STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 86
(For candidates admitted during the academic year 2019–2020 & thereafter)
SUBJECT CODE: 19EC/PC/EC44
M. A. DEGREE EXAMINATION, APRIL 2022
BRANCH III – ECONOMICS
FOURTH SEMESTER

COURSE : CORE
PAPER : ECONOMETRIC METHODS II
TIME : 3 HOURS **MAX. MARKS: 100**

SECTION – A

ANSWER ANY FIVE QUESTIONS. EACH ANSWER NOT TO EXCEED 300 WORDS **(5 X 8 =40)**

1. Use the 'd' statistic to detect for AC in the following series:
   e_t: -2 1.5 2.5 -3 0 3 0.5 -3.5 2 3 -4
2. How are the simultaneous equation models used to analyse a two-way cause and effect relationship? Explain with the help of Keynes theory of income determination.
3. Explain the role of time lags in economics.
4. Discuss the Granger test in testing for causality in economics.
5. Derive the WLS estimators.
6. What are the consequences of multicollinearity in independent variables?
7. What are specification errors? Explain.

SECTION – B

ANSWER ANY THREE QUESTIONS. EACH ANSWER NOT TO EXCEED 1200 WORDS. **(3 x 20 = 60)**

8. $M_t^d = \beta_0 + \beta_1 Y_t + \beta_2 R_t + \beta_3 P_t + U_{1t}$ ---------(1)
   $M_t^s = \alpha_0 + \alpha_1 Y_t + 2_{1t}$ ---------(2)
   (a) Are the demand and supply function identified?
   (b) Derive the reduced form equations.
9. Can OLS estimation method be used to estimate coefficients of simultaneous equation models?
10. Write short notes on
    (a) Autoregressive models (b) Markov stochastic process
    (c) Unit Root test (d) Cointegration test.
11. Prove that the estimators of a general linear model are BLUE stimators.
12. Explain Distributed Lag models.

Eqn.	Y_1	Y_2	Y_3	Y_4	Y_5	X_1	X_2	X_3	X_4
1	1	β_{12}	0	β_{14}	0	Γ_{11}	0	0	Γ_{14}
2	0	1	B_{23}	B_{24}	0	0	Γ_{22}	Γ_{23}	0
3	B_{31}	0	1	B_{34}	B_{35}	0	0	Γ_{33}	Γ_{34}
4	0	B_{42}	0	1	0	Γ_{41}	0	Γ_{43}	0
5	B_{51}	0	0	B_{54}	1	0	Γ_{52}	Γ_{53}	0

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