1. In the multiple regression model, the adjusted R2,
   - A) cannot be negative.
   - B) will never be greater than the regression R2.
   - C) equals the square of the correlation coefficient r.
   - D) cannot decrease when an additional explanatory variable is added.
   
   **Correct answer(s): B**

2. Under imperfect multicollinearity
   - A) the OLS estimator cannot be computed.
   - B) two or more of the regressors are highly correlated.
   - C) the OLS estimator is biased even in samples of n > 100.
   - D) the error terms are highly, but not perfectly, correlated.
   
   **Correct answer(s): B**

3. When there are omitted variables in the regression, which are determinants of the dependent variable, then
   - A) you cannot measure the effect of the omitted variable, but the estimator of your included variable(s) is (are) unaffected.
   - B) this has no effect on the estimator of your included variable because the other variable is not included.
   - C) this will always bias the OLS estimator of the included variable.
   - D) the OLS estimator is biased if the omitted variable is correlated with the included variable.
   
   **Correct answer(s): D**

4. Imagine you regressed earnings of individuals on a constant, a binary variable (“Male”) which takes on the value 1 for males and is 0 otherwise, and another binary variable (“Female”) which takes on the value 1 for females and is 0 otherwise. Because females typically earn less than males, you would expect
   - A) the coefficient for Male to have a positive sign, and for Female a negative sign.
   - B) both coefficients to be the same distance from the constant, one above and the other below.
   - C) none of the OLS estimators exist because there is perfect multicollinearity.
   - D) this to yield a difference in means statistic.
   
   **Correct answer(s): C**

5. When you have an omitted variable problem, the assumption that E(ui | Xi) = 0 is violated. This implies that
   - A) the sum of the residuals is no longer zero.
   - B) there is another estimator called weighted least squares, which is BLUE.
6. In the multiple regression model you estimate the effect on $Y_i$ of a unit change in one of the $X_i$ while holding all other regressors constant. This
   A) makes little sense, because in the real world all other variables change.
   B) corresponds to the economic principle of mutatis mutandis.
   C) leaves the formula for the coefficient in the single explanatory variable case unaffected.
   D) corresponds to taking a partial derivative in mathematics.

   **Correct answer(s):** D

7. You have to worry about perfect multicollinearity in the multiple regression model because
   A) many economic variables are perfectly correlated.
   B) the OLS estimator is no longer BLUE.
   C) the OLS estimator cannot be computed in this situation.
   D) in real life, economic variables change together all the time.

   **Correct answer(s):** C

8. The intercept in the multiple regression model
   A) should be excluded if one explanatory variable has negative values.
   B) determines the height of the regression line.
   C) should be excluded because the population regression function does not go through the origin.
   D) is statistically significant if it is larger than 1.96.

   **Correct answer(s):** B

9. In the multiple regression model, the least squares estimator is derived by
   A) minimizing the sum of squared prediction mistakes.
   B) setting the sum of squared errors equal to zero.
   C) minimizing the absolute difference of the residuals.
   D) forcing the smallest distance between the actual and fitted values.

   **Correct answer(s):** A

10. In a multiple regression framework, the slope coefficient on the regressor $X_2i$
    A) takes into account the scale of the error term.
    B) is measured in the units of $Y_i$ divided by units of $X_2i$.
    C) is usually positive.
    D) is larger than the coefficient on $X_1i$.

    **Correct answer(s):** B