ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

SOLUTION OF WORKSHEET-8

SUBJECT – STATISTICS

Term : 1st

Topic - REGRESSION **Class: XII**

Full Marks: 15 **Date:16.05.2020**

Q1. Select the correct alternative of the following questions.

(i) When an unbiased die is rolled once the expected face value is
a) 3 **b) 3.5** c) 4 d) none of these

(ii) If x and X be respectively the ordinates of plotted and estimated values from regression line x on y , then difference of their means is
a) 0 b) 1 c)-1 d) none of these

(iii) In regression line x on y, the coefficient of determination is
a) 0 b) 1r1 **c) r^2** d) none of these

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

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

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

(vii) For the equation x = 6, the value of the correlation coefficient is
a) 0 b) -1 c) 1 d) none of these

(viii) In regression lines x on y , the standard error of estimate of y obtained, is
a) variance of e b) SD of e c)mean of e **d) none of these**

(ix) The correlation coefficient between Y and e is
a) 0 b) 0.5 c) -0.5 d) none of these

(x) If e_i be the difference of the observed and predicted value of x in the scatter diagram while deriving the regression equation x on y, then mean of e is
a) 1 **b) 0** c)-1 d) none of these

(xi) If for a ra ndom variable X, E(X) =0 then all the observations are
a) Positine b) negative **c)a &b both** d) n0ne of these

(xii) If a random variable realises infinite values, then expectation of that random variable must be

a) infinite b) negative c) zero **d)) none of these**

(xiii) If all values of a random variable are equal, then the mean deviation about mean will be equal to

a) that value. b) one **c) zero** d)) none of these

(xiv) For a random variable X, $E|X - E(X)| =$
a) 0 b) 1 c) E(X) d) none of these

(xv) For a radom variable X, $e^{E(\ln X)}$ denotes
a) Variance **b) geometric mean** c) median d) none of these

- **Prepared by**
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