

**SOLUTIONS**

- (1) In regression analysis, what is the standard error of estimate? **(C)**
- (2) Which of the following will be biased if the homoscedasticity assumption is violated? **(C)**
- (3) Which of the following outliers would cause a downward bias of the estimated slope? **(C)**
- (4) If you observed all of the variables that affect the dependant variable and included them in a multiple regression model, then what could you say about the SSE? **(A)**
- (5) Suppose X is an independent variable measured in thousands of dollars and Y is the dependent variable measured in years. Which of the following illustrate the concept of regression towards the mean? **(B)**
- (6) Which of the following is closest to the least squares line? **(A)**
- (7) What is the Adjusted  $R^2$ ? **(A)**
- (8) What is 95% confidence interval estimate of the slope coefficient on x? **(B)**
- (9) What is the p-value for the test of “statistical significance” of the coefficient on x? **(D)**
- (10) What is the variance of the variable x? **(D)**
- (11) Suppose a simple regression is estimated where Y is the dependent variable and X is an explanatory variable. Based on observing an  $R^2$  of 0.03, what can you conclude? **(C)**
- (12) What is the estimated slope coefficient? **(D)**
- (13) What is the standard error of the estimated slope coefficient? **(A)**
- (14) Is this regression model statistically significant? **(D)**
- (15) What should we conclude about the relationship between y and x1? **(C)**
- (16) Which is a correct conclusion? **(B)**
- (17) What is the interpretation of the coefficient on height? **(C)**
- (18) At a 5% significance level, what is the rejection region for the test of overall statistical significance of the model of caloric intake? **(A)**