



22  
II Semester B.Com. Examination, May/June 2014  
(Repeaters) (Prior to 2011-12)  
**COMMERCE**  
**Business Statistics**

Time : 3 Hours

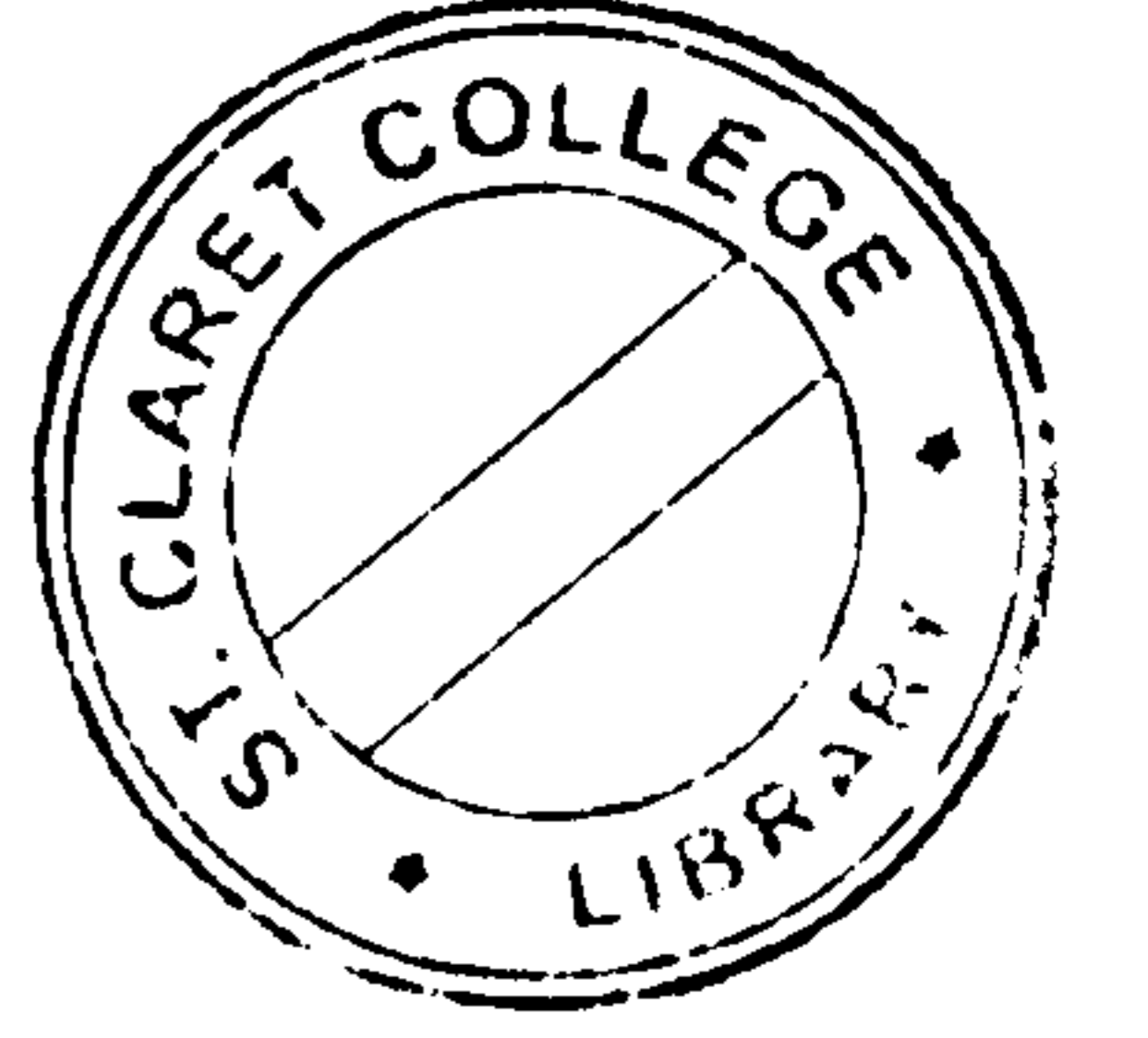
Max. Marks : 90

**Instruction :** Answers should be written **fully** in **English** or in **Kannada**.

SECTION – A

Answer **any ten** sub-questions from the following. **Each** sub-question carries **2** marks.  
(2×10=20)

