SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech. IV Year I Semester Regular Examinations February-2024
NEURAL NETWORKS AND FUZZY LOGIC
(Electrical & Electronics Engineering)

Time: 3 Hours　　　　　　　　　　　　　　　　　　　　　　　**Max. Marks: 60**

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

UNIT-I

1	a	Discuss the functioning of biological neuron.	CO1	L2	6M
	b	Explain characteristics of Artificial neural network.	CO1	L2	6M

OR

2	a	How do Neural Networks Work?	CO1	L1	6M
	b	Discuss different learning mechanisms used in artificial neural networks.	CO1	L2	6M

UNIT-II

3	a	How does Perceptron work?	CO2	L1	6M
	b	Explain about Back Propagation learning in detail.	CO2	L2	6M

OR

4	a	Explain how supervised learning happens in neural networks with example.	CO2	L2	6M
	b	Describe about the application of Neural networks to electric load forecasting.	CO2	L2	6M

UNIT-III

5	a	Distinguish Auto associative & Hetero associative memories.	CO3	L2	6M
	b	With architecture and algorithm explain about Discrete Hopfield Network.	CO3	L2	6M

OR

6	a	What is Associative Memory? Explain it in detail.	CO3	L1	6M
	b	Explain about Pattern Recognition with example.	CO3	L2	6M

UNIT-IV

7	a	Explain fuzzy intersection operation.	CO5	L2	6M
	b	What is the sources fuzzy information? and explain each.	CO5	L2	6M

OR

8	a	What is fuzzy logic? Explain it in detail.	CO5	L2	6M
	b	Explain the Features of Membership Functions.	CO5	L2	6M

UNIT-V

9	a	Explain fuzzy rule based system in fuzzy logic.	CO6	L2	6M
	b	Explain Centre of gravity defuzzification method with an example.	CO6	L2	6M

OR

10	a	Explain any one of the defuzzification method.	CO6	L2	6M
	b	Explain working of Greg Viot's Fuzzy Cruise controller.	CO6	L2	6M

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