LIBRARY
BMS COLLEGE OF LAW
Bull Temple Road, Basavanagudi,
Bengaluru - 560 019.

6015/7015

III Semester 5 Years B.Com.,LL.B./B.B.A.,LL.B. (Even Sem.) Examination, August/September 2024
BUSINESS STATISTICS

Duration : 3 Hours Max. Marks : 80

Instructions : 1. Figures to the right indicate marks.

2. Answer should be written in English completely.

3. Use simple calculator only.

UNIT – 1

Q. No. 1. a) Define statistics. Explain the characteristics of statistics. Marks : 10

OR

Q. No. 1. a) Present the following data by a percentage bar rectangular diagram. Marks : 10

Items	Family A	Family B
	Income Rs. 4,500 per month	**Income Rs. 3,500 per month**
Food	1,300	1,200
Clothing	800	700
Rent	700	500
Education	300	350
Electricity	400	100
Miscellaneous	600	250
	4,100	**3,100**

P.T.O.

Q. No. 1. b) Explain the limitations of statistics. Marks : 6

OR

Q. No. 1. b) Present the following business statistics results of 2nd B.Com.LL.B. held during December 2016, 2017 and 2018 by means of multiple bars. Marks : 6

Year	1st Class	2nd Class	3rd Class	Failed
Dec. 2016	100	300	400	280
Dec. 2017	120	400	700	300
Dec. 2018	100	500	600	200

UNIT – 2

Q. No. 2. a) Find the geometric mean and harmonic mean from the following distribution. Marks : 10

Marks	0 – 10	10–20	20–30	30–40	40–50	50–60
No. of Students	7	12	4	25	30	22

OR

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

Wages (in Rupees)	No. of Workers
Above 0	80
Above 10	77
Above 20	72
Above 30	65
Above 40	55
Above 50	43
Above 60	28
Above 70	16
Above 80	10
Above 90	8
Above 100	0

Q. No. 2. b) Explain the various measures of central tendency. Marks : 6

OR

Q. No. 2. b) The mean weight of 100 students in a class is 60 kgs. The mean weight of boys in the class is 65 kgs. and that of girls is 55 kgs. Find the number of boys and girls in the class. Marks : 6

UNIT – 3

Q. No. 3. a) Following are the runs scored by batsmen in a cricket match. Find the mean deviation and coefficient of mean deviation from mean and median. Marks : 10

Runs scored	No. of matches
5	16
10	32
15	36
20	44
25	28
30	18
35	12
40	14

OR

Q. No. 3. a) The scores of two batsmen A and B in ten cricket matches is given below. Marks : 10

A	B
63	53
71	19
39	31
10	48
96	10
60	90
14	67
32	62
28	40
48	80

Using coefficient of variation, find whether batsmen A or B is more consistent in scoring.

Q. No. 3. b) You are given $\overline{X}$ = 50, C.V. = 40% and coefficient of skewness = −0.4. You are required to find out standard deviation, mode and median. Marks : 6

OR

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

UNIT – 4

Q. No. 4. a) Calculate correlation coefficient for the following X and Y series : Marks : 10

X	Y
45	56
55	50
56	48
58	60
60	62
65	64
68	65
70	70
75	74
80	82

OR

Q. No. 4. a) From the following data, obtain the two regression equations. Marks : 10

X	1	5	3	2	1	2	7	3
Y	6	1	0	0	1	2	1	5

Q. No. 4. b) Write a note on Spearman's coefficient of rank correlation. Marks : 6

OR

Q. No. 4. b) Obtain the regression equations from the following ; Marks : 6

	X Series	Y Series
Mean	20	25
Variance	4	9

Coefficient of correlation = 0.75.

UNIT – 5

Q. No. 5. a) Using the data given below, calculate price index number for the year 2018 by

(i) Laspeyre's formula

(ii) Paasche's formula and

(iii) Fisher's formula with the year 2009 as base. Marks : 10

Commodity	Price (Rs.)		Quantity (kg.)	
	2009	2018	2009	2018
Rice	90	110	100	130
Wheat	64	85	50	68
Pulses	59	90	70	74
Sugar	48	60	62	83
Ragi	60	65	95	45
Jowar	40	45	08	15
Onion	20	15	20	19
Toor dal	30	29	25	28
Moong dal	42	45	42	38
Soybean	41	80	18	29

OR

Q. No. 5. a) An enquiry into the budgets of the middle class families in Mumbai gave the following information. Marks : 10

Expenses on	Weights (in %)	Price (Rs.)	
		2002	2013
Food	20	300	500
Rent	10	100	200
Clothing	5	40	300
Fuel	3	120	80
Electricity	8	95	220
Vegetables	12	40	98
Refreshments	12	85	100
Miscellaneous expenses	30	500	600

What changes in the cost of living index of 2013 has taken place as compared to 2002 ?

Q. No. 5. b) Construct Fisher's index for the following data and verify whether it satisfies TRT and FRT. Marks : 6

Commodity	Base Year		Current Year	
	Price	Quantity	Price	Quantity
A	12	100	20	112
B	14	120	14	240
C	08	80	12	120
D	20	60	24	40
E	16	120	24	48
F	15	40	30	52

OR

Q. No. 5. b) What is index number ? Explain the advantages of index number. Marks : 6