

Seat No.	
----------	--

**B.B.A. (Part - II) (Semester - III) Examination, May - 2017**  
**STATISTICAL TECHNIQUES FOR BUSINESS (Paper - I)**  
**Sub. Code : 43940**

Day and Date : Thursday, 04 - 05 - 2017

Total Marks : 40

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

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

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

- a) Explain Simple random sampling with replacement and without replacement. State advantages of sampling over census method.
- b) Define standard deviation and coefficient of variation.

Calculate S.D. and coefficient of variation for following data.

x	1	2	3	4	5	6	7
f	5	8	12	20	12	8	5

- c) What is Regression. Write equations of both regression lines. Find the equation of regression line Y on X.

X	3	5	6	8	9	11
Y	16	22	10	8	5	4

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

- a) State the requirements of good average. Calculate mean and mode for the following data.

Ages in years	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50 - 60
No. of workers	7	13	20	8	4	2

**P.T.O.**

- b) Define spearman's rank correlation coefficient. Calculate it for the data given below.

Advertisement cost (000 Rs.)	39	52	35	49	60	43	39	49
Sales (lakh Rs.)	19	6	9	20	4	13	24	13

- c) An analysis of monthly wages of workers of two organizations C and D yielded following results.

	C	D
No. of workers	50	60
Average monthly wage	Rs. 60	48
Variances	Rs. 100	144

Obtain average monthly wage and S.D. of wages of all workers in the two organizations taken together. Which organization is more reliable in regard to wages?

- d) Define less than type ogive curve. Draw it for the following data and locate Median.

Class	2-4	4-6	6-8	8-10	10-12
Freq	7	18	27	11	5

3) Attempt any two:

[10]

- Define Quartile deviation and compute it for the following data.  
Values (X) 35, 31, 32, 65, 58, 72, 39.
- What is correlation? Explain positive and negative correlation. Give one example for each.
- Write short note on scope of Statistics in Economics.

