



SRN – 37

M.Com. (Semester – III) Examination, April/May 2018
COO3A1 : ECONOMETRICS FOR FINANCE (OA – 18)

Duration : 3 Hours

Max. Marks : 60

- Instructions :**
- 1) This paper consists of **nine** questions carrying **equal** marks.
 - 2) Question No. **1** consists of **5 compulsory** questions of **2 marks each**.
 - 3) Answer **any 5** questions from question **2, 3, 4, 5, 6, 7, 8** and **9**.
 - 4) **Each** question carries **10** marks. Figures to the **right** indicate marks.

1. Answer the following : (5×2=10)
 - a) What is Coefficient of determination ?
 - b) What is autocorrelation ?
 - c) Write a note on F Test.
 - d) Define AR process and MA process.
 - e) What is Linear Probability Model ?
2. What is Hypothesis Testing ? Explain the process of testing the hypothesis. 10
3. What is Heteroscedasticity ? Discuss the causes and consequences of Heteroscedasticity problem. 10
4. Explain the assumptions of CLRM and discuss the properties of OLS. 10
5. a) Explain Stationarity and Non-Stationarity Process in time series. 5
b) Discuss the Unit Root Tests used in time series. 5
6. Discuss Logit and Probit models. 10
7. a) What is meant by an Error Components Model (ECM) ? How does it differ from FEM ? 5
b) When are panel data regression models inappropriate ? Give examples. 5

P.T.O.



8. Consider the following regression results :

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$$UN_t = 2.7491 + 1.1507D_t - 1.5294V_t - 0.8511(D_t V_t)$$

$$t = (26.896) (3.6288) (-12.5552) (-1.9819) R^2 = 0.9128$$

where UN = unemployment rate (%); V = job vacancy rate (%); D = 1, for period beginning in 1966 -IV = 0, for period before 1966 - IV; t = time, measured in quarters.

- What are your prior expectations about the relationship between the unemployment and vacancy rates ?
 - Holding the job vacancy rate constant, what is the average unemployment rate in the period beginning in the fourth quarter of 1966 ? Is it statistically different from the period before 1966 fourth quarter ? How do you know ?
 - Are the slopes in the pre- and post-1966 fourth quarter statistically different ? How do you know ?
 - Is it safe to conclude from this study that generous unemployment benefits lead to higher unemployment rates ? Does this make economic sense ?
9. Consider the below given output of multiple regression model and make necessary interpretation.

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Dependent Variable : Y

Method : Least Squares

Sample (adjusted) : 1991 - 2014

	Coefficient	Std. Error	t-Statistic	Prob.
Const	38.5969	4.2144	9.158	0.0000
X2	0.00488	0.0049	0.9854	0.3383
X3	-0.6518	0.1744	-3.738	0.0016
X4	0.2432	0.0895	2.716	0.0147
X5	0.1043	0.0706	1.477	0.1580
X6	-0.0711	0.0983	-0.7228	0.4796

Where,

Y	: per capita consumption of chicken, pounds
X2	: real disposable income per capita, \$
X3	: real retail price of chicken per pound, cents
X4	: real retail price of pork per pound, cents
X5	: real retail price of beef per pound, cents
X6	: composite real price of chicken substitutes per pound, cents

R-squared : 0.944292 Durbin-Watson : 1.100559

F(5,17) : 57.63303 P-value(F) : 0.0000.