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MASTER'S DEGREE (C.S.S) EXAMINATION, NOVEMBER 2024
2023 ADMISSIONS REGULAR
SEMESTER III - CORE COURSE ECONOMICS
EC3C12TM20 - Econometrics-I

Time : 3 Hours   **Maximum Weight : 30**

Part A

I. Answer any Eight questions. Each question carries 1 weight   **(8x1=8)**

1. Outline methodology of econometrics.

2. Classical linear regression.

3. How do you estimate a partial regression coefficient?

4. Interpret the following equation

    $E(Y_i| X2_i, X3_i) = \beta1 + \beta2X2_i + \beta3_iX3_i$

5. What are the sources of heteroscedasticity?

6. What will happen when variance is not constant?

7. Define multiplicative form.

8. Panel data regression.

9. Define short run or impact multiplier.

10. Examine partial adjustment model.

Part B

II. Answer any Six questions. Each question carries 2 weight   **(6x2=12)**

11. Explain Gauss Markov Theorem.

12. Explain the importance of testing a hypothesis.

13. Explain specification bias.

14. Outline the F test for multiple regression .

15. Explain the features of homoscedasticity.

16. Examine the theoretical and practical consequences of multicollinearity.

17. Explain SURE models.

18. Explain Granger causality test.

Part C

III. Answer any Two questions. Each question carries 5 weight   **(2x5=10)**

19. Critically examine estimation and testing of hypothesis.

20. Discuss the features of multiple regression analysis using any hypothetical example.

21. If you have monthly data over a number of years, how many dummy variables will you introduce to test the following hypotheses: a) All the 12 months of the year exhibit seasonal patterns. b.) Only February, April, June, August, October, and December exhibit seasonal patterns.

22. For detecting Autocorrelation in Autoregressive Models which test is used ? Explain in Detail.