

24P427

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Name:

Reg.No:

FOURTH SEMESTER M.A. DEGREE EXAMINATION, APRIL 2026

(CBCSS - PG)

(Regular/Supplementary/Improvement)

CC19PECO4E01 - ADVANCED ECONOMETRICS

(Economics)

(2019 Admission onwards)

Time : 3 Hours

Maximum : 30 Weightage

Part A

Answer *all* questions. Each question carries 1/5 weightage.

1. In linear probability model, the
 - (a) regressand is dichotomous
 - (b) regressand is ordinal variable
 - (c) regressor is dichotomous
 - (d) regressors is ordinal variable
2. Models that use censored data is
 - (a) LPM model
 - (b) Logit model
 - (c) Probit model
 - (d) Tobit model
3. A regression model that includes both the current and past values of explanatory variables is called
 - (a) Autoregressive model
 - (b) Distributed lag model
 - (c) Fixed effect model
 - (d) Linear probability model
4. The large-sample test of first-order serial correlation in autoregressive model proposed by Durbin is
 - (a) Durbin-Watson h test
 - (b) Durbin-Watson h test
 - (c) Durbin t test
 - (d) Durbin F test
5. What is the key assumption made when using the Almon approach to estimate a distributed lag model?
 - (a) The dependent variable is stationary
 - (b) The lag coefficients are linear
 - (c) The lag structure is fixed
 - (d) The residuals are normally distributed
6. Dataset where each subject has the same number of observations is called
 - (a) Short panel
 - (b) Long panel
 - (c) Balanced panel
 - (d) Unbalanced panel
7. Which of the following methods is most appropriate for estimation of overidentified SEM?
 - (a) OLS
 - (b) ILS
 - (c) 2SLS
 - (d) GLS
8. In estimating SEM by indirect least square method
 - (a) GLS is applied to the reduced form equation
 - (b) GLS is applied to the structural equation
 - (c) OLS is applied to the reduced form equation
 - (d) OLS is applied to the structural equation

9. Under 2SLS estimation technique, the joint significance of two or more coefficients is tested using
 (a) Students t-test (b) F test (c) Chi square test (d) Modified F test
10. A collection of random variables ordered in time is known as
 (a) Stationary series (b) Stochastic processes (c) Spurious variable (d) Non Stationary series
11. A non stationary time series is one with
 (a) Time varying mean (b) Time varying variance
 (c) Both (a) and (b) (d) Time invariant mean and variance
12. A white noise process is a stochastic process with
 (a) Zero mean (b) Constant variance
 (c) Serially uncorrelated error term (d) All of the above
13. The model in which Y depends on current and previous time period error term is
 (a) Single equation model (b) AR (1) model
 (c) MA (1) model (d) ARMA (1,1) model
14. The methodology used to fit simultaneous equation model where all variables are considered endogenous with no exogenous variable is
 (a) Exponential smoothing method (b) Single equation method
 (c) ARIMA model (d) VAR model
15. The response of the dependent variable in the VAR system to shocks in the error terms is traced by
 (a) Volatility clustering (b) Impulse response function
 (c) Volatility (d) Partial autocorrelation function

(15 × 1/5 = 3 Weightage)

Part B (Very Short Answer Questions)

Answer any **five** questions. Each question carries 1 weightage.

16. Define normit model.
17. Give an example of an autoregressive model.
18. Define intermediate multipliers.
19. What is limited information method and full information method?
20. What is meant by triangular models.
21. Bring out the conditions for a valid instrumental variable.
22. What is meant by an error correction mechanism?
23. Bring out the criticism of VAR modelling.

(5 × 1 = 5 Weightage)

Part C (Short Answer Questions)

Answer any *seven* questions. Each question carries 2 weightage.

24. Briefly explain the nature of qualitative response models.
25. Explain the estimation of autoregressive models.
26. Explain the Durbin h test.
27. Compare the fixed effect least squares dummy variable and within group model.
28. What is meant by simultaneous equation bias?
29. Explain the rules of identification.
30. What is meant by instrument relevance and exogeneity?
31. Explain trend stationary and difference stationary processes in time series analysis.
32. Explain the unit root test of stationarity.
33. Explain volatility clustering and its measurement.

(7 × 2 = 14 Weightage)

Part D (Essay questions)

Answer any *two* questions. Each question carries 4 weightage.

34. Explain adaptive expectations and the stock adjustment models of estimation.
35. Explain the methods of ILS and 2SLS in the estimation of structural equations.
36. Explain non-stationarity and random walk models in time series analysis.
37. Explain the Box–Jenkins methodology of economic forecasting?

(2 × 4 = 8 Weightage)
