JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST -1 EXAMINATION- FEB-2023

COURSE CODE (CREDITS): 19B1WEC636 (3)   MAX. MARKS: 15

COURSE NAME: Machine Learning for Data Analysis

COURSE INSTRUCTORS: Dr. Alok Kumar   MAX. TIME: 1 Hour

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

Q.1 What is an attribute in data tuples? Define Nominal, Ordinal and Ratio-Scaled attributes with suitable examples .   [CO1] [2]

Q.2 Consider the two datasets:

Dataset 1: 6, 7, 10, 12, 13, 4, 8, 12   and

Dataset 2: 12, 15, 22, 3, 28, 56, 1, 2.

Find the coefficient of variation and show that which dataset is better?   [CO1] [2]

Q.3 What are the major steps involved in Data Preprocessing? Explain each step with suitable diagram.   [CO2] [2]

Q.4 What are the different types of charts used for data visualization? Explain Scatter plot,

Histogram and Heatmap chart in detail with suitable explanation.   [CO2] [3]

Q.5 Find the interquartile range and draw the box plot for the given **Dataset 3.**
Dataset 3: 6, 47, 49, 15, 43, 41, 7, 39, 43, 41, 36.
What would be the effect on the interquartile range when another sample value 75 is added in the above dataset?   [CO1, CO2] [3]

Q.6 What is the difference between skewness and kurtosis? How many types of kurtosis do we have?

Explain each with suitable diagram. Find the Pearson's coefficient of skewness of the dataset

having mean=24, median = 26 and the standard deviation=34.   [CO1] [3]