

## III Semester 5 Year B.B.A.LL.B./B.Com.LL.B. Examination, June/July 2025 (Even Sem.) BUSINESS STATISTICS

Duration: 3 Hours

Max. Marks: 80

Instructions:

- 1. Answer all five Units.
- One essay type question and short note question or problems is compulsory from each Unit.
- 3. Use simple calculator.

UNIT-I

Q. No. 1. (a) Draw less than and more than Ogives for the following data and determine the median graphically.

Marks: 10

Class Interval	Frequency	
10 – 20	2	
20 – 30	5	
30 – 40	7	
40 – 50	12	
50 - 60	9	
60 – 70	4	

OR

Q. No. 1. (a) What is primary data? Explain the various methods of collecting primary data.

Marks: 10

Q. No. 1. (b) Draw a pie chart to represent the following data.

Marks: 6

Colour	Frequency
Red	100
Blue	130
Green	240
Yellow	50
Other	80
OR	

Q. No. 1. (b) Write a short note on tabulation.

Marks: 6

P.T.O.



## UNIT - II

Q. No. 2. (a) Calculate the geometric and harmonic mean from the following data.

Marks: 10

Class Interval	Frequency
100 – 200	4
200 - 300	6
300 - 400	10
400 - 500	12
500 - 600	11
600 – 700	13

OR

Q. No. 2. (a) Write the merits and demerits of mean, median and mode.

Marks: 10

Q. No. 2. (b) Write a short note on quarties.

Marks: 6

OR

Q. No. 2. (b) Calculate the median of the following distribution.

Marks: 6

х	f
10	24
15	6
8	30
20	16
18	26

UNIT - III

Q. No. 3. (a) What is Skewness ? Explain the types and measures of Skewness.

Marks: 10

OR



Q. No. 3. (a) You are given below the daily wages paid to the workers in two factories X and Y.

Marks: 10

	No. of workers	
Daily Wages	Factory X	Factory Y
120 - 130	15	25
130 – 140	30	40
140 – 150	44	60
150 – 160	60	35 12 15
160 – 170	30	
170 – 180	14	
180 – 190	7	5

Use appropriate measure and answer the following:

- (i) Which factory pays higher wages ?
- (ii) Which factory has a more consistent wages structure?

Q. No. 3. (b) Calculate the range and it's coefficient from the following.

Marks: 6

No. of student	
5	
8	
10	
7	
12	
9	

OR

Q. No. 3. (b) Define dispersion. Explain the measures of dispersion.

Marks: 6

UNIT - IV

Q. No. 4. (a) Explain correlation analysis.

Marks: 10



Q. No. 4. (a) Calculate Spearman's rank correlation co-efficient between marks in Accountancy and marks in Statistics from the data.

Marks: 10

Marks in Accountancy	Marks in Statistics
78	84
39	47
36	51
65	53
62	58
90	86
82	62
75	68
25	60
98	91

Q. No. 4. (b) From the following data find out two regression lines for the following data.

Marks: 6

X Y
Mean 15.5 22
SD 3 4
r = 0.85

OR

Q. No. 4. (b) Write a short note on regression analysis.

Marks: 6

UNIT - V

Q. No. 5. (a) Calculate index numbers from the following data.

Marks: 10

(a) Fisher's price index number.

(b) Test whether Fisher's price index satisfy time reversal and factor reversal test.

Commodities	p <sub>o</sub>	q <sub>o</sub>	p <sub>1</sub>	$q_1$
Α	8	5	10	11
В	8.5	6	9	9
C	9	4	12	6

OR

Q. No. 5. (a) What is index number ? Explain the uses of index number.

Marks: 10

Q. No. 5. (b) Write a short note on time reversal test and factor reversal test.

Marks: 6

OR

Q. No. 5. (b) Write a note on cost of living index.

Marks: 6