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Fourth Semester 5 Year B.B.A.,LL.B. Examination, January 2012
BUSINESS STATISTICS

Duration : 3 Hours | Max. Marks : 100

Instructions: 1. Answer **all** the **5** questions.

2. **One** essay type and **one** short note question or problem from each Unit have to be attempted.

UNIT – I

Q. No. I. (a) What are the methods used for graphical representation of data and explain the rules of diagrammatic representation ? Marks : 15

OR

Describe the different methods of collecting data stating briefly their merits and demerits.

(b) Write a short note on Marks : 5

a) Statistical table

b) Classification

OR

Write a short note on Ogive curves.

P.T.O.

UNIT – II

Q. No. 2. (a) Calculate A.M. mode and median for the following data. Marks : 15

Marks	No. of students
More than 30	100
More than 35	92
More than 40	80
More than 45	62
More than 50	40
More than 55	24
More than 60	14
More than 65	06
More than 70	00

OR

What is an average ? Mention different types of averages and state why the arithmetic mean is most commonly used among them.

(b) State the merits and demerits of mode :

OR

Find the G.M. and H.M. Marks : 5

x	:	124	129	134	139	144
f	:	7	17	16	7	3

UNIT – III

Q. No. 3. (a) The following table gives the scores made by two batsman A and B in a series of 10 innings. Marks : 15

Batsman A	:	32	28	47	63	71	39	10	60	96	14
Batsman B	:	19	31	48	53	67	90	10	62	40	80

Find which of the batsman more consistent.

OR

Explain the following :

i) Quartile deviation

ii) Standard deviation.

(b) What are the merits and demerits of range ?

OR

Find mean and standard deviation for the following data : Marks : 5

5, 15, 30, 10, 25, 40, 35, 25, 15, 20, 25.

UNIT – IV

Q. No. 4. (a) Obtain the lines of regression for the following data. Marks : 15

x :	1	2	3	4	5	6	7
y :	9	8	10	12	11	13	14

Obtain an estimate of y which should correspond on the average to x = 6.2.

OR

What is correlation ? Give the properties of Karl Pearson's coefficient of correlation.

(b) If $\Sigma(x - \bar{x})^2 = 88$ $\Sigma (y - \bar{y})^2 = 120$ and $\Sigma(x - \bar{x})(y - \bar{y}) = 93$ find r.

Marks : 5

OR

Write a short note on Regression.

UNIT – V

Q. No. 5. (a) Compute Fisher's index number. Show that it satisfies both Time Reversal Test (TRT) and Factor Reversal Test (FRT). Marks : 15

Item	2002		2004	
	Price	**Quantity**	**Price**	**Quantity**
P	5	6	6	7
Q	7	12	6	13
R	6	15	8	15
S	8	10	8	12

OR

Explain the types of index numbers.

(b) What is cost of living index number ? Marks : 5

OR

Write a short note on :

1) Time reversal test
2) Factor reversal test.

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Fourth Semester 5 Year B.B.A., LL.B. Examination, June/July 2012
BUSINESS STATISTICS

Duration : 3 Hours Max. Marks : 100

Instructions : 1. Answer all the **5** Questions.
2. **One** essay type and **one** short note question or problem from **each unit** have to be attempted.
3. Figures to the right indicate marks.

UNIT – I

Q. No. 1. (a) Define 'Statistics'. Write the functions and limitations of statistics Marks : 15

OR

Prepare a frequency distribution for the following observation and represent as an Histogram.

15	45	40	42	50	60	62	68	70	42
75	75	80	81	25	26	31	32	78	45
31	45	42	43	55	56	78	80	81	62
60	62	58	69	70	45	50	56	72	58
75	62	68	65	60	70	35	37	40	55

(b) Write a short note on classification. Marks : 5

OR

Represent the following distribution of marks bet. :

a) Frequency polygon
b) Frequency curve.

Percentage of marks	No. of students
0 – 10	05
10 – 20	22
20 – 30	42
30 – 40	35
40 – 50	20
50 – 60	10
60 – 70	04
70 – 80	02

P.T.O.

UNIT – II

Q. No. 2. (a) Calculate A. M. Median and Mode of the frequency distribution given below : Marks : 15

Classes	Frequency
130 – 134	05
135 – 139	14
140 – 144	28
145 – 149	24
150 – 154	18
155 – 159	10
160 – 164	01

OR

What do you mean by measure of central tendency ? What are the various measures of central tendency.

