NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
2017_2 EXAMINATION JANUARY/FEBRUARY 2018

COURSE TITLE: INTRODUCTION TO ECONOMETRICS

COURSE CODE: ECO 355
UNITS: 3
TIME ALLOWED: 3 HOURS

INSTRUCTION:ANSWER ANY FOUR (4) QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS

1a**.** Define Econometrics **2.5 marks**

b. State four (4) reasons why econometrics is studied as a separate discipline **8 marks**

c. List the traditional econometrics methodology in chronological order **7 marks**

2a. What are the two broad categories of econometrics? **3 marks**

b. Differentiate between econometric modeling and machine learning **4 marks**

c. Define modern econometrics **4 marks**

d. Define financial econometrics **4 marks**

e. What is event study? **2.5 marks**

3a. Examine the classical linear regression model **4 marks**

b. List the factors that can disturb the estimation of classical linear regression model

10 marks

c.   What is arbitrage price theory?   **3.5 marks**

4a.   List and explain the eight assumptions of classical linear regression model **16 marks**

b.   Explain the coefficient of determination   **1.5 marks**

5a.   List and explain the properties of OLS   **8 marks**

b.   Given $Y_t = 15.94 + 0.25X_t$, interpret accordingly if Y_t is the income level of an individual and X_t is the monthly consumption expenditure.   **4.5 marks**

c.   Interpret the r^2 value of 0.76 for the equation $Y_t = 15.94 + 0.25X_t$ **5 mark**

6a.   Give 5 reasons why the normality assumptions are employed?   **10 marks**

b.   Define hypothesis testing   **4 marks**

c.   Differentiate between null and alternative hypothesis   **3.5 marks**