

**6015/7015**

**Third Semester 5 Year B.B.A., LL.B./B.Com. LL.B. Examination,
January/February 2025 (Odd Sem.)
BUSINESS STATISTICS**

Duration : 3 Hours

Max. Marks : 80

- Instructions :**
1. Answer all five Units.
 2. One essay type question and short note/problem is compulsory from each Unit.
 3. Figures to the right indicate marks.
 4. Answer should be written in English only.
 5. Use simple calculator only.

UNIT – 1

- Q. No. 1. (a) Prepare a frequency distribution for the following observation by constructing a class interval of 10 and draw a histogram.

Marks : 10

16	12	30	29	22	35	39	40	42	40
50	30	18	12	5	15	3	4	9	45
9	0	5	6	8	15	25	22	3	4
8	12	5	9	3	4	30	32	29	1

OR

- (a) Define statistics. Explain the scope and limitation of statistics.

Marks : 10

- Q. No. 1. (b) Prepare a blank table to show the distribution of students of a college according to :

Marks : 6

- I) Faculty : Arts, Commerce and Science
- II) Gender : Male and Female
- III) Year : 2009 and 2010

OR

- (b) Distinguish between Primary and Secondary data.

Marks : 6

P.T.O.



UNIT – 2

Q. No. 2. (a) The following table shows the age distribution of persons in a particular region. Calculate Mean, Median and Mode from the following data.

Marks : 10

Age (years)	No. of Persons
Below 10	02
Below 20	05
Below 30	09
Below 40	12
Below 50	14
Below 60	15
Below 70	19

OR

(a) Explain the various measures of central tendency.

Marks : 10

Q. No. 2. (b) Calculate the missing frequency (number of students) against the class 30 – 40 of the following data, where $\bar{X} = 28$. Marks : 6

Marks	No. of Students
0 – 10	12
10 – 20	18
20 – 30	27
30 – 40	—
40 – 50	17
50 – 60	06

OR

(b) Explain the merits and demerits of mean.

Marks : 6



UNIT – 3

Q. No. 3. (a) Following are the scores of two batsmen, Sachin and Sidhu in a series of innings.

Marks : 10

Sachin	Sidhu
12	47
115	12
06	76
73	42
07	04
19	51
119	37
36	48
84	13
29	0

Find out :

- 1) Who is better scorer ?
- 2) Who is more consistent ?

OR

(a) Define dispersion. Explain the various measures of dispersion. Marks : 10

Q. No. 3. (b) Calculate Karl Pearson's coefficient of skewness from the following data.

Marks : 6

Value	Frequency
6	4
12	7
18	9
24	18
30	15
36	10
42	5

OR

(b) What is Quartile Deviation ? Explain its merits and demerits. Marks : 6



UNIT – 4

- Q. No. 4. (a) 10 Competitions in a beauty contest were ranked by 3 judges in the following. Marks : 10

Judge 1	Judge 2	Judge 3
1	3	6
6	5	4
5	8	9
10	4	8
3	7	1
2	10	2
4	2	3
9	1	10
7	6	5
8	9	7

Use rank correlation coefficient to determine which pair of judges have the nearest approach to common taste in beauty.

OR

- (a) Define correlation. Explain the kinds of correlation. Marks : 10

- Q. No. 4. (b) Estimate the 2 regression equations using the following data. Marks : 6

	X	Y
Mean	25	30
Standard deviation	05	4
and $r = 0.8$		

Estimate the value of X when Y = 20.

OR

- (b) Difference between correlation and regression. Marks : 6



Q. No. 5. (a) Calculate Fisher's Ideal Index from the following data and prove that it satisfies TRT and FRT.

Marks : 10

Commodities	2002		2003	
	Price	Expenditure	Price	Expenditure
A	8	80	10	120
B	10	120	12	96
C	05	40	05	50
D	04	56	03	60
E	20	100	25	150

OR

(a) What is Index Number ? Explain the importance and limitations of Index Number.

Marks : 10

Q. No. 5. (b) Compute Consumer Price Index Number by using the following information.

Marks : 6

Items	Group Index		Group Weight
	2008	2012	
Food	140	210	33
Clothing	220	300	10
Fuel	125	140	05
Housing	150	200	12
Others	135	160	11

OR

(b) Explain the types of Index Number.

Marks : 6