

BharatiVidyapeeth
(Deemed to be University), Pune
School of Distance Education

Assignment No.	01	Name of the Assignment Setter:		Miss PratikshaPatil	
Course:	2018	Class:	F.Y.B.Com	Semester:	II

Subject:	Business Mathematics and Business Statistics-II
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Q.1 Attempt ANY ONE of the following: **(10)**

a) Given the following bivariate data

X	5	3	1	1	1	3	7	2
Y	1	5	1	2	6	0	1	0

Fit the two lines of regression.

i) Find r.

ii) Estimate y when x = 10.

b) Solve the following equations by Cramer's rule:

$$5x + 4y = 11, \quad 2x + 6y = -7.$$

Q.2 Attempt ANY TWO of the following: **(10)**

a) Thirty farmers were asked how many farm workers they hire during a typical harvest season.

Their responses were:

4, 5, 6, 5, 3, 2, 8, 0, 4, 6, 7, 8, 4, 5, 7, 9, 8, 6, 7, 5, 5, 4, 2, 1, 9, 3, 3, 4, 6, 4.

Compute variance and standard deviation.

b) Find correlation coefficient between X and Y given following data:

$$n = 10, \quad \sum x = 9, \quad \sum x^2 = 653, \quad \sum y = 5, \quad \sum y^2 = 595, \quad \sum xy = 534.$$

c) An amount of Rs. 750 becomes Rs. 830 in 4 years at a certain rate of simple interest, If the rate of interest increases by 2 %, what amount will Rs. 750 becomes in 2 years?

d) The population of town is 20,000 and increases every year by 1.8% of the population at the beginning of that year. Find the population after 15 years.

Q.3 Attempt ANY TWO of the following: **(10)**

a) What is scatter diagram? And how it helps in determining type of correlation.

b) Write Merits and demerits of standard deviation.

c) Write the difference between simple interest and compound interest .

d) Define with example: i) Square matrix
ii) Column matrix.