School of Engineering
B.TECH Electronics and Communication Engineering
Semester End Examination - Nov 2023

Duration : 180 Minutes
Max Marks : 100

Sem VII - BECE4401 - Soft Computing

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1)	Tell the components of Biological neural network	K1 (2)
2)	Explain the term Inversion and Deletion with Example	K2 (4)
3)	Outline various properties of crisp set	K2 (6)
4)	Construct a Mamdani model for fuzzy inference	K3 (9)
5)	Experiment De Morgan's laws using Venn Diagram.	K3 (9)
6)	Evaluate the network output with binary sigmoidal function having following parameters: inputs: [0.8, 0.6, 0.4], weights: [0.1, 0.3, -0.2], with bias b=0.35 having input 1	K5 (10)
7)	Distinguish between fuzzification and defuzzification. Explain with help of real time example.	K4 (12)
8)	Determine the Composition of fuzzy relations with an example	K5 (15)
9)	Determine the methods of inference in fuzzy logic. Explain each with proper example	K5 (15)
10)	Elaborate the Composition of fuzzy relations with an example	K6 (18)