QP CODE:
H2009

Enrollment Number: .....

Name: .....

M.A. DEGREE EXAMINATIONS, JANUARY 2026
Fourth Semester
M.A. Economics
M23EC11DC – Econometrics
(2023 July admissions)

Time: 3 Hours **Max Marks: 70**

Section A

Answer any ten of the following questions in a word or sentence each. Each question carries 1 mark.

1. Define the term Econometrics.
2. What is meant by Stationarity in time series analysis?
3. Define Multicollinearity.
4. What is meant by the Population Regression Function (PRF)?
5. State the meaning of a log-log regression model.
6. Define Standard Error in the context of OLS.
7. Name two Qualitative Response Models.
8. What is meant by Autocorrelation in econometric analysis?
9. Define Measurement Errors.
10. What is a Dummy Variable?
11. What is an ANCOVA model?
12. Define the Coefficient of determination.
13. Define a Random Walk Model.
14. What is a Unit Root?
15. Define Panel Data.

(1X10=10)

Section B

Answer any five of the following questions in two or three sentences each. Each question carries 2 marks.

16. Distinguish between a Sample Regression Function and a Population Regression Function.
17. Briefly discuss Piecewise Linear Regression
18. State the Gauss-Markov Theorem.
19. Mention two consequences of Multicollinearity.

20. Differentiate between Underfitting and overfitting a model.
21. What is the Dummy Variable Trap?
22. Briefly explain the Linear Probability Model (LPM).
23. Distinguish between Stationarity and Non-Stationarity.
24. Explain the concept of an Integrated Process in time series.
25. What is the main difference between Fixed Effects and Random Effects models?

(2X5=10)

Section C

Answer any five of the following questions in a paragraph each. Each question carries 4 marks.

26. Explain the methodology of econometrics.
27. Briefly explain One-way ANOVA.
28. Explain the remedial measures for Heteroscedasticity.
29. Briefly discuss Unit Root Tests.
30. Explain the estimation of partial regression coefficients in a three-variable model.
31. Differentiate between Logit and Probit models.
32. Explain the ARIMA modelling approach.
33. Discuss the Fixed Effects Approach (LSDV) in panel data regression.

(4X5=20)

Section D

Answer any three of the following questions in two pages each. Each question carries 10 marks.

34. Discuss the nature and sources of data for econometric analysis and explain the contribution of econometric methods to the development of Economics.
35. Explain the functional forms of regression models, specifically detailing log-log, log-lin, lin-log, and reciprocal models.
36. Critically examine Multicollinearity, detailing its nature, consequences, detection, and remedial measures.
37. Elaborate on Model Specification Errors, their consequences, and the concepts of underfitting and overfitting.
38. Explain the use of dummy variables in regression analysis, including their applications in ANOVA and ANCOVA models.
39. Discuss Time Series Analysis with a specific focus on Unit Root tests and Random Walk Models.

(10X3=30)