**ST JOSEPH’S UNIVERSITY, BENGALURU -27**

**M.A. Economics – 4th SEMESTER**

**SEMESTER EXAMINATION: APRIL 2024**

**(Examination conducted in May / June 2024)**

**EC 0121: Advanced Econometrics**

**(For current batch students only)**

**Time: 2 Hours Max Marks: 50**

**This paper contains 1 printed pages and 3 parts**

**PART-A Answer any five questions (2 marks each) 2 x 5 = 10**

1. Give the specification of an ADL(1,1) model.
2. What method is used to estimate the Logit or Probit model?
3. What is the difference between ACF and PACF?
4. What two conditions must an instrument variable (IV) satisfy?
5. What is the unit root test?
6. Describe the Hausman test.
7. What is cointegration?

**PART-B Answer any two questions (5 marks each) 5 x 2 = 10**

1. Discuss the Error-Correction model.
2. Describe the Box-Jenkins methods of univariate time series analysis.
3. Discuss the fixed effects model.

**PART-C Answer any two questions (15 marks each) 15 x 2 = 30**

1. Discuss the various cases of Granger causality between two time series variables, X and Y and describe the test.
   1. Contrast the Linear Probability model with the Logit model.
   2. What is the intuition behind using a cumulative function in the Logit/probit model?
   3. What is Simultaneous Equation Bias?
   4. State the order condition in simultaneous equation models.
   5. Using supply and demand, explain the idea of identification in econometrics.