuzzy logic control. **(08)**

Q.4 A) What is Defuzzification? Explain Mamdani method. **(07)**

OR

A) Write about binary representation in GA. **(07)**

B) Write Genetic Algorithm operators and explain any one of them. **(08)**