ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

WORKSHEET-3

SUBJECT – STATISTICS

Term : 1st

Topic - REGRESSION **Class: XII**

Full Marks: 15 **Date:05.05.2020**

Q1. Select the correct alternative of the following questions.

(i) In a scatter diagram the number of regression lines exist is
a) 1 b) 2 c)3 d) none of these

(ii) The equation of reression x on y the errors for the points are measured parallel to
a) X axis b) Y axis c)the perpendicular to the line d) none of these

(iii) To derive the exact equation of the regression line yon x from y= a +bx, minimise the total sum of square of errors with respect to
a) x b) y c) a and b d) none of these

(iv) To derive the exact equation of the regression line yon x from y= a + bx, we solve the normal equation to solve the value of
: a) a b) b c) a and b d) none of these

(v) For two uncorrelated variables the no of regression lines can be obtained, is
a) 1 b) 2 c)3 d) none of these

(vi) The correlation coefficient of x and y is 0.12, with respective standard deviations 2 and 3, then the value of regression coefficient of y on x is
a) 0.06 b) 0.18 c) 0.08 d) none of these

(vii) Given two point on the scatter diagram, the number of regression lines can be obtained is
a) 1 b) 2 c)3 d) none of these

(ix) The slope of the regression line yon x is

a) $\frac{1}{b_{yx}}$ b) b_{yx} c) b_{xy} d) none of these

(x) The slope of the regression line x on y is

a) $\frac{1}{b_{xy}}$ b) b_{yx} c) b_{xy} d) none of these

(xi) When two regression lines are perpendicular then the correlation coefficient is

a) 0 b) 1 c) 0.5 d) none of these

(xii) The method of least square gives

a) residual equations b) normal equations

c) exponential equations d) none of these

(xiii) If the sign of correlation coefficient be negative, then the sign of regression coefficient of y on x can be

a) positive b) negative c) both a and b d) none of these

(xiv) The numerical value of two regression coefficients

a) can not be less than IrI b) can not exceed IrI

c) is equal to IrI d) none of these

(xv) In the method of least squares, the principle to minimise

a) sum of errors b) square of errors

c) sum of square of errors d) none of these

- **Prepared by**
Sanjay Bhattacharya