SA - 517

Seat No.	

Total No. of Pages : 2

B.B.A. (Part - II) (Semester - III) Examination, May - 2018
STATISTICAL TECHNIQUES FOR BUSINESS (Paper - I)
Sub. Code : 43940

Day and Date : Saturday, 12 - 05 - 2018 **Total Marks : 40**

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

Instructions :
1) **All the questions are compulsory.**
2) **Figures to the right indicate full marks.**
3) **Use of non programmable calculator is allwed.**
4) **Graph paper will be supplied on request.**

Q1) Attempt any two. **[14]**

a) Define the terms : sample and sampling. explain simple random sampling with and without replacement.

b) Define combined S.D. for two groups. The mean and S.D. of 100 items was found to be 65 and 10 respectively. Another group of 50 items with each value equal to 59. Find mean and variance of combined group of 150 items.

c) Explain the term regression.State the regression coefficients. If the regression equations are $3x - y - 5 = 0$ and $4x - 3y = 0$, then find

i) the mean of x and y;

ii) regression coefficients,

iii) Correlation coefficient between x and y.

Q2) Attempt any two ; **[16]**

a) Give in brief the construction of a less than O give curve. Draw a less than ogive curve from the following data and hence determine median.

Age (in years)	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60
No. of Workers	18	32	45	60	50	36	25	14

P.T.O.

b) Distinguish between absolute and relative measure of dispersion. Calculate the M.D. about mean and its coefficient for the following data.

Class	0-4	4-8	8-12	12-16	16-20
Frequency	4	6	8	5	2

c) Define mean and median. Find mean and median from the following observations.

38, 34, 39, 35, 32, 31, 37, 30, 48

d) Interpret, if (i) r = + 1 (ii) r = -1 (iii) r = 0. Obtain karl pearson's coefficient of correlation between x and y using the data given below and comment on your result.

X	3	5	4	6	2
Y	3	4	5	2	6

Q3) Attempt any two **[10]**

a) Write note on rank correlation coefficient

b) The mean salary of 50 workers were Rs. 200. It was latter found that two items 160 and 210 were wrongly taken as 130 and 190. Find correct mean of Salary.

c) Define the term coefficient of variaticn (C.V.)

Calculate C.V. From the following data.

Value	7	8	9	10	11	12	13
Frequency	4	6	9	12	9	6	4

ⓘⓘⓘ