

Regression Analysis

Regression Coefficient (AIM -1)

<p>Que 1. (MTP-23)</p>	<p>In a bivariate data $\sum X = 30$, $\sum Y = 40$, $\sum X^2 = 196$, $\sum XY = 850$ and $N = 10$. The regression coefficient of Y on X is:</p> <p>(a) -5.31 (b) -8.23 (c) 6.89 (d) None</p>	
<p>Que 2. (MTP-24)</p>	<p>If Y is dependent variable and X is independent variable and the S.D of X and Y are 5 and 8 respectively and Co-efficient of correlation between X and Y is 0.8. Find the Regression co-efficient of Y on X.</p> <p>(a) 0.78 (b) 1.28 (c) 6.8 (d) 0.32</p>	
<p>Que 3. (MTP-19)</p>	<p>If the regression coefficient of y on x is 2.5, the correlation coefficient 0.6 and the SD of y is 4, the SD of x is</p> <p>(a) 0.64 (b) 0.24 (c) 0.96 (d) 1.44</p>	
<p>Que 4. (MTP-22)</p>	<p>For a positive and perfectly correlated random variables, one of the regression coefficients is 1.4 and the standard deviation of X is 2, the variance of Y is</p> <p>(a) 2.37 (b) 6.76 (c) 6.56 (d) 3.16</p>	
<p>Que 5. (MTP-22)</p>	<p>If the regression line of Y on X is given by $Y = X + 2$ and Karl Pearson's coefficient of correlation is 0.5 then $\frac{\sigma_y^2}{\sigma_x^2} = \underline{\hspace{2cm}}$.</p> <p>(a) 3 (b) 2 (c) 4 (d) none of these</p>	

Regression Lines (AIM-2)

<p>Que 6. (PYQ-25)</p>	<p>If $r = 0.8$, $b_{yx} = 0.6$, $b_{xy} = 0.5$, $\bar{x} = 5$ and $\bar{y} = 3$, then the regression equation y on x</p> <p>(a) $y = 0.6x - 6.0$ (b) $y = 0.96x - 3.7$ (c) $y = 0.8x$ (d) $y = 0.6x$</p>	
<p>Que 7. (PYQ-23)</p>	<p>For variables X and Y for a set of four observation, $\sum X = 10$, $\sum Y = 14$, $\sum X^2 = 65$, $\sum Y^2 = 99$ and $\sum XY = 3$, then the regression line on Y on X is:</p> <p>(a) $Y = -0.8X - 5.5$ (b) $Y = 0.8X - 5.5$ (c) $Y = -0.8X + 5.5$ (d) $Y = 0.8X + 5.5$</p>	
<p>Que 8. (PYQ-18)</p>	<p>If the two lines of regression are $x + 2y - 5 = 0$ and $2x + 3y - 8 = 0$, then the regression line of y on x is:</p> <p>(a) $x + 2y - 5 = 0$ (b) $2x + 3y - 8 = 0$ (c) $x + 2y = 0$ (d) $2x + 3y = 0$</p>	

<p>Que 16. (MTP-21)</p>	<p>The regression equation x and y is $3x + 2y = 100$, the value of b_{xy}</p> <p>(a) $-2/3$ (b) $100/3$ (c) $3/2$ (d) $2/3$</p>	
<p>Que 17. (MTP-22)</p>	<p>If $4y - 5x = 15$ is the regression line of y on x and the coefficient of correlation between x and y is 0.75, what is the value of the regression coefficient of x on y?</p> <p>(a) 0.45 (b) 0.9375 (c) 0.6 (d) none of these</p>	
<p>Que 18. (MTP-23)</p>	<p>If $b_{yx} = 0.5$, $b_{xy} = 0.45$ then the value of correlation coefficient is:</p> <p>(a) 0.23 (b) 0.25 (c) 0.39 (d) 0.47</p>	
<p>Que 19. (PYQ-18)</p>	<p>If the two regression lines are $3X = Y$ and $8Y = 6X$, then the value of correlation coefficient is</p> <p>(a) 0.5 (b) -0.5 (c) 0.75 (d) -0.80</p>	
<p>Que 20. (PYQ-23)</p>	<p>If the coefficient of correlation is 0.8 and regression coefficient $b_{xy} = 0.32$ then what is the value of regression coefficient b_{yx}?</p> <p>(a) 2 (b) 1 (c) 0.52 (d) 0.48</p>	