1. a) Define Statistics.
- b) Mention four functions of statistics.
- c) What are requisite of good average ?
- d) Given Mean = 202 and Median = 221. Find Mode.
- e) Mention the types of averages.
- f) If  $b_{xy} = 0.8$  and  $b_{yx} = 0.6$  find 'r'.
- g) How range is calculated ?
- h) What is a questionnaire ?
- i) Give the formula of FRT.
- j) What is current year ?
- k) If C.V. = 21.43 and Variance = 144 find  $\bar{X}$ .
- l) What do you mean by correlation ?



SECTION – B

Answer **any 5** questions. **Each** carries **5** marks.

(5×5=25)

2. Find the Mean from the following :

<b>Marks below</b>	:	10	20	30	40	50	60	70
<b>No. of Students</b>	:	18	35	58	73	80	96	100

P.T.O.



3. From the following data calculate Median.

<b>Mid values</b>	:	10	20	30	40	50	60
<b>Frequency</b>	:	5	10	25	20	15	5

4. From the following data compute Q.D. and its coefficient.

**Marks** : 20 25 30 35 40 45 50 55 60 65 75

5. Calculate the Rank Correlation coefficient from the following data.

<b>X</b>	:	46	60	72	62	56	39	52	30
<b>Y</b>	:	62	78	65	70	38	54	60	32

6. Compute standard deviation from the following data :

<b>X</b>	:	3	4	5	6	7	8	9
<b>f</b>	:	9	3	11	14	7	12	4

7. Obtain the two regression equation from the following :

<b>Series</b>	<b>X</b>	<b>Variance</b>
X	20	4
Y	25	9

Coefficient of correlation = 0.75.

8. Calculate missing frequency given Median = 28.

<b>Class interval</b>	:	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50
<b>Frequency</b>	:	5	?	15	16	6

9. Construct the cost living index number by using Family Budget Method.

<b>Items</b>	:	A	B	C	D	E
<b>Qty.</b>	:	50	100	60	30	40
<b>Price 2005</b>	:	6	2	4	10	8
<b>Price 2010</b>	:	10	4	6	12	12



SECTION – C

Answer any three questions. Each carries 15 marks.

(3x15=45)

10. Compute the Mean, Median and Mode from the following :

<b>Mid values</b>	:	115	125	135	145	155	165	175	185
<b>Frequency</b>	:	9	25	48	72	116	60	38	22

11. Two brands of tyres are tested for their life. If consistency is the criterion which brand of tyres would you prefer from following information.

<b>Life in months</b>	:	20 – 25	25 – 30	30 – 35	35 – 40	40 – 45
<b>Tyre X</b>	:	1	22	64	10	3
<b>Tyre Y</b>	:	3	21	74	1	1

12. Compute Karl Pearson's coefficient of correlation.

<b>Supply</b>	:	30	29	29	25	24	25	23	21	18	15
<b>Demand</b>	:	11	12	13	14	15	16	15	17	18	20

13. From following information calculate (a) Two Regression Equation (b) Most probable value of X when Y = 70.

<b>X</b>	:	42	44	58	55	89	98	66	72
<b>Y</b>	:	56	49	53	58	65	76	58	61

14. Compute Fisher's index number and show how it satisfies the TRT and FRT.

Items	Year			
	2005		2009	
	Price	Qty.	Price	Qty.
A	2	100	3	110
B	5	80	10	80
C	4	50	7	45
D	6	10	6	20
E	2	60	4	60