

**Quiz # 8**  
**Econometrics 06216**

Name \_\_\_\_\_

- Choose the **MOST CORRECT** answer
  - You have 5 minutes to solve out this quiz
1. The Durbin-Watson statistic for the model:  $Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 Y_{t-1} + \varepsilon_t$  is 0.3, you may suggest that:
    - a. Probably there is positive serial correlation.
    - b. **Durbin-Watson test is not reliable for this model.**
    - c. Probably there is negative serial correlation.
    - d. None of the above.
  2.  $\varepsilon_t = \rho\varepsilon_{t-5} + v_t$  indicates:
    - a. First-order autoregressive process.
    - b. **Fifth-order autoregressive process**
    - c. That the disturbances are adjacent.
    - d. None of the above.
  3. In presence of first-order autoregressive disturbances, you can affirm. that:
    - a. **The correlation between not-adjacent disturbances is smaller than the correlation between adjacent disturbances.**
    - b. The Durbin-Watson test becomes inefficient.
    - c. The correlation between adjacent disturbances is always positive.
    - d. None of the above.
  4. In matrix notation, the elements out of the serial correlated variance-covariance matrix's diagonal are:
    - a. Zero.
    - b. **Non zero.**
    - c. Always positive.
    - d. Stochastic.
  5. In presence of serial correlation, hypothesis testing based on regular t-statistics results:
    - a. Ambiguous.
    - b. Non parametric.
    - c. Reliable.
    - d. **Misleading.**
    - e. None of the above.