

Roll No.

Total Pages : 4

BBA/M-20

10512

Business Statistics-II

Paper - BBA-210

Time allowed : 3 Hours

Maximum Marks : 80

Note : Attempt five question in all. Q.No. 1 is compulsory

Compulsory Question

1. Explain the followings : 2×8=16

(i) Meaning of correlation

(ii) Unexplained variance

(iii) Mathematical probability

(iv) Complementary events

(v) Random variation

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(vi) Moving average

(vii) Meaning of dependent samples

(viii) Excel functions for mean and standard deviation.

2. Compute correlation between number of schooling years 'S' and wages 'W' from following data and explain its meaning : 16

S	5	6	7	8	9	10	11	12	13	14
W	350	350	400	400	520	600	1000	1500	1000	1200

3. (i) Explain the difference between correlation & regression analysis. 8

- (ii) Show that $r = \sqrt{b_{yx} \cdot b_{xy}}$ 8

where $y = a_1 + b_{yx}x$ and $x = a_2 + b_{xy}y$

What will be the sign of "r" ?

$$\sqrt{b_{yx} \cdot b_{xy}}$$

$$y = a_1 + b_{yx} x \text{ and } 2$$

"r"

Do you observe the presence of trend in this data ?

7. Study the following results and determine whether both samples belong to same population ? 16

D:\

Sample I

$$N_1 = 25$$

$$X_1 = 15.6$$

$$\sigma_1 = 28$$

Sample II

$$N_2 = 29$$

$$X_2 = 14.9$$

$$\sigma_2 = 31$$

8. Discuss the steps involved in MS-Excel to compute the followings for two variables X and Y 16

(i)

(ii) Regression coefficients b and b_1 .

(iii) Estimated $\hat{y} = \hat{a} + \hat{b} X$

(iv) Scatter diagram between Y and X and fitted line for $\hat{y} = \hat{a} + \hat{b} X$

Y

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