



Fourth Semester 5 Year B.B.A., LL.B. Examination, December 2013
BUSINESS STATISTICS

Duration : 3 Hours

Max. Marks : 100

- Instructions:** 1. Answer **all 5** Questions Units.
2. **One** essay type and **one** short note question or problem from **each unit** have to be attempted, which is referred as Part **(a)** and **(b)** in **all** the units.
3. Figures to the **right** indicate marks.

UNIT – I

Q. No. 1. (a) Define statistics. Explain its importance and limitations. Marks : 15

OR

Prepare a frequency distribution for the following observation by constructing a class interval of 10 and draw a histogram.

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

(b) Write short notes on methods of collecting the data. Marks : 5

OR

Represent the following distribution of marks frequency polygon and frequency curve.

Marks:	0 – 20	20 – 40	40 – 60	60 – 80
No. of Students :	27	77	30	6

P.T.O.



UNIT – II

Q. No. 2. (a) The following table gives the monthly income of 12 families in a town.

Marks : 15

S. No.	Monthly Income in Rs.
1	280
2	180
3	96
4	98
5	104
6	75
7	80
8	94
9	100
10	75
11	600
12	200

Calculate mean, median, mode, Q_1 and Q_3 for the above data.

OR

Critically evaluate the importance of various measures of central tendency.

(b) Write merits and demerits of mean and median.

Marks : 5

OR

What are the requisites of a good and ideal average ?

UNIT – III

Q. No. 3. (a) Define dispersion. Explain the various measures of dispersion. Marks : 15

OR

A factory produces two types of lamps A and B. Show and compare which of the lamps have more life variability.

Length of life in hours	No. of lamps	No. of lamps
500 – 700	5	4
700 – 900	11	30
900 – 1100	26	12
1100 – 1300	10	8
1300 – 1500	8	6



- (b) What do you mean by quartile deviation mention its merits and demerits.

Marks : 5

OR

Calculate Pearson's coefficient of Skewness for the following data :

Age	No. of Persons
0 – 10	10
10 – 20	12
20 – 30	24
30 – 40	32
40 – 50	28
50 – 60	11
60 – 70	3

UNIT – IV

- Q. No. 4. (a) Define regression. Explain linear and non linear regression. Marks : 15

OR

Calculate the co-efficient of correlation between income and weight from the following data comment on the result.

Income Rs.	Weights lbs
100	120
200	130
300	140
400	150
500	160
600	170

- (b) Calculate two regression equations.

Marks : 5

	X	Y
Mean	20	120
S D (σ)	5	25

Correlation coefficient 0.8

Find Y when x = 25 and x when Y = 150.

OR

What do you mean by regression co-efficient ?



UNIT – V

- Q. No. 5. (a) Calculate Laspeyre's Paasche's and Fisher's index for the following data and test that it satisfies FRT and TRT tests. Marks : 15

Commodities	Base Year		Current Year	
	Price	Quantity	Price	Quantity
A	12	10	20	12
B	4	20	4	24
C	8	12	12	15
D	12	15	24	2

OR

Index numbers are 'specialised averages' discuss. Mention its advantages and purposes.

- (b) Construct cost of living index number by family budget method for the year 1975 taking 1970 as the base year. Marks : 5

Commodity	A	B	C	D	E
Quantity in units 1970	50	100	60	30	40
Price per unit 1970	6	2	4	10	8
Price per unit 1975	10	2	6	12	12

OR

Write short notes on 'weights' in index numbers.
