## STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 86 (For candidates admitted during the academic year 2011 – 12 & thereafter)

### SUBJECT CODE: 11EC/PE/EM44

### M. A. DEGREE EXAMINATION, APRIL 2015 BRANCH III – ECONOMICS FOURTH SEMESTER

COURSE	: ELECTIVE
PAPER	: ECONOMETRICS
TIME	: 3 HOURS

**MAX. MARKS: 100** 

#### **SECTION – A**

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

- 1. What is dummy variable trap? Explain.
- 2. State and explain Gauss-Markov theorem.
- 3. What is simultaneous equation bias?
- 4. Derive the parameters of a simple linear regression model.
- 5. Discuss the logit and probit models.
- 6. Show the simultaneous equations of a simple macro economic model.
- 7. How would you detect the presence of heteroscedasticity?

### SECTION – B

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

- 8. Elucidate the nature of multicollinearity and its detection and remedial measures.
- 9. What are the assumptions of Linear Regression Model?
- 10. Explain the use of simultaneous equation models using a demand supply model.
- 11. Obtain the multiple regression equation and check the goodness of fit:

N	1	2	3	4	5	6	7	8	9	10
Y	20	28	40	45	37	52	54	43	65	56
X <sub>1</sub>	2	3	5	4	3	5	7	6	7	8
X <sub>2</sub>	5	6	6	5	5	7	6	6	7	7

12. Explain the consequences of autocorrelation. How is it detected? What are the measures to solve this problem?