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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)**

**M.Tech I Year I Semester Regular & Supplementary Examinations February 2018
NEURAL NETWORKS AND FUZZY LOGIC**

(Power Electronics)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 X 12 =60 Marks)

UNIT-I

- 1 a Explain about the Mc Culloch-Pitts neuron model 6M
b Explain about artificial neuron 6M

OR

- 2 a Describe the applications of ANN. 6M
b What are the learning strategies for artificial neural networks? 6M

UNIT-II

- 3 a Explain about the back propagation network. 6M
b Explain the architectural details and algorithm of "ADALINE" model 6M

OR

- 4 Explain computations in multi layer feed forward networks 12M

UNIT-III

- 5 Explain about the training algorithms for pattern association. 12M

OR

- 6 a Write short notes on Hopfield networks. 6M
b Explain about the bidirectional associative memory. 6M

UNIT-IV

- 7 a Explain about the operations of fuzzy sets. 6M
b Explain about the fuzzy relations 6M

OR

- 8 Explain decision making using fuzzy composition operations. 12M

UNIT-V

- 9 What is fuzzification? Explain about the defuzzification to crisp sets

OR

- 10 a Explain about the fuzzy logic based unit commitment 6M
b Explain about the load flow studies. 6M

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