

C 43567

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Name.....

Reg. No.....

FOURTH SEMESTER P.G. DEGREE EXAMINATION, APRIL 2023

(CCSS)

Economics

ECO 4E 04—APPLIED ECONOMETRICS

(2019 Admissions)

Time : Three Hours

Maximum : 80 Marks

Part A (Multiple Choice Questions)*Answer all questions.**Each question carries 1 mark.*

1. Which is a predetermined variable ?
 - (a) Income.
 - (b) Investment.
 - (c) Government expenditure.
 - (d) Consumption.
2. One of the short coming of applying qualitative response model is :
 - (a) Data manipulation.
 - (b) Heteroscedasticity.
 - (c) Specification error.
 - (d) Autocorrelation.
3. In Logit model if L is positive, it means that when the value of the explanatory variables increases, the probability that the event of interest will occur :
 - (a) Increases.
 - (b) Decreases.
 - (c) Remains the same.
 - (d) Can't say.
4. A purely random process is a stationary series with :
 - (a) Zero variance.
 - (b) Zero mean.
 - (c) Positive mean.
 - (d) Zero mean and zero variance.
5. A series that is an example for difference stationary process is :
 - (a) Random walk with drift.
 - (b) Random walk without drift.
 - (c) Both (a) and (b).
 - (d) GDP of a country.

Turn over

6. In practice, most economic time series are :
- (a) Stationary.
 - (b) Non-stationary.
 - (c) Integrated series.
 - (d) None of these.
7. An example of a model usually not derived from any economic theory is :
- (a) Single equation regression model.
 - (b) Simultaneous equation regression model.
 - (c) ARIMA.
 - (d) All the above.
8. Box-Jenkins methodology is popularly known as :
- (a) Autoregressive model.
 - (b) Moving average model.
 - (c) ARIMA model.
 - (d) None of these.
9. Under what condition do we find REM estimators to be more efficient than FEM estimators, assuming all underlying assumptions are satisfied ?
- (a) When N is large and T is small.
 - (b) When N is small and T is large.
 - (c) When N is equal to T
 - (d) Under all conditions.
10. A trend stationary does not possess the following :
- (a) A deterministic mean trend.
 - (b) A stationary stochastic process with mean zero.
 - (c) Forecast intervals have constant width.
 - (d) Uncorrelated innovation process with mean zero.

(10 × 1 = 10 marks)

Part B (Very Short Answer Questions)

*Answer any **five** questions.
Each question carries 2 marks.*

- 11. Define logistic distribution function.
- 12. Define odds ratio.
- 13. Briefly explain simultaneous equation bias.
- 14. Write a short note on error components model.

15. Define panel data.
16. What do you mean by moving average process ?
17. How we can interpret a linear probability model ?
18. Discuss GARCH model.

(5 × 2 = 10 marks)

Part C (Short Essay Questions)

*Answer any **eight** questions.
Each question carries 5 marks.*

19. Distinguish between Logit and Probit models.
20. Explain linear probability model.
21. Distinguish between stationary and non-stationary stochastic processes.
22. Discuss Cointegration.
23. What is Stationarity ? Explain trend stationary process.
24. How demand forecasting is done with the help of econometrics ?
25. Explain the estimation of ARIMA model.
26. What do you mean by vector autoregression model ?
27. Write a short note on estimation of simultaneous equation model.
28. Distinguish between REM and FEM.
29. Briefly discuss about unit root process.
30. Explain Engel curve.

(8 × 5 = 40 marks)

Part D (Essay Questions)

*Answer any **two** questions.
Each question carries 10 marks.*

31. Briefly discuss about the difference between Dickey-Fuller test and Philip Perron test.
32. Explain the alternatives to linear probability model.
33. Discuss the various approaches to economic forecasting.
34. Discuss the measurement of volatility in financial time series.

(2 × 10 = 20 marks)