

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- MAY-2023

COURSE CODE(CREDITS): 21M1WEC233(3)

MAX. MARKS: 25

COURSE NAME: Applied Machine Learning for IoT

COURSE INSTRUCTORS: Munish Sood

MAX. TIME: 1 Hour 30 Minutes

Note: All questions are compulsory. Marks are indicated against each question in square brackets.

Q1) Implement logic OR operation using Widrow Hoff/Adaline/Delta rule. Use bipolar inputs and target. Consider learning rate $\alpha = 0.1$. Perform 1 epoch for network training. CO-2 (5)

Q2) Using Hebb's rule find weights required to perform the following classification of given input pattern. '+' symbol represents the value +1 and empty symbol equals -1. Consider "I" belongs to the members of the class and hence target value = 1 and "O" does not belong to the members of the class and hence target value = -1. CO-3 (5)

+	+	+
	+	
+	+	+

"I"

+	+	+
+		+
+	+	+

"O"

Q3) Implement logic AND operation using Perceptron network. Consider learning rate $\alpha = 1$.

CO-2 (5)

Q4) Explain with the help of example memory based learning rule.

CO-3 (5)

Q5) Write short notes on

CO-4 (5)

- Convolutional Neural Network
- Recurrent Neural Network
- Credit Assignment Problem