Fourth Semester 5 Year B.B.A.,LL.B. Examination, December 2012

BUSINESS STATISTICS

Duration : 3 Hours   Max. Marks : 100

Instructions : 1. Answer **all** the **5** questions.
2. Non-programmable calculators are allowed.
3. Step wise working expected.

UNIT – I

Q. No. 1. (a) What are the different sources of Data Collection ? Explain
all the primary methods.   Marks : 15

OR

Mention the rules for drafting a good questionnaire.

(b) The following table gives number of people affected by
earthquake for the past five years. Represent the data by
percentage bar diagram.

Year	:	1997	1998	1999	2000	2001
No. of Deaths	:	4000	7000	25,000	12,000	25,000
No. of Injured	:	7500	8500	20,000	18,000	50,000

Marks : 5

OR

Write a short note on histogram.

Unit – II

Q. No. 2. (a) The median and mode of the following hourly wage distribution
are known to be Rs. 33.5 and Rs. 34 respectively. Three
frequency values from the table are however, missing, you
are required to find out those values.

Wages (Rs.)	:	0-10	10-20	20-30	30-40	40-50	50-60	60-70	Total
No. of Persons	:	4	16	?	?	?	6	4	230

Marks : 15

OR

"Each average has its own characteristics. It is difficult to
say which one is the best". Discuss with examples.

P.T.O.

(b) A person bought 40 tables at an average price of Rs. 88 per table. He bought similar 20 tables at an average price of Rs. 106 per table. Find the average price of all the table.

Marks : 5

OR

Mean of 12 values is 128. While calculating this mean, one value which actually was 101 was wrongly read as 110. Find the actual mean of the values.

UNIT – III

Q. No. 3. (a) The following are the marks taken by two students in 10 Exams.

Exams No. :	1	2	3	4	5	6	7	8	9	10
Student A :	31	48	13	51	38	43	50	36	47	82
Student B :	51	5	12	83	37	112	42	18	79	20

(i) Which of the two students is a better marks scorer on an average ?

(ii) Which of them is more consistent ? Marks : 15

OR

Describe the various methods of measuring dispersion along with their respective merits and demerits.

(b) Write short note on standard deviation ? Marks : 5

OR

Write a short note on "Skewness".

UNIT – IV

Q. No. 4. (a) Sugar production in ($0'00$ tonnes) during the years 1998-2004 are given below. Fit a linear trend of the form $y = a + bx$ to the data. Obtain an estimate of sugar production in 2005. and also plot graph for trend values.

Year	: 1998	1999	2000	2001	2002	2003	2004
Sugar Production ($000's$ tonnes) :	58	60	70	77	85	56	50

Marks : 15

OR

What is scatter diagram ? When you try to find the relationship between dependent and independent variable, what are the various types of relationships that could exist ? Show the same through diagram.

(b) Calculate the coefficient of correlation from the following data :

x	:	8	7	6	5	4	3	2
y	:	19	17	15	13	11	7	9

OR

Obtain the rank correlation co-efficient from the following data :   Marks : 5

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 Number.   Marks : 15

OR

Calculate Fisher's index number and show that it satisfies TRT and FRT.

	1990			1992	
Items	Price	Quantity		Price	Quantity
A	5	20		10	15
B	6	25		8	24
C	8	15		10	14
D	10	13		20	6

(b) Compute the consumer price index number using the following group indices and the group weights.

Group	Group index	Group weight
Food	200	20
House rent	250	10
Clothing	150	5
Fuel and lighting	250	10
Miscellaneous	200	5

Marks : 5

OR

List the types of Index numbers.

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