Correlation and Regression Test Solutions

I. Place the number of the appropriate formula, expression, or term next to the appropriate concept.

A. The independent variable __4__

B. The dependent variable __7__

C. Measures the strength in the relationship between two variables __1__

D. The variation of the dependent variable explained by the independent variable __9__

E. The variation of the dependent variable not explained by the independent variable __3__

F. Used when testing the significance of r __5__

G. The regression equation __10__

H. The slope of the regression line __2__

I. Where a regression line crosses the y-axis __8__

J. The standard error of the estimate __6__

1.	r
2.	b
3.	$1 - r^2$
4.	x
5.	$t = \dfrac{r-\rho}{\sqrt{\dfrac{1-r^2}{n-2}}}$
6.	$\sqrt{\dfrac{\sum Y^2 - a(\sum Y) - b(\sum XY)}{n-2}}$
7.	y
8.	a
9.	r^2
10.	$\hat{y}_{\cdot x} = a + bx$

II. Draw the following scatters and place an appropriate value for r in the space provided.

High Positive Correlation
r = .8

Low Negative Correlation
r = -2

Zero Correlation
r = 0

Perfect Positive Correlation
r = 1