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SCHOOL OF LAW
Barasat, Kolkata- 700125

BRAINWARE UNIVERSITY

Term End Examination 2025-2026

Programme – BBA LL.B.-2021/BBA LL.B.-2023/BBA LL.B.-2024/BBA LL.B.-2025

Course Name – Business Statistics

Course Code - BBALLB201

(Semester II)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

(i) Choose the correct option: The variance of first n natural numbers is

a) $n^2 - 1$

b) $\frac{n^2 - 1}{10}$

c) $\frac{n^2}{12}$

d) $\frac{n^2 - 1}{12}$

(ii) Select the correct option: If $r = 0.6$, $b_{yx} = 1.2$, then $b_{xy} =$

a) 0.3

b) 0.2

c) 0.1

d) 0.4

(iii) Select the correct option: Two regression lines are parallel to each other if their slope is

a) Different

b) Same

c) Negative

d) None of these

(iv) Select the correct option: If b_{xy} is positive, then b_{yx} will be

a) Positive

b) Negative

c) 0

d) 1

(v) Select the correct option: The correlation coefficient between $U = X$ and $V = -X$ is

a) 1

b) -1

c) 0

d) None of these

(vi) Identify the correct option: The method of moving average is used to find the

a) Secular trend

b) Seasonal variation

4. Illustrate a straight line trends in least square method from the following: (3)

Years	1980	1981	1982	1983	1984	1985	1986
Average production per month ('000) tons	20	22	21	23	22	24	23

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5. Write Laspeyres method and Fisher's index. (3)

6. Examine the mean deviation of the following about median 46,79,26,85,39,65,29,59,73 (3)
 is 18.

OR

A group of students took a math test, and their scores were grouped into the following frequency distribution: (3)

Test Score	40-50	50-60	60-70	70-80	80-90	90-100
No. of student	5	8	12	15	10	5

Evaluate first Quartile.

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Describe the functions of statistics. (5)

8. Illustrate the quartile deviation. (5)

Height	125-135	135-140	140-155	155-165	165-175	175-185
No. of students	2	7	24	27	13	3

9. Illustrate the mean deviation from median. (5)

Marks	0-10	10-20	20-30	30-40	40-50
No. of students	5	8	15	16	6

10. When the cost of tobacco was increased by 50% a certain hardened smoker, who maintained his former scale of consumption, said that the rise had increased his cost of living by 5%. Calculate the percentage of his cost of living was due to buying tobacco before the change in price. (5)

11. Calculate the correlation coefficient: (5)

x	1	2	3	4	5
y	6	8	11	9	12

12. Evaluate the mean deviation about the arithmetic mean of the following distribution (5)

x	10	11	12	13	14
f	1	2	4	2	1

OR

- Evaluate the trend by four yearly moving average of the following. (5)

Year	1990	1991	1992	1993	1994	1995
Value	2	6	1	5	3	7
Year	1996	1997	1998	1999	2000	
Value	2	6	4	8	3	

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