

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST - 1 EXAMINATIONS-2022

B.Tech-V Semester

COURSE CODE (CREDITS): 20B1WCI531

MAX. MARKS: 15

COURSE NAME: FOUNDATION FOR DATA SCIENCE AND VISUALIZATION

COURSE INSTRUCTORS: Ravindara Bhatt and Prateek Thakral

MAX. TIME: 1 Hour

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

Q1. [2 + 2 + 2 + 1 = 7 Marks]

- Suppose that the probability that an item produced by a certain machine will be defective is 0.1. Find the probability that a sample of 10 items will contain at most 1 defective item.
- Which distribution seems most appropriate for the following phenomenon:
 - Number of Arrivals at a Restaurant.
 - Life Span of Electronic Gadgets
 - Number of alpha particles discharged in a fixed period of time from some radioactive material.
 - Height of the population
- Find the maximum, minimum, median, first quartile, third quartile for the given data set: 80, 340, 100, 70, 40, 60, 230.
- Write python code for drawing box plot for the dataset given in part c).

Q 2. [1 + 1 + 2 = 4 Marks]

- The possible values of the correlation coefficient lie between _____ and _____.
- During analysis, how do you treat missing values?
- The scores of 9 students in History and Geography are mentioned in the Table 1 given below. Compute Spearman Coefficient.

Table 1

History	Geography
35	30
23	33