



**ST. JOSEPH'S UNIVERSITY, BENGALURU -27**  
**BCA (DATA ANALYTICS) – I SEMESTER**  
**SEMESTER EXAMINATION: OCTOBER 2022**  
(Examination conducted in December 2022)

Registration Number:

Date & session:

**BCADA 1221 – EXPLORATORY DATA ANALYSIS USING EXCEL**

**Time: 2 Hours**

**Max Marks: 50**

**This paper contains TWO printed pages and THREE parts**

**PART- A**

**Answer ALL Questions**

**5X1 =5**

1. Give the definition of statistics.
2. What do you mean by central tendency?
3. Define correlation.
4. What do you mean by Random Experiment?
5. Define Poisson distribution.

**PART- B**

**Answer any FIVE of the following**

**5X3=15**

6. Define Nominal data, ordinal data, and interval data.
7. Distinguish between discrete and continuous variable.
8. What do you mean by absolute and relative measure of dispersion.
9. Write down the expression for correlation coefficient and mention its limits.
10. Define simple event, null event and sure event.
11. What do you mean by probability distribution?
12. Define central limit theorem.

**PART- C**

**Answer any THREE of the following**

**3X10=30**

13. The marks scored by 8 students selected from a class are 78, 89,93,65, 34, 79, 66 and 60. Find Mean, Variance, Standard deviation and coefficient of variation.

14. Following is the information on two variables X and Y

X	3	4	5	6	7	8	9
Y	5	7	6	8	10	9	11

Find Karl Pearson's Correlation coefficient.

15. In a box there are 4 defective and 4 good items. A sample of 3 items is randomly selected from the box. Construct the probability distribution of number of defective items in the selected sample and present it in tabular form and functional form.

16. a) 40% of the items produced by the machine are known to be substandard. A sample of 5 items is randomly selected from the lot of items produced by the machine. Find the probability that the number of substandard items in the selected sample is

i) equal to 2

ii) at least 2

b) A machine is adjusted to produce the items with mean weight 50 grams and standard deviation of 2.5 grams. If there are 5000 items then find the expected number of items with weight

i) less than 46 grams

ii) more than 57 grams and

iii) between 46 grams and 57 grams.