# SugentBounty.com Fourth Semester Five Year B.B.A. LL.B. Examination, June 2013 **BUSINESS STATISTICS**

**Duration : 3 Hours** 

Max. Marks: 100

## Instructions: 1. Answer all 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.
- 4. Non-programmable calculator are allowed.
- 5. Step-wise working is **expected**.

# UNIT - 1

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

OR

What is primary data ? Mention and explain the methods of collecting primary data.

(b) Write short notes on classification.

Marks: 5

OR

Represent the following data by percentage bar diagram :

Items of	Expenditure (in Rs.)			
Expenditure	Family A	Family B		
Food	160	100		
Clothing	80	30		
Rent	60	40		
Fuel	20	10		
Others	<u>80</u>	<u>20</u>		
Total	Rs. 400	200		

## UNIT-2

Q. No. 2. (a) Explain briefly the various measures of central tendency.

OR

Compute mean, median and mode for the following data :

Age	No. of Persons
20–25	100
25 – 30	140
30 – 35	200
35–40	360
40-45	300
45 – 50	240
50 – 55	140
55 – 60	120

(b) From the following data find the missing frequency. If the median is 50:

**Class interval :** 10 - 20 20 - 30 30 - 40 40 - 50 50 - 60 60 - 70

2 8 6 15 10 Frequency :

OR

Write the merits and demerits of mean.

#### UNIT-3

Q. No. 3. (a) From the following prices of shares X and Y. State which Marks: 15 share price are more stable :

(Coefficient of Variation)

**X-Rs.:** 55 54 53 53 56 52 68 50 51 49 Y-Rs.: 108 107 105 105 106 107 104 103 104 101 OR

Define dispersion. Mention its characteristics and write the merits and demerits of range and quartile deviation.

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Marks: 5

- -3-
- (b) Write short notes on standard deviation and its mathematical properties.

OR

Calculate quartile deviation for the following data :

Income	No. of Persons
Less than 50	54
50-70	100
70-90	140
90–110	300
110–130	230
130 – 150	125
above 150	51

#### UNIT-4

Q. No. 4. (a) Compute Karl, Pearson's coefficient variation from the following data :

National income (X) Per capita income (Y) OR

Define regression. Explain linear and non-linear regression.

Marks : 15

matical Marks : 5

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StudentBounty.com (b) Calculate coefficient of rank correlation for the data :

X : 48 33 40 9 16 16 65 24 16 57 **Y**: 13 13 24 6 15 4 20 9 6 19 OR

Write a note on rank-correlation.

# UNIT – 5

Q. No. 5. (a) 'Index numbers are economic barometers' critically evaluate the statement.

Marks: 15

OR

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

	Base Year 1990		Current Year 1992	
Items	Price	Quantity	Price	Quantity
А	5	20	10	15
В	6	25	8	24
С	8	15	10	14
D	10	13	20	6

Marks:5

OR

Write short notes on cost of living index numbers.

(b) Explain the steps in constructing of index numbers.