Name: 27/9/23 Student University Roll No.:	Printed Pages:01
School of Engineering First Sessional Examination, Odd Semester (AS: 2023-24) B. Tech: CSE-AI Year:3 Semester:5	
Course Title: Artificial Neural Network Course Code: BAI3503	M.M.: 30 Time: 1 *hr*

Instructions:Read the question carefully.

	SECTION 'A' Q.N.1. Attempt all parts of the following:	Course Objective	Marks
a)	Write the equation of Induced local field.	CO1	1
b)	What do you understood by training of Artificial Neural Network?	CO2	1
c)	Draw the Block Diagram of Simple Model of Machine Learning.	CO1	1
d)	What is Reinforcement learning?	CO2	1
e)	What is the role of Summing Junction?	CO2	1
	SECTION 'B' **Q.N.2. Attempt any two parts of the following:**	**Course Objective**	**Marks**
a)	Discuss the Threshold and Sigmoid FunctionActivation Functions.	CO1	7.5
b)	Discuss the supervised and unsupervised learning approach.	CO1	7.5
c)	What is error correction learning method?	CO2	7.5
d)	Write the advantages of competitive learning approach.	CO2	7.5
	SECTION 'C' **Q.N.3. Attempt any one part of the following**	**Course Objective**	**Marks**
a)	Define the benefits of Neural Network.	CO1	10
b)	How to represent the Neural Network as a directed Graph. Discuss the three Basic Rules?	CO1	10
c)	Discuss the Hebbian learning Algorithm. Also draw the Artificial Neural Network Model with updated weights that can classify the target class as shows in table 1.	CO2	10

Table.1

Input				Target	
	x_1	x_2	b		y
x_1	-1	-1	1	Y_1	-1
x_2	-1	1	1	Y_2	-1
x_3	1	-1	1	Y_3	-1
x_4	1	1	1	Y_4	1

Table 2: Mapping between COs and questions

(Number of COs may vary from course to course)

COs	Questions Numbers	Total Marks
CO1	1a),1c),2a),2b),3a),3b)	37
CO2	1b)1d),1e),2c)2d),3c)	28