



**B.Tech V Semester Regular/Supplementary Examinations, February 2024**

**INTRODUCTION TO AI & NEURAL NETWORKS**  
*(CSE (AI&ML))*

**Maximum Marks: 70**

**Date: 15.02.2024 Duration: 3 hours**

- Note:**
1. This question paper contains two parts A and B.
  2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
  3. Part B consists of 5 Units. Answer any one full question from each unit.
  4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A		CO	Bloom Tx
All the following questions carry equal marks (10x2M=20 Marks)			
1	Define an agent.	I	L1
2	Define Best-first-search.	I	L1
3	Write about Predicate with an example?	II	L2
4	How Knowledge is represented?	II	L2
5	List the advantages of Depth First Search?	III	L4
6	Define Neural Network.	III	L1
7	Write about Un-Supervised Learning in Learning Process?	IV	L2
8	What is Learning process in Neural Networks?	IV	L2
9	Write a short note on Adaptive Filtering Problem?	V	L2
10	Compare Single Layer Perceptron with Multi-Layer Perceptron.	V	L4
Part-B			Bloom Tx level
Answer All the following questions. (5X10M=50Marks)			
11	Analyze "Artificial Intelligence with Artificial Intelligence Technique" and explain AI Technique in detail. 10M	I	L4
OR			
12	a. Identify various ways to formulate the problem? 5M b. List the various problem characteristics. 5M	I I	L3 L4
13	a. Compare Procedural knowledge with Declarative Knowledge.5M b. List the Issues in knowledge representation.5M	II II	L4 L4
OR			
14	a. Compare forward reasoning with backward reasoning. 5M b. Justify Representation of facts in predicate logic with an example. 5M	II II	L4 L5
15	Explain non Monotonic reasoning in AI. 10M	III	L5
OR			
16	a. Explain the Neural Network Architecture with a neat diagram. 6M	III	L5

	b. Distinguish Artificial Neural Networks with Human neuron? 4M	III	L4
17	a. Explain the concept of Error Correction Learning in Learning Process?5M b. Explain the concept of Boltzmann Learning in Learning Process?5M	IV IV	L5 L5
	OR		
18	a. Organize the statistical nature of the Learning Process? 5M b. Compare learning with and without teacher? 5M	IV IV	L3 L4
19	Explain Perceptron Convergence Theorem in detail. 10M	V	L5
	OR		
20	a Explain Hessian Matrix in detail. 5M b. Analyze Back Propagation in Neural Networks? 5M	V V	L5 L4