ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

SOLUTION OF WORKSHEET-4

SUBJECT – STATISTICS

Term : 1st

Topic - REGRESSION **Class: XII**

Full Marks: 15 **Date:06.05.2020**

Q1. Select the correct alternative of the following questions.

(i) In a scatter diagram there are two points as (10,20) and (15,19), then the correlation coefficient i

Ans: a) 1 **b) -1** c)3 d) none of these

(ii) If the regression equations are perpendicular then the correlation coefficient is

Ans: **a) 0** b) 1 c)-1 d) none of these

(iii) For the equation 2x+ 3y = 12, correlation coefficient is

Ans: a) 0 b) 1 **c) -1** d) none of these

(iv) For regression lines x+ y = 3 and 2x + 4y = 10 then mean of x is

Ans: a) 0 **b) 1** c) 2 d) none of these

(v) For two linearly independent variables the no of regression lines can be obtained, is

Ans: a) 1 b) 2 c)3 **d) none of these**

(vi) The correlation coefficient of x and y is 0.12 and that of y on x is 0.03, then the correlation coefficient is

Ans: **a) 0.06** b) 0.18 c) 0.08 d) none of these

(vii) When two regression lines coincide then the correlation coefficient is

Ans: a) 0 b) 2 c)3 **d) none of these**

(ix) The sum of the regression coefficients is ....?... twice the correlation coefficient

Ans: **a) greater than or equal** b) less than c)equal d) none of these

(x) What is the correlation coefficient between x and 50 – 3.7 x is
Ans: a) 1 **b) -1** c) 0 d) none of these

(xi) When two regression lines are perpendicular then the correlation coefficient is
Ans: **a) 0** b) 1 c) 0.5 d) none of these

(xii) For the regression lines 2x + 3y = 5 and 2x + y = 3, the ratio of sd of x and y is
Ans: a) 1 **b) 3/4** c) -1 d) none of these

(xiii) To find the value of x given y, we use the regression equation
Ans: a) y on x **b) x on y** c) both d) none of these

xiv) For the equation y = 9, the value of the correlation coefficient is
Ans: **a) 0** b) -1 c) 1 d) none of these

xv) The value of the correlation coefficient is zero implies the variables are
Ans; a) always independent b) always dependent
c) nonlinear and independent **d) none of these**

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