

MA ECONOMICS
FOURTH SEMESTER [SPECIAL REPEAT]
ADVANCED ECONOMETRICS
MEC – 405B

**SET
A**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

(Objective)

Marks: 20

Choose the correct answer from the following:

1 × 20 = 20

1. The Partial Adjustment Model considers that the adjustment to the desired stock of capital is
 - a. Quick
 - b. Flexible
 - c. Rigid
 - d. Complete
2. Error Correction Mechanism emphasizes that the disturbances in the model are
 - a. Short run
 - b. Long run
 - c. Persistent
 - d. Self cumulative
3. The intercept of each entity is not affected by time in case of which model?
 - a. Pooled OLS
 - b. Fixed effects
 - c. Random effects
 - d. Logit
4. The situation of hit or miss is encountered in the method of
 - a. Trial and error
 - b. Direct optimization
 - c. Iterative linearization
 - d. All
5. The long run component of a variable is lost when we go for
 - a. Aggregation
 - b. Differentiation
 - c. Differencing
 - d. Integration
6. The method used for the estimation of the Logit model for ungrouped data is
 - a. OLS
 - b. WLS
 - c. Maximum Likelihood
 - d. GLS
7. The parameters can be obtained by solving the normal equations in the method of
 - a. Adaptive expectations
 - b. Partial adjustment
 - c. Instrumental variables
 - d. None
8. The nature of the data is ignored in which model?
 - a. Pooled OLS
 - b. Fixed effect LSDV
 - c. Fixed Effect WG
 - d. Random Effects
9. The presence of unit root in a series implies that the series is
 - a. Stationary
 - b. Non stationary
 - c. AR
 - d. MR

10. The heterogeneous character of the data is eliminated in case of which model?
 - a. Constant coefficients
 - b. Fixed Effect LSDV
 - c. Fixed Effects WG
 - d. All
11. The relationship among the error terms in a model is called
 - a. Autocorrelation
 - b. Multicollinearity
 - c. Non- Autocorrelation
 - d. None
12. The explanation of the Box Jenkins Methodology is primarily based on the
 - a. Endogenous variable
 - b. Exogenous variable
 - c. Proxy variable
 - d. Parameters
13. The Granger causality between autonomous investment and income in an economy is
 - a. Unidirectional
 - b. Bi-directional
 - c. No causality
 - d. Indeterminate
14. Which of the following is not a characteristic of a weakly stationary series?
 - a. Constant mean
 - b. Constant variance
 - c. Constant moments
 - d. Time invariance
15. The actual stock of capital is equal to the desired stock of capital if the coefficient of adjustment is
 - a. 0
 - b. 1
 - c. Positive
 - d. Negative
16. When the number of observations for each entity is different, it is called
 - a. Short panel
 - b. Long panel
 - c. Balanced panel
 - d. Unbalanced panel
17. Sequential procedure is followed in which type of estimation?
 - a. Koyck
 - b. Ad hoc
 - c. Linear
 - d. Non linear
18. The approach to represent the knowledge ignorance of the dummy variables through the disturbance term is followed by the
 - a. Logit Model
 - b. Probit Model
 - c. Random Effects Model
 - d. Fixed Effects Model
19. The maximum limit of the rate of decline in the Koyck model is
 - a. α
 - b. 1
 - c. 2
 - d. 4
20. We use e_i as an estimate of u_i when u_i is not directly
 - a. Observable
 - b. Unobservable
 - c. Biased
 - d. Unbiased

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(Descriptive)

Time : 2 Hr. 30 Mins.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

1. a) The partial adjustment model can be estimated applying OLS. 5+5=10
Discuss.
b) When and how is the Durbin h test applied?
2. a) Discuss the alternatives to the Linear Probability model. 5+5=10
b) Discuss the use of the latent variable in case of the Probit model.
3. a) Formulate an ARMA process of order (2, 3). How can it be made stationary? 5+5=10
b) Explain the unit root process with the help of a suitable example.
4. a) Explain the use of the mean-corrected values in the estimation of a model with its merits. 5+5=10
b) What are the disadvantages encountered in this method?
5. Discuss the approaches for the estimation of autoregressive distributed lag models. 10
6. a) Distinguish between intrinsically linear and intrinsically non linear models. 5+5=10
b) Explain how the Logit Model represents a dichotomous process with its range?
7. a) Discuss the properties of a stationary process. 5+5=10
b) Can the random walk models satisfy the properties of the stationary process?
8. a) What is the Fixed Effects Least Square Dummy Variable model? 2+8=10
b) Show the estimation of a Fixed Effects Least Square Dummy Variable model with 8 subjects and 50 time periods.

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