



R20 Regulation

Subject code:3P5GA

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech V Semester Supplementary Examinations, December 2024

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

Maximum Marks: 70

Date:23.12.2024

Duration: 3 hours

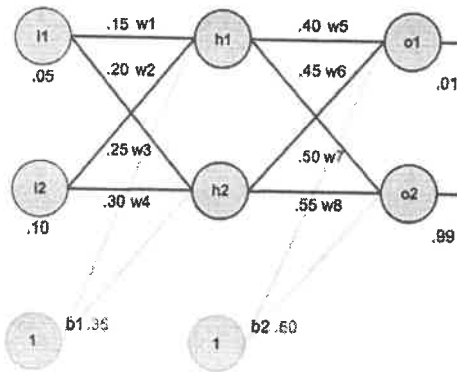
- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub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

Part-A

All the following questions carry equal marks (10X2M=20) Marks)		CO	Bloom Tx
1	Write the four components of state space search?	1	L1
2	What is the use of Heuristic Functions?	1	L1
3	Can you represent the resolution in predicate logic?	2	L1
4	What is resolution	2	L1
5	Define non- monotonic reasoning	3	L1
6	List out the benefits of neural networks	3	L1
7	List out the learning rules.	4	L1
8	Define error correction	4	L1
9	Define perceptron	5	L1
10	Define hessian matrix	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		CO	Bloom Tx
11	Explain the Heuristic search techniques (i) Best for Search (ii) Constraints satisfaction [5M+5M]	1	L2
OR			
12	Explain production systems and problem characteristics. [10M]	1	L2
13	Explain the issues in knowledge representation. [10M]	2	L2
OR			
14	Differentiate between forward versus backward reasoning with an example. [10M]	2	L2
15	Differentiate between procedural versus declarative knowledge. [10M]	3	L2
OR			
16	Describe the benefits of neural networks and explain network architectures. [10M]	3	L2
17	Explain learning rules. [10M]	4	L2

	OR			
18	Discuss about statistical nature of the learning process.	[10M]	4	L2
19	Explain unconstrained optimization techniques.	[10M]	5	L2
	OR			
20	Explain back propagation and differentiation with learning rate 0.5		5	L2
		[10M]		