

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2023

B.Tech-I Semester (ECE)

COURSE CODE(CREDITS): 20B1WEC532 (3)

MAX. MARKS: 15

COURSE NAME: Introduction to Machine Learning

COURSE INSTRUCTORS: Lt. Pragya Gupta

MAX. TIME: 1 Hour

Note: (a) All questions are compulsory.

(b) Marks are indicated against each question in square brackets.

(c) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

Q1. In the process of exploring the numeric data, how do you measure the central tendency and spread of the data? Why is it important to know the central tendency and spread of the data values? [3]CO3

Q2. What are the differences between supervised, unsupervised learning, and reinforcement learning? [2]CO2

Q3. What are unsupervised machine learning techniques? Explain them with examples. [2]CO2

Q4. What are the reasons behind the outliers and missing values? How do you handle them in a data set? [2]CO3

Q5. What is underfitting and overfitting? What are the reasons behind the underfitting and how can you avoid underfitting? [2]CO1

Q6. Suppose you have the maths test results for a class of 15 students.

Here are the results:

91 95 54 69 80 85 88 73 71 70 66 90 86 84 73

Make the box whisker plot and interpret the results from the plot. [4]CO3