JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

Test – 1 Examination, February 2024

B. Tech. VI Semester (CSE/IT)

COURSE CODE (CREDITS): 19BIWCI637 (2) **MAX. MARKS:** 15

COURSE NAME: Statistics and Exploratory Data Analytics

COURSE INSTRUCTORS: Dr. Amol Vasudeva **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 assumptions wherever required.

1. For the following dataset: 4, 5, 9, 6, 8, 10, 3, 7, 18, 13, 20, 16, 14, 11, 15, calculate a 20% trimmed mean. (CO-1) **[2 marks]**

2. Calculate the first and the second coefficient of skewness for the following data. 1, 2, 3, 4, 5, 6, 7, 8, 9, 9. What do you interpret from these values? (CO-1) **[3 marks]**

3. In a college, a list of scores of 10 students is announced. The scores are 56, 45, 69, 78, 72, 94, 82, 80, 63, and 59. Using the percentile formula, find the 70^{th} percentile. (CO-1) **[2 marks]**

4. You want to buy a new camera. One camera has a zoom of 200 and gets an 8 in reviews. The other has a zoom of 250 and gets a 6 in reviews. Which camera you should buy and why? (CO-1) **[2.5 marks]**

5. Calculate the covariance matrix on the following matrix. (CO-2) **[3.5 marks]**

$$\begin{bmatrix} 9 & 8 \\ 6 & 3 \\ 10 & 7 \end{bmatrix}$$

6. Identity the quantitative (discrete or continuous) and qualitative data (nominal or ordered) (CO-1)
   a) Total_number_of_children
   b) Is_Person_feeling_happy
   c) Social_class
   d) Person_height **[2 marks]**