PRESIDENCY UNIVERSITY
BENGALURU

SET B

SCHOOL OF LAW
END TERM EXAMINATION - JAN 2024

Semester : Semester III - 2022
Course Code : BBL2003
Course Name : Business Statistics
Program : BBA LLB Honors

Date : 03-JAN-2024
Time : 1:00 PM - 4:00 PM
Max Marks : 100
Weightage : 50%

Instructions:
(i) Read all questions carefully and answer accordingly.
(ii) Question paper consists of 1 part.
(iii)   Scientific and non-programmable calculator are permitted.
(iv)   Do not write any information on the question paper other than Roll Number.

ANSWER ALL THE QUESTIONS   10 X 10M = 100M

1. Describe statistics and explain its meaning in the context of quantitative analysis. How does statistics contribute to decision-making in various fields? Provide real-world examples of statistical applications. What are the primary and secondary data sources?

(CO1) [Comprehension]

2. In 1990, out of a total of 2,000 students in a college 1,400 were for Graduation and the rest for Post-Graduation (P.G.). Out of 1,400 Graduate students 100 were girls. However, in all, there were 600 girls in the college. In 1995, the number of graduate students increased to 1,700, out of which 250 were girls, but the number of P.G. students fell to 500 of which only 50 were boys. In 2000, out of 800 girls, 650 were for Graduation, whereas the total number of graduates was 2,200. The number of boys and girls in P.G. classes was equal. Represent the above information in tabular form. Also, calculate the percentage increase in the number of graduate students in 2000 as compared to 1990.

(CO1) [Comprehension]

3. Discuss the relationship between mean, median and mode, using the diagram.

(CO2) [Comprehension]

4. Calculate the Median and Mode from the following data, using them find Arithmetic Mean.

Marks	Frequency
0.10	8
10-20	15
20-30	22
30-40	20
40-50	10
50-60	5

(CO2) [Comprehension]

5. Estimate Mean Deviation from the following data.

Wages per week	No of worker
10-20	4
20-30	6
30-40	10
40-50	20
50-60	10
60-70	6
70-80	4

(CO3) [Comprehension]

6. The annual salaries (in rupees) of a group of employees are presented in the following table, calculate the standard deviation.

Salaries (in ,000)	45	50	55	60	65	70	75	80
Number of person	3	5	8	7	9	7	4	7

(CO3) [Application]

7. Examine Karl Pearson Coefficient of Correlation.

X	Y
9	15
8	16
7	14
6	13
5	11
4	12
3	10
2	8
1	9

(CO4) [Application]

8. Following table shows ranking of ten states according of their agricultural production and industrial production. Calculate Spearman's rank correlation coefficient.

Agriculture	Industry
8	9
3	5
9	10
2	1
7	8
10	7
4	3
6	4
1	2
5	6

(CO4) [Application]

9. From the following data, examine the two regression equations, X on Y and Y on X.

X.	0	1	2	3	4
Y	8	10	15	13	14

(CO5) [Application]

10.

From the following data analyze the two regression equations, X on Y and Y on X.

X.	6	2	10	4	8
Y	9	11	5	8	7

(CO5) [Application]

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