

1057

M.A (Economics)-4th Semester
MAECO-403 & 404 [Opt. (v)]: Advanced Econometrics
(In all mediums)

Time allowed: 3 Hours

Max. Marks: 80

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting one question from each Unit. Use of Non-Programmable Non-scientific calculator is allowed.

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I. Attempt any ten of the following: -

- (a) What do you mean by misspecification of model?
- (b) Define Encompassing model.
- (c) What do you mean by a dummy variable?
- (d) Differentiate between intercept and slope dummy variables.
- (e) What do you mean by marginal effect at mean under logit estimation framework?
- (f) Define Pseudo- R^2 .
- (g) How Logit model is different from Probit model.
- (h) Explain Tobin's Probit model.
- (i) What do you mean by under identification of model?
- (j) What is the significance of rank condition of identification?
- (k) When ILS, 2SLS and 3SLS produce same results?
- (l) What do you mean by correlogram?
- (m) Differentiate between Dickey Fuller and Augmented Dickey Fuller Regression equations.
- (n) Present a tri-variate VAR in matrix form.
- (o) How will you differentiate pooling techniques with panel data techniques?

(10×2)

UNIT-I

- II. Discuss various consequences of specification error. (15)
- III. Show that how dummy variables can be used to test the structural shift in the parameters of a regression model? (15)

UNIT-II

- IV. Discuss the relationship between Logit and Probit models. Also discuss method to estimate the marginal effects of Probit model. (5+10)
- V. Why do the researcher need Tobit estimation when the dependent variable is a censored variable? What is the difference between censored and truncated variable models? (7+8)

UNIT-III

- VI. Write a suitable just identified model and derive the ILS estimators of structural parameters. (5+10)
- VII. Define 3SLS method of estimating a SEM. Why issue of heteroscedasticity emerges in SEM and use of 3SLS preferred over 2SLS? (8+7)

UNIT-IV

- VIII. What is autocorrelation? How the two concepts autocorrelation and non-stationarity are related? What is the difference between stationary, drift stationary, and trend stationary series? (5+5+5)
- IX. Differentiate between fixed effect and random effect methods of estimating parameters of a panel data regression model. How Hausman test helps to make selection between two models? (10+5)

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