C 81200 (Pages : 4) Name..............................

Reg. No..............................

FOURTH SEMESTER P.G. DEGREE EXAMINATION, MARCH 2020

(CCSS)

Economics

ECO 4E 03—APPLIED ECONOMETRICS

(2018 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *questions.*
Each question carries 1 *mark.*

Multiple Choice Questions :

1. The statement, 'Econometrics deals with empirical determination of economic law' is given by ————.
   (a) Maddala. (b) Theil.
   (c) Goldberger. (d) Carl Friedrich Gauss.
2. Linearity in Econometrics is ————.
   (a) Linearity in parameter.
   (b) Linearity in Variable.
   (c) Linearity with respect to variables and parameters.
   (d) None of these.
3. The Probability distribution underlying Logit Model is ————.
   (a) Logistic distribution.
   (b) Poison distribution.
   (c) Negative Binomial distribution.
   (d) Multinomial distribution.
4. One of the short coming of applying qualitative response model is ————.
   (a) Data manipulation. (b) Heteroscedasticity.
   (c) Specification error. (d) Auto correlation.
5. Null hypothesis of Engle-Granger test applied to test co-integrated regression represents ————.
   (a) Variables are co-integrated. (b) Variable are not co-integrated.
   (c) Variable are stationary. (d) Variables are not stationary.

Turn over

6. Box-Jenkins methodology involves ———.
   (a) Detection of stationarity.
   (b) Detection of seasonality.
   (c) Detection of autocorrelation.
   (d) All of the above.

7. ARIMA models are based on assumptions that ———.
   (a) The residuals are uncorrelated and normally distributed.
   (b) There is no errors in variables.
   (c) There is no specification bias.
   (d) None of these.

8. The following is not an attribute of ARCH model is :
   (a) ARCH models involve complex and lengthy procedure.
   (b) ARCH models take care of clustered errors.
   (c) ARCH models take care of non-linearities.
   (d) ARCH models take care of changes in the econometrician's ability to forecast.

9. 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. Dickey Pantula test is used to test ———.
   (a) Detection of stationarity.
   (b) Detection of errors in estimation.
   (c) Detection of specification bias .
   (d) None of these.

($10 \times 1 = 10$ marks)

Part B (Very Short Answer Questions)

Answer any **five** *questions.*
Each question carries 2 marks.
Answer in one **or** *two sentences each.*

11. Write a short note on Tobit model.

12. Distinguish between theoretical and applied econometrics.

13. What are the features of a simultaneous equation model ?

14. Distinguish between Trend stationary and Difference stationary.

15. Explain the nature of error component.

16. What do you mean by ANOVA ?

17. How we can interpret a linear probability model ?

18. Define Co-integration.

($5 \times 2 = 10$ marks)

Part C (Short Answer Questions)

Answer any **eight** *questions.*

Each question carries 5 *marks.*

19. What is the procedure of applying error component model ?

20. How seasonal adjustment is made in time series data ?

21. Distinguish between Logit and Probit models.

22. Briefly discuss about limitations of panel data regression.

23. Briefly discuss about unit root process.

24. Distinguish between ARMA and ARIMA.

25. Discuss the features of time series data.

26. How demand forecasting is done with the help of econometrics ?

27. Distinguish between REM and FEM.

28. How we can transform non stationary process in to stationary process ?

29. Trace out the issues in estimating a simultaneous equation model.

30. Briefly discuss about the macroeconomic foundation of econometric modelling.

($8 \times 5 = 40$ marks)

Part D (Essay Type Questions)

Answer any **two** *questions.*

Each question carries 10 *marks.*

31. Write an essay on nature and scope of Econometrics.
32. Briefly discuss about the difference between Dickky Fuller test and Philip Perron test.
33. Explain the features of panel data and how we can estimate panel data regression models.
34. Write an essay on Qualitative Response models.

($2 \times 10 = 20$ marks)