

Seat No.	
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B.Com. (Part - II) (Semester -III) Examination, November - 2016

STATISTICS

BUSINESS STATISTICS (Paper - I)

Sub. Code : 63110

Day and Date : Monday, 21 - 11 - 2016

Total Marks : 50

Time : 03.00 p.m. to 05.00 p.m.

- Instructions :
- 1) Attempt any five from following.
 - 2) Use of calculator is allowed.
 - 3) Figures to the right indicate full marks.
 - 4) Each question is for 10 marks.

- Q1)** a) Define the term with suitable example [5+5]
 i) Discrete variable
 ii) Qualitative variable
 b) The average bonus to be paid to 200 workers was known to be 5000 Rs. Later on each worker decides to contribute 15% of their bonus to the Relief fund. Find new average bonus?

- Q2)** Why arith. mean is called as good measure of central tendency? [10]
 Find value of 'x' from following frequency distribution of arith mean of the same is 4.876

Values	3.2	5.8	7.9	4.5
Frequency	x	(x+2)	(x-3)	(x+6)

- Q3)** What are the different absolute and relative measures of dispersion? [10]
 Which of them is good measure? Why it is called as good measure of dispersion?

Find Std. Deviation and its coefficient for following

No. of wickets	0	1	2	3	4	5
No. of matches	5	15	20	40	12	8

- Q4)** Define correlation. [10]
 Explain the concept of linear and non linear correlation
 Find Karl Pearson's coefficient of correlation for following data and comment on type of correlation.

x	1	2	3	4	5
y	1	4	9	16	25

Q5) What are the equations of regression lines? Give any two examples of dependant and independant variables in real life. [10]

Obtain equations of regression lines from following

$\bar{X} = 65, \bar{Y} = 67, \sigma_x = 2.5, \sigma_y = 3.5$ and $r =$ correlation coefficient between $x \& y = 0.8$ estimate value of Y when $x = 70$

Q6) Explain why sampling technique is better method than census method? [10]
What are the different methods of sampling? Explain any one of them?

Q7) a) What is relation between coefficient of correlation and regression coefficients? Use it to find regression coefficient of X on Y if. [5+5]

i) Correlation coefficient between $X \& Y$ is 0.4

ii) Regression coefficient of Y on X is 1.2

b) If quartile deviation of certain data is 1.3 and coefficient of quartile deviation is 0.4 find value of first and third quartile?



Values	1.2	1.8	2.5	3.2	4.0
Frequencies	2	3	4	5	6

No. of matches	2	3	4	5	6
No. of wins	1	2	3	4	5

x	1	2	3	4	5
y	2	3	4	5	6