



6015

III Semester 5 Year B.B.A. LL.B. Examination, December 2019
BUSINESS STATISTICS
(2018 and 2019 Batch)

Duration : 3 Hours

Max. Marks : 80

- Instructions :** 1. Answer **all 5** questions.
 2. One essay type and one short note question or problem from **each** Unit have to be attempted.
 3. **Use** simple calculator.

UNIT – I

Q. No. 1. (a) What is Primary Data ? Explain various methods of collecting Primary Data. Marks : 10

OR

- (a) Mention the requisites of a good table. Marks : 10
 (b) Sales of a company from 2012-2013 to 2016-17 are given below : Marks : 6

Year	2012-13	13-14	14-15	15-16	16-17
Sales (Crores)	85	109	204	126	209

Represent this data by a suitable bar diagram.

OR

- (b) Write a short note on Pie-Diagram with example. Marks : 6

UNIT – II

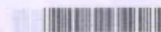
Q. No. 2. (a) Calculate the Mean, Median and Mode for the following : Marks : 10

Classes	Frequency
28-31	1
32-35	14
36-39	56
40-43	172
44-47	245
48-51	263
52-55	156
56-59	67
60-63	23
64-67	03

OR

- (a) Write merits and demerits of Mean, Median and Mode. Marks : 10

P.T.O.



(b) Calculate Harmonic Mean for following :

Marks : 6

Value	Frequency
0-10	4
10-20	8
20-30	14
30-40	19
40-50	25
50-60	32
60-70	24
70-80	17
80-90	12
90-100	7

OR

(b) Write a short note on Quartiles.

Marks : 6

UNIT – III

Q. No. 3. (a) Calculate Karl-Pearson's co-efficient of skewness.

Marks : 10

Classes	Frequency
0-5	12
5-10	18
10-15	28
15-20	26
20-25	16

OR

(a) The number of employees and their average wages and variance of the wages per employee for 2 factories are given below. In which factory the variation is greater in the distribution of daily wage/employee ?

Marks : 10

	Factory A	Factory B
No. of employees	50	100
Average wage	120	85
Variance	3	4



- (b) What do you mean by Quartile Deviation ? Mention the merits of Quartile Deviation.

Marks : 6

OR

- (b) Write a 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

- (a) Obtain Rank correlation co-efficient from the following data :

Marks : 10

Marks in Science

Marks in Mathematics

70	91
65	76
71	65
62	83
58	90
69	64
78	55
64	48

- (b) From the following data find out two regression lines.

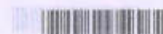
Marks : 6

	X	Y
Mean	15.5	22
S.D.	3	4
$r = 0.85$		

OR

- (b) Write a short note on Rank-correlation.

Marks : 6



UNIT – V

- Q. No. 5. (a) Define Index Numbers. Explain different steps involved in the construction of Index Numbers.

Marks : 10

OR

- (a) Compute Fisher's Index Number. Show that it satisfies both Time Reversal Test (TRT) and Factor Reversal Test (FRT).

Marks : 10

Item	2018		2019	
	Price	Quantity	Price	Quantity
P	5	6	6	7
Q	7	12	6	13
R	6	15	8	15
S	8	10	8	12

- (b) Construct the cost of living index number from the table given below :

Marks : 6

By Family Budget Method

Commodity	A	B	C	D	E
Quantity in units 2015	50	100	60	30	40
Price per unit 2015	6	2	4	10	8
Price per unit 2020	10	2	6	12	12

OR

- (b) Write short note on "Weights" in index number.

Marks : 6