

Jaypee University of Engineering & Technology, Guna**T-2 (Even Semester 2023)****18B11CI934 - SOFT INTELLIGENCE**

Maximum Duration: 1 Hour 30 Minutes

Maximum Marks: 25

Notes:

1. This question paper has 4 questions.
2. Write relevant answers only.
3. Do not write anything on question paper (Except your Er. No.).

		Marks	CO No.
Q1.	A very simplified model of real neurons is known as a Threshold Logic Unit (TLU). Explain the McCulloch-Pitts neuron model based on TLU. What are the missing features of this McCulloch-Pitts neuron model?	[06]	CO3
Q2.	Show the calculation of error for a multi-layer feed-forward back-propagation network with the help of an example.	[06]	CO2
Q3.	An associative memory is a content-addressable structure that allows, the recall of data, based on the degree of similarity between the input pattern and the patterns stored in memory. Explain its error-correction capability with the help of an example.	[06]	CO4
Q4.	Hopfield model is one-layer unidirectional auto-associative memory. Explain the Encoding, Weight matrix, Decoding methods and Performance measures of this model.	[07]	CO4