M.Com. (Semester – III) Examination, April 2016
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) Define Econometrics.

   b) What is Multicollinearity ?

   c) Write a note on F-test.

   d) Write a note on Causality Test.

   e) Write a note on Adjusted R Square.

2. Briefly discuss the assumptions of Classical Linear Regression Model.   10

3. What is Autocorrelation ? Explain the causes of autocorrelation.   10

4. Briefly discuss time series econometrics forecasting methods.   10

5. Briefly discuss the importance of dummy variables in econometrics modelling.   10

6. a) Explain Linear Probability model and its application.   5

   b) Discuss Probit and Tobit Models.   5

7. What is Multiple Regression Analysis ? Discuss the problem of inference in
   multiple regression model.   10

8. Consider the below given output of multiple regression model and make necessary interpretation.   **10**

Dependent Variable : ERMSOFT

Method : Least Squares

Sample (adjusted) : 2001:3 – 2015:2

	Coefficient	Std. Error	t-Statistic	Prob.
Cons	−0.587603	1.457898	−0.403048	0.6873
E	1.489434	0.203276	7.327137	0.0000
P	0.289322	0.500919	0.577583	0.0641
C	−5.58E-05	0.000160	−0.347925	0.7282
I	4.247809	2.977342	1.426712	0.1549
M	−1.161526	0.713974	−1.626847	0.005

R-squared : 0.203545   Durbin-Watson stat : 2.156221

F(4, 11)   : 8.908218   P-value(F)   : 0.0000

Where,

ERMSOFT : Excess Returns of Micro Soft Company

        E : S & P 500 Excess Returns

        P : Industrial Production Index

        C : Consumer Credit

        I : Inflation

        M : Money Supply

9. a) What are the advantages of Panel Data Regression ? Distinguish between Fixed Effects Model and Random Effects Model.   **5**

b) Using the following output, find out the appropriate panel data method and make the necessary interpretation.　　　　5

Dependent variable : C

	Fixed Effects Model	Random Effects Model
CONST	–795511***	– 453713***
Q	2999030***	2047340***
PF	0.601213***	0.976185***

Note : *** indicate coefficients are significant at 1%

The following are the test statistics results

Test	Test Statistic	Probability Value
F Statistics	9.54261	0.0000
Breusch-Pagan LM test Chi-square(1)	3.78697	0.05165
Hausman test Chi-square(2)	32.6307	0.0000

Where, C = Cost of Airline; Q = output (revenue passenger miles), PF = Fuel price.

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