6015/7015

III Semester 5 Year B.B.A. LL.B./B.Com. LL.B. Examination, July/August 2026
BUSINESS STATISTICS

Duration : 3 Hours Max. Marks : 80

Instructions :
1. **Answer all five Units.**
2. **Answer one essay type question and one short note/problem from each unit.**
3. **Answer should be written in English only.**
4. **Use simple calculator only.**

Unit – I

Q. No. 1. (a) What is Primary Data ? Explain the sources of Primary and Secondary data. Marks : 10

OR

Q. No. 1. (a) Define classification of data. Explain different types of classification of data. Marks : 10

Q. No. 1. (b) Explain in brief the importance of statistics with respect to business and industry. Marks : 6

OR

Q. No. 1. (b) Represent the following distribution of marks in Marks : 6
a) Frequency polygon.
b) Frequency curve.

CI	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60
f	2	5	12	7	4

Unit – II

Q. No. 2. (a) Calculate Arithmetic Mean, Median and Mode for the following data. Marks : 10

Age	No. of Persons
20 – 25	100
25 – 30	140
30 – 35	200
35 – 40	360
40 – 45	300
45 – 50	240
50 – 55	140
55 – 60	120

OR

P.T.O.

Q. No. 2. (a) What do you mean by measures of central tendency ? Explain the Mathematical properties of arithmetic mean with example. Marks : 10

Q. No. 2. (b) Calculate Q_2 and Q_1 for the following data. Marks : 6

Cl	f
0 – 5	7
5 – 10	18
10 – 15	25
15 – 20	30
20 – 20	20

OR

Q. No. 2. (b) Write a short note on Median and its merits and demerits. Marks : 6

Unit – III

Q. No. 3. (a) Goals scored by two teams A and B in foot ball matches are as follows. Marks : 10

No. of goal scored in a match	No. of Matches	
	Team	Team
(X)	A	B
1	22	11
2	8	10
3	7	8
4	8	7
5	3	4

Answer the following questions.

1) Which team has better score ?
2) Which team is more consistent ?

OR

Q. No. 3. (a) Define dispersion. Explain various measures of dispersion. Marks : 10

Q. No. 3. (b) Calculate Karl Pearson's coefficient of Skewness. Marks : 6

Classes	f
0 – 5	12
5 – 10	18
10 – 15	28
15 – 20	26
20 – 25	16

OR

Q. No. 3. (b) Write a short note on Skewness. Marks : 6

Unit – IV

Q. No. 4. (a) Define regression. Explain linear and non linear regression and lines of regression. Marks : 10

OR

Q. No. 4. (a) Find the regression equations from the following data. Marks : 10

X	Y
55	74
57	77
58	78
59	75
60	78
61	82
62	82
64	79

Q. No. 4. (b) The ranks of 16 students in test of Mathematics and statistics are given below. Calculate the rank correlation coefficient for the above data. Marks : 6

Ranks in Mathematics	Ranks in Statistics
1	1
2	10
3	3
4	4
5	5
6	7
7	2
8	6
9	8
10	11
11	15
12	9
13	14
14	12
15	16
16	13

OR

Q. No. 4. (b) Write a note on correlation. Marks : 6

Unit – V

Q. No. 5. (a) Compute Fisher's price index numbers and show that it satisfies time reversal and factor reversal test. Marks : 10

Items	2020 Price in Rs.	2020 Quantity	2021 Price in Rs.	2021 Quantity
A	8	15	9	15
B	7	12	8	13
C	10	10	10	10
D	12	14	15	16

OR

Q. No. 5. (a) Explain the steps in the construction of Index numbers. Marks : 10

Q. No. 5. (b) Compute the cost of timing index numbers from the following by using family budget method. Marks : 6

Group	Weight	Price in Rupees Base Year	Price in Rupees Current Year
Food	10	2000	2520
Housing	5	800	1200
Clothing	3	400	500
Fuel	7	500	700
Miscellaneous	5	800	1000

OR

Q. No. 5. (b) Define Index numbers. Explain its features. Marks : 6