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Reg. No. | | | | | | | | | |

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY::PUTTUR
(AUTONOMOUS)
M.Tech I Year II Semester Regular Examinations June 2019
SOFT COMPUTING
(Computer Science and Engineering)

Time: 3 hours   Max. Marks:60

(Answer all Five Units 5×12=60 Marks)

UNIT I

1 **a** Discuss briefly the applications of artificial neural networks   6M

   b What are the learning strategies for artificial neural networks?   6M

OR

2 **a** Outline the basic models of artificial neural networks.   6M

   b Analyze the 3-input NAND gate, NOR gate using the Mc Culloch – Pitts   6M
neuron model

UNIT II

3 **a** Briefly discuss about back propagation learning. In details.   6M

   b Explain about the training algorithms for pattern association.   6M

OR

4 **a** Write a short notes on hetero-associate network.   6M

   b List the limitations of "Perceptron" model.   6M

UNIT III

5 **a** Illustrate the various membership functions of fuzzy logic systems in detail.   6M

   b Discuss the properties of fuzzy sets.   6M

OR

6 **a** Explain fuzzy composition operations.   6M

   b Compare and contrast the crisp and fuzzy implication rules.   6M

UNIT IV

7 Illustrate the concept of air conditioner control using fuzzy logic.   12M

OR

8 **a** Write short notes on Defuzzification.   6M

   b Discuss the basic components of a fuzzy logic system.   6M

UNIT V

9 Explain the various operators of GA and also GA evaluation procedure.   12M

OR

10 Briefly discuss the need of mutation operator in GA and its operation.   12M

END