Week 9 Assessment

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment.

1) Which of the following is an indicator of a negative autocorrelation; 1 point
   - A cyclical pattern in the residuals
   - An alternating pattern in the residuals
   - Residuals that are all close to zero
   - A complete randomness in the residuals

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - An alternating pattern in the residuals

2) Consider the following AR(1) process with a white noise error term
   \[ y_t = 0.8 + 0.5 y_{t-1} + \varepsilon_t, \quad \varepsilon_t \sim iid(0, \sigma^2) \]
   The unconditional mean of \( y \) will be given by: 1 point
   - 1.3
   - 1.2
   - 1.5
   - Not Defined

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - 1.5

3) The unconditional variance of the AR(1) process given in Q.2 is given by: 1 point
   - \( 2.5\sigma^2 \)
   - \( 1.5\sigma^2 \)
   - \( 1.25\sigma^2 \)
   - \( \sigma^2 \)

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - 1.5\sigma^2

4) Consider the following model
   \[ y_t = \alpha + \beta_1 + u_t \]
   Which of the following best describe the process for \( y_t \)? 1 point
   - A stationary process
   - A unit root process
   - A deterministic trend process
   - A random walk with a drift

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - A deterministic trend process

5) Suppose that a researcher wants to test the structural stability of the following model:
   \[ y_t = \beta_0 + \beta_1 x_{t1} + \beta_2 x_{t2} + u_t \]
   The total sample of 300 observations are exactly split in half for the sub-sample regressions.
   What would be the unrestricted sum of residual squares for this test: 1 point
   - The residual sum of squares from the regression using whole sample
   - The residual sum of squares from the first sub-sample only
   - The residual sum of squares from the second sub-sample only
   - The sum of the residual sum of squares from the first and second sub-sample regressions

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - The sum of the residual sum of squares from the first and second sub-sample regressions

6) Now, suppose that the RSS from first sub-sample, second sub-sample and the whole sample are 81.8, 72.8 and 166.4 respectively in O . 5. 1 point
   What is the value of Chow F statistic: 7.6
   - 7.6
   - 7.2
   - 5.6
   - 6.3

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - 7.6