

D 71145

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Name.....

Reg. No.....

THIRD SEMESTER P.G. DEGREE EXAMINATION, NOVEMBER 2019

(CCSS)

Economics

ECO 3C 10—BASIC ECONOMETRICS

(2018 Admissions)

Time : Three Hours

Maximum : 80 Marks

Part A

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

1. Measures representing the population are :

- | | |
|-----------------|----------------|
| (a) Statistics. | (b) Estimates. |
| (c) Parameters. | (d) Variates. |

2. The value of correlation coefficient lies in between :

- | | |
|--------------------|---------------|
| (a) 0 to 1. | (b) - 1 to 0. |
| (c) 0 to infinity. | (d) - 1 to 1. |

3. Sample mean is called :

- | | |
|----------------|--------------------|
| (a) Parameter. | (b) Statistic. |
| (c) Average. | (d) All the above. |

4. Mean of the error term in the econometric model is :

- | | |
|-----------|----------|
| (a) x . | (b) - 1. |
| (c) + 1. | (d) 0. |

5. The influence of all left out variables from the econometric model is represented by :

- | | |
|---------------------|------------------------|
| (a) Standard error. | (b) Stochastic error. |
| (c) Sampling error. | (d) Measurement error. |

6. By the Gauss Markov theorem, the parameters estimated are :

- | | |
|---------------|----------------|
| (a) Best. | (b) Linear. |
| (c) Unbiased. | (d) All above. |

Turn over

7. The ratio of standard deviation to the root of sample size is called :
(a) Random error. (b) Sample error.
(c) Standard error. (d) None.
8. When the variance of the error term is not constant, the problem is :
(a) Multicollinearity. (b) Autocorrelation.
(c) Heteroscedasticity. (d) None.
9. 't' test is used for sample which is :
(a) Mixed. (b) Small.
(c) Large. (d) Both small and large.
10. Rejecting a true null hypothesis which is to be accepted leads to :
(a) Type 1 error. (b) Type 2 error.
(c) Both. (d) None.

(10 × 1 = 10 marks)

Part B

Answer any five questions, in one or two sentences each.

Each question has 2 marks.

11. Distinguish between r and r^2 .
12. Define error term.
13. Distinguish between mathematical economics and econometrics ?
14. Distinguish between null and alternative hypotheses.
15. What is serial correlation ?
16. State the Gauss Markov Theorem.
17. Explain ANOVA.
18. Distinguish between double log and semi log econometric models.

(5 × 2 = 10 marks)

Part C

Answer any eight short essays.

Each question carries 5 marks.

19. Explain the reasons for lagged relationships
20. Explain the method of estimating parameters of $Y = a + bX + U$, by OLS method.
21. How do you use estimated model for prediction ?
22. Explain t test for testing the parameters of $Y = a + bX + U$
23. Explain the objectives and scope of econometrics.
24. Distinguish between estimates and parameters.
25. State and Prove the BLU properties.
26. State the basic assumptions of simple linear regression model.
27. Explain the consequences of multicollinearity.
28. Estimate the demand function with an example.
29. Illustrate dummy variable trap.
30. What is simultaneous equation bias ? How do you solve this ?

(8 × 5 = 40 marks)

Part D

Answer any two essay questions.

Each question carries 10 marks.

31. Prove the Gauss Markov Theorem in the simple linear regression model.
32. Explain the methodology of econometric research.
33. What is autocorrelation ? How do you detect it ? State the remedial measures.
34. Explain the solution of identification problem by the two stage least squares method.

(2 × 10 = 20 marks)