O.P.Code: 20EE0239	R20	H.T.No.									

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech. IV Year I Semester Regular & Supplementary Examinations December-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	How artificial neuron is inspired from the biological neuron? Explain.	CO1	L2	6M
	b	Explain the basic architecture of McCulloch – Pitts neuron model.	CO1	L3	6M
		OR			
2		Try to implement XOR problem with two inputs and discuss it.	CO1	L4	12M
		UNIT-II			
3		Explain input layer, hidden layer & output layer computations in Backpropagation Network.	CO2	L2	12M
		OR			
4	a	How does Perceptron work?	CO2	L1	6M
	b	Describe about the application of Neural networks to electric load forecasting	CO2	L2	6M
		UNIT-III			
5	a	Explain about Pattern Recognition with example.	CO3	L2	6M
	b	With example, explain how to calculate Hamming Distance.	CO3	L2	6M
		OR			
6		Explain about types of associative memories along with architecture and algorithm.	CO4	L2	12M
		UNIT-IV			
7	a	Compare and contrast Fuzzy vs Crisp.	CO5	L2	6M
	b	Determine the union and intersection of the fuzzy sets, where A = {(1.0.1). (2.0.5). (3, 0.8), (4, 1.0), (5.0.7). (6.0.2)} and B = {(1.1). (2.0.8), (3.0.4), (4.0.1)}	CO5	L3	6M
		OR			
8	a	What is fuzzy logic? Explain it in detail.	CO5	L2	6M
	b	What is the sources fuzzy information? and explain each.	CO5	L2	6M
		UNIT-V			
9	a	What are the basic building blocks in fuzzy logic?	CO6	L1	6M
	b	What are the advantages of fuzzy logic control?	CO6	L1	6M
		OR			
10		Discuss any one fuzzy logic application in electrical engineering.	CO6	L2	12M

***** END *****

a8