(b) Write a note on merits and demerits of mean. Marks : 5

OR

Find the Quartiles :

x –	5	8	10	11	12	15	20	25
f –	0	7	16	25	57	84	96	100

UNIT – III

Q. No. 3. (a) Calculate coefficient of variation of the following two series and show which series is more variables. Marks : 15

Weight in kg	Class A	Class B
0 – 10	1	1
10 – 20	2	2

20 – 30	9	7
30 – 40	8	8
40 – 50	5	7
50 – 60	4	3
60 – 70	1	1

OR

Define dispersion. Explain the various measures of dispersion.

(b) Write a short note on 'Skewness'. Marks : 5

OR

What you mean by Quartile deviation and mention the merits of quartile deviation.

UNIT – IV

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

OR

Calculate coefficient of correlation from the following data by Karl Pearson's method.

X :	3	6	2	0	–1	4	3
Y :	–1	5	1	1	3	0	2

(b) From the following data find likely value of x when y is 103.8 and also calculate two regression equations. Marks : 5

	x	y
Maan	8.4	103
S.D.	1.21	0.4

$r = -0.32$

OR

Write a short note on Rank correlation.

UNIT – V

Q. No. 5. (a) Calculate Fisher's Ideal index number for the following data. Verify that it satisfies time reversal test (TRT) and factor reversal test (FRT) Marks : 15

Commodities	Base Year		Current Year	
	Price	Quantity	Price	Quantity
A	4	20	5	24
B	5	15	3	24
C	2	30	5	35
D	1	50	2	60
E	3	25	4	30

OR

Define an 'Index number' and explain its uses.

(b) What are the uses of cost of living index number. Marks : 5

OR

Write a short note on the term 'weights in index number'.

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Fourth Semester 5 Year B.B.A., LL.B. Examination, June 2011
BUSINESS STATISTICS (Course – III)

Duration : 3 Hours | Max. Marks : 100

Instructions : 1. Answer all the **5** Questions.
2. **One** essay type and **one** short note question or problem from **each unit** have to be attempted.
3. Figures to the **right** indicate marks.

UNIT – I

Q. No. 1. (a) Define Statistics. Explain the sources of secondary data. Marks : 15

OR

Define classification. Explain bases of classification.

(b) Write a short note on ogive curves. Marks : 5

OR

The following data relating to the strength of the Indian Merchant Shipping Fleet gives the (GRT) as on 31st December, for different years

Year :	1961	1966	1971	1975	1976
GRT in '000 :	901	1792	2500	4500	5250

Represent the data by suitable bar diagram.

UNIT – II

Q. No. 2. (a) Explain the properties of a good average. Which average do you think is the best and why ? Marks : 15

OR

Discuss partition values.

P.T.O.

(b) Explain merits and demerits of median. Marks : 5

OR

Eight coins were tossed together and the number of heads (X) resulting was noted. The operation was repeated 256 times and frequency distribution of the number of heads is given below.

No. of Heads (X)	0	1	2	3	4	5	6	7	8
Frequency (f)	1	9	26	59	72	52	29	7	1

Calculate median.

UNIT – III

Q. No. 3. (a) Define range. Explain the merits and demerits of range and uses. Marks : 15

OR

Define dispersion. Explain various measures of dispersion.

(b) Write a short note on 'Skewness'. Marks : 5

OR

Calculate the mean deviation about the mean for the following data.

x :	5	15	25	35	45	55	65
f :	8	12	10	8	3	2	7

UNIT – IV

Q. No. 4. (a) Explain Rank Correlation. Marks : 15

OR

Define regression. Explain linear and non linear regression and lines of regression.

(b) Calculate the co-efficient of correlation from the following data : Marks : 5

X :	7	6	5	4	3	2	1
Y :	18	16	14	12	10	6	8

OR

Obtain the rank correlation co-efficient from the following data :

Marks in statistics :	70	65	71	62	58	69	78	64
Marks in costing :	91	76	65	83	90	64	55	48

UNIT – V

Q. No. 5. (a) Explain the types of index numbers. Marks : 15

OR

Explain the cost of living index number and steps in the construction of cost of living index number.

(b) Explain family budget enquiry. Marks : 5

OR

Construct the cost of living index number from the table given below :

Group	**Index for 1998**	**Expenditure**
1) Food	550	46%
2) Clothing	215	10%
3) Fuel and lighting	220	7%
4) House rent	150	12%
5) Miscellaneous	275	25%