



6015/7015

Third Semester 5 Year B.B.A. LL.B./B.Com. LL.B.
Examination, April/May 2022 (Dec. 2021)
BUSINESS STATISTICS

Duration : 3 Hours

Max. Marks : 80

Instructions : 1. Answer all five Units.

- 2. One essay type question and short note/problems is compulsory from each Unit.**
- 3. Figures to the right indicate marks.**
- 4. Answer should be written in English completely.**
- 5. Use simple calculator.**

UNIT – 1

- Q. No. 1. a) Draw less than and more than Ogives to the following frequency distribution and hence, locate the value of median.

Marks : 10

Classes	Frequency
10 – 20	03
20 – 30	08
30 – 40	14
40 – 50	25
50 – 60	15
60 – 70	07
70 – 80	02

OR

- Q. No. 1. a) What is Primary Data ? Explain the methods of collecting primary data.

Marks : 10

- Q. No. 1. b) The following table shows the cost structure of Indian Hotel Industry in percentages.

Marks : 6

Cost Components	Total Expenses %
Administrative	30
Employees payments	20
Repairs and maintenance	14
Food and beverages	12
Power	16
Selling expenses	08

Draw a pie diagram to represent the data.

OR

- Q. No. 1. b) Write a short note on scope of statistics.

Marks : 6

P.T.O.



UNIT – 2

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

Class Intervals	Frequency
15 – 19	06
20 – 24	14
25 – 29	12
30 – 34	10
35 – 39	10
40 – 44	09
45 – 49	09
50 – 54	10
55 – 59	05
60 – 64	04
65 – 69	01

OR

Q. No. 2. a) Define Average. What are the functions and characteristics of good average ?

Marks : 10

Q. No. 2. b) Find quartiles from the following data.

Marks : 6

Age (Years)	No. of employees
Below 20	13
20 – 25	29
25 – 30	46
30 – 35	60
35 – 40	112
40 – 45	94
45 – 50	45
50 and above	21

OR

Q. No. 2. b) Write a short note on median.

Marks : 6

UNIT – 3

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

Marks : 10

Daily Wages	Factory X Workers	Factory Y Workers
12 – 13	15	25
13 – 14	30	40
14 – 15	44	60
15 – 16	60	35
16 – 17	30	12



17- 18	14	15
18 - 19	07	05

Using appropriate measures to answer the following :

- (I) Which factory pays higher average wages ?
(II) Which factory has more consistent wage structure ?

OR

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

Q. No. 3. b) Calculate Quartile Deviation and Coefficient of Quartile Deviation from the following data. Marks : 6

Age (Years)	No. of teachers
50	10
51	12
52	15
53	10
54	14
55	18
56	06

OR

Q. No. 3. b) What is standard deviation ? Explain the merits and demerits of standard deviation. Marks : 6

UNIT – 4

Q. No. 4. a) The following data relates to the age of X and Y. Marks : 10

Age of X (Years)	Age of Y (Years)
25	20
28	26
30	29
32	30
35	25
36	18
38	26
39	35
42	35
45	46

- (I) Obtain the two regression equations.
(II) Determine the most likely age of X when Y's age is 25 years.
Also determine the most likely age of Y when X's age is 30 years.

OR

Q. No. 4. a) Explain Correlation analysis. Marks : 10



- Q. No. 4. b) From the marks obtained by 8 students in Accountancy and Statistics, compute rank correlation.

Marks : 6

Marks in Accountancy	Marks in Statistics
60	10
15	40
20	30
28	50
12	30
40	20
80	60
20	30

OR

- Q. No. 4. b) Write a short note on Regression Analysis.

Marks : 6

UNIT – 5

- Q. No. 5. a) Calculate Fisher's Ideal Index for the following data and verify that it satisfies TRT and FRT.

Marks : 10

Commodities	1999		2000	
	Price	Quantity	Price	Quantity
I	6	50	10	56
II	2	100	2	120
III	4	60	6	60
IV	10	30	12	24
V	8	40	12	36

OR

- Q. No. 5. a) What is Index Number ? Explain the importance and steps in constructing the Index Number.

Marks : 10

- Q. No. 5. b) Calculate index numbers from the following data by (I) Laspeyre's Price Index Number (II) Paasche's Price Index Number (III) Fisher's Price Index Number.

Marks : 6

Commodities	p_0	q_0	p_1	q_1
A	8	5	10	11
B	8.5	6	9	9
C	9	4	12	6

OR

- Q. No. 5. b) Write a short note on Cost of living Index Number.

Marks : 6