



R20 Regulation **Subject code: 3P5GA**
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
 (Autonomous, Accredited by NAAC with 'A+' Grade)
B.Tech V Semester Supplementary Examinations, July 2024

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

Maximum Marks: 70

Date: 19.07.2024 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	What is an AI Technique?	I	L1
2	What is Heuristic Search?	I	L1
3	Define First order Logic.	II	L1
4	How Knowledge is represented?	II	L2
5	Define Neural Network.	III	L1
6	Write the advantages of Breadth First Search?	III	L2
7	Give an overview of Learning process in Neural Networks?	IV	L2
8	Explain the Supervised Learning in Learning Process?	IV	L2
9	Define Perceptron with an example?	V	L1
10	Why we need Back Propagation in Neural Networks?	V	L2
Part-B			Bloom Tx level
Answer All the following questions.		(5X10M=50Marks)	
11	What are the problems encountered during hill climbing and what are the ways available to deal with these problems? 10M	I	L4
OR			
12	a. What can Ai do today? 5M b. Explain about problem state space search. 5M	I I	L3 L4
13	a. Write the differences between Predicate and Propositional Logic. 5M b. List the Issues in knowledge representation. 5M	II II	L3 L4
OR			
14	a. State representation of facts in Predicate Logic with an example. 5M b. Explain the Resolution with an example. 5M	II II	L3 L2
15	a. Write the differences between Monotonic Reasoning and Non-Monotonic Reasoning? 5M b. Explain the implementation of Depth First Search in Symbolic Reasoning? 5M	III III	L3 L2
OR			

16	a. Explain the Neural Network Architecture with a neat diagram?6M b. List out the procedures in Neural Networks. Explain? 4M	III III	L5 L3
17	a. Describe the concept of Memory Based Learning in Learning Process? 5M b. Explain the concept of Hebbian Learning in Learning Process? 5M	IV IV	L3 L2
	OR		
18	a. Summarize the statistical nature of the Learning Process? 5M b. Explain Supervised Learning in Learning Process? 5M	IV IV	L4 L2
19	Describe about Least Mean Square Algorithm?10M	V	L4
	OR		
20	a. How Back Propagation Algorithm works in Neural Networks. Explain? 5M b. List out the methods for evaluating the Hessian Matrix. Explain? 5M	V V	L3 L4