6015/7015

III Semester 5 Yr. B.B.A.,LL.B./B.Com.,LL.B. Examination, March/April 2024
(Odd Sem.)
BUSINESS STATISTICS

Duration : 3 Hours Max. Marks : 80

Instructions : 1. Answer all five Units.
2. One essay type question and short note question or problems is compulsory from each Unit.
3. Use simple calculator only.
4. Answer should be written in English completely.

UNIT – I

Q. No. 1. a) Draw a percentage bar diagram for the following data : Marks : 10

Expenditure	Company A Rs.	Company B Rs.
Materials	3,00,000	4,00,000
Wages	50,000	60,000
Power	1,00,000	1,30,000
Maintenance	20,000	30,000
Total	**4,70,000**	**6,20,000**

OR

Q. No. 1. a) Define statistics. Explain the scope and limitations of statistics. Marks : 10

Q. No. 1. b) Write a short note on classification. Marks : 6

OR

Q. No. 1. b) Mention the components of a good table. Marks : 6

P.T.O.

UNIT – II

Q. No. 2. a) Explain the various measures of central tendency. Marks : 10

OR

Q. No. 2. a) Calculate mean, median and mode for the following data : Marks : 10

Marks	No. of students
Less than 10	15
Less than 20	35
Less than 30	64
Less than 40	84
Less than 50	96
Less than 60	120
Less than 70	192
Less than 80	256

Q. No. 2. b) Calculate geometric mean from the following data : Marks : 6

Classes	f
0 – 10	5
10 – 20	7
20 – 30	15
30 – 40	25
40 – 50	8

OR

Q. No. 2. b) Find the harmonic mean from the data : Marks : 6

Marks	No. of Students
15 – 25	4
25 – 35	11
35 – 45	19
45 – 55	14
55 – 65	6
65 – 75	2

UNIT – III

Q. No. 3. a) The scores of 2 batsman A and B inning during a certain season are given below. Marks : 10

Mr. A	58	59	60	54	65	66	52	75	69	62
Mr. B	87	89	78	71	73	84	65	66	56	46

Use appropriate measure and answer the following :

(i) Who is the better scorer ?

(ii) Who is more consistent ?

OR

Q. No. 3. a) Find the quartile deviation and its co-efficient. Marks : 10

Weekly wages	Number of workers
250 – 300	5
300 – 350	13
350 – 400	22
400 – 450	44
450 – 500	36
500 – 550	24
550 – 600	16

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

OR

Q. No. 3. b) Calculate mean deviation about the median for the following data : Marks : 6

x	f
10	3
11	12
13	12
14	3
12	18

UNIT – IV

Q. No. 4. a) Ten competitors in a beauty contest are ranked by 3 judges in the following order : Marks : 10

1st Judge	2	7	1	5	3	4	8	6	10	9
2nd Judge	10	6	3	8	7	2	9	5	4	1
3rd Judge	2	5	6	9	1	3	7	4	8	10

Use rank correlation coefficient to determine which pair of Judge has the nearest approach to common taste in a beauty.

OR

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

Q. No. 4. b) Compute the regression equation for the following data : Marks : 6

X	10	12	13	17	18	20	24	30
Y	5	6	7	9	13	15	20	21

OR

Q. No. 4. b) Distinguish between correlation and regression. Marks : 6

UNIT – V

Q. No. 5. a) Define index number. Explain the steps involved in the construction of index number. Marks : 10

OR

Q. No. 5. a) Calculate Fisher's ideal index from the following data and show how it satisfies time reversal test and factors reversal test. Marks : 10

Commodities	Base Year		Current Year	
	Price (Rs.)	Quantity	Price (Rs.)	Quantity
A	10	100	12	96
B	8	96	8	104
C	12	144	15	120
D	20	300	25	250
E	5	40	8	64
F	2	20	4	24

Q. No. 5. b) Write a short note on consumer price index. Marks : 6

OR

Q. No. 5. b) Construct Laspeyre's index number from the following data : Marks : 6

Year	Commodity – A		Commodity – B		Commodity – C	
	Price (Rs.)	Quantity	Price (Rs.)	Quantity	Price (Rs.)	Quantity
2021	10	20	16	12	15	6
2022	8	24	14	14	20	8