


Assignment-2, Session: 2025-2026

[Programme: B.Tech. CSE] [Semester: IV]

Course Title: Concepts of Neural Networks		Max Marks: 20		
Course Code: CSA2023				
Instructions:	1. All questions are compulsory 2. Assume missing data suitably, if any 3. All questions should be of higher learning.	BTL Level (K)		
Unit 3	CO3: Apply basic concepts to build single and multi-layer feed-forward neural networks.			
Unit 4	CO4: Analyze and train radial-basis function and recurrent networks;			
Unit 5	CO5: Explain self-organizing map for real life problems. CO6: Discuss and adapt appropriate neural networks model for real life applications.			
Q.No.	Section A (3×4=12 Marks)	Unit	COs	K
1	Analyze the working of a Single Layer Perceptron network. Discuss why it fails to solve non-linearly separable problems with a suitable example.	Unit 3	CO3	K4
2	Explain the architecture and functioning of Recurrent Neural Networks (RNNs). How do they differ from feedforward neural networks?	Unit 4	CO4	K4
3	Illustrate the concept of Self-Organizing Feature Maps (SOFM) with a suitable example. How do they perform clustering and dimensionality reduction?	Unit 5	CO5	K5
Section B (2×4=8 Marks)				
5	Compare and analyze Jordan Networks and Elman Networks. Discuss their architectures and applications in learning.	Unit 4	CO5	K5
6	Explain the Hopfield Network. How is it used as an associative memory? Briefly mention its energy function and convergence.	Unit 5	CO6	K6