1. If the residuals of a regression carried out on a large sample are found to be heteroscedastic, which of the following might be a likely consequence?

(i) The coefficient estimates are biased

(ii) The standard error estimates for the slope coefficients may be too small

(iii) Statistical inferences may be wrong

(a) (i) only

(b) \* (ii) and (iii) only

(c) (i), (ii) and (iii)

(d) (i) and (ii) only

2. If a regression equation contains an irrelevant variable, the parameter estimates will be

1. \* Consistent and unbiased but inefficient
2. Consistent and asymptotically efficient but biased
3. Inconsistent
4. Consistent, unbiased and efficient.

3. Assume that a researcher fits the regression model  where is itself a residual from a regression. If the researcher conducts a test with the null hypothesis  and  and ... and  against the alternative hypothesis  or  or ... or , what type of test is he/she conducting?

(a) Test for heteroscedasticity of order *r*

(b)\* Test for autocorrelation of order *r*

(c) Test for non-normality of order *r*

(d) Test for homoscedasticity of order *r*

4. A process, *xt*, which has a constant mean and variance, and zero autocovariance for all non-zero lags is best described as

(a) \* A white noise process

(b) A covariance stationary process

(c) An autocorrelated process

(d) A moving average process

5. A model where the current value of a variable depends only on the values that the variable took in previous periods plus an error term is called

(a)\* An autoregressive model

(b) An autoregressive moving average model

(c) An autoregressive integrated moving average model

(d) A periodic lag model

6. Suppose that the value of *R*2 for an estimated regression model is exactly one. Which of the following are true?

1. All of the data points must lie exactly on the line
2. All of the residuals must be zero
3. All of the variability of *y* about its mean is explained by the model
4. The fitted line will be horizontal with respect to all of the explanatory variables
5. (ii) and (iv) only
6. (i) and (iii) only
7. \* (i), (ii), and (iii) only

(i), (ii), (iii), and (iv)

7. Assume that a researcher fits the regression model  where is itself the residual from a regression. If the researcher conducts a hypothesis test with the null hypothesis  against the alternative hypothesis , what type of test is (s)he conducting?

(a) Test for heteroscedasticity

(b) Test for homoscedasticity

(c) Test for non-normality

(d) \* Test for autocorrelation

8. What is the most appropriate interpretation of the assumption  concerning the regression disturbance terms?

(a) The errors are nonlinearly independent of one another

(b) The errors are linearly dependent of one another

(c) The covariance of the errors is constant and finite over all its values

(d)\* The errors are linearly independent of one another

9. The assumption of homoscedasticity can be written mathematically as

(a)\* 

(b) 

(c) 

(d) 

10. As a financial analyst you have reached the conclusion that the relationship between Oracle’s stock price (*y*) and dividends paid per share (*x*) is linear. If the slope of the equation is 1.5 and the intercept is 20, what would be the expected stock price if the dividend paid was 5?

(a) 25

(b) 30.50

(c)\* 27.5

(d) 29