Pabna Cadet College

Year-Final Assignment - 2021

Subject: Statistics

Class: XI

Time: -

Full Marks: 30

Answer all the question.

1. Temperatures of two cold regions for five days are as below:

   City A: 2, 1, -1, 0, 3

   City B: 3, 0, -2, 2, 3

   a. What is standard deviation?
   b. Is standard deviation of a set of negative values negative? Justify mathematically.
   c. Find Mean Deviation about mean of the values of city A.
   d. Which city has more consistent weather? Verify statistically.

2. The first four moments about 3 of a distribution are -1, 5, -10, and 120.

   a. What are moments used for?
   b. Can the second central moment be greater than the third central moment?
   c. Find the second and third moments about arithmetic mean of the distribution.
   d. Find skewness and kurtosis and comment on the values.

3. The arithmetic and geometric means of the first and third quartiles of a distribution are 10 and 8, respectively. The second quartile is 10.

   a. What is the formula suggested by Pearson to find skewness?
   b. Which moments are useful in measuring central tendency and dispersion?
   c. Find skewness from the stem using a suitable formula.
   d. Which method of finding skewness od you think is the best and why?