



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

SUBJECT TITLE: INTRODUCTION ECONOMETRIC II

SUBJECT CODE: ECO 356

TIME ALLOWED: 3 HOURS

**INSTRUCTIONS: ANSWER FOUR (4) QUESTIONS. ALL QUESTIONS CARRY
EQUAL MARKS**

QUESTION 1

State and explain reasons for inclusion of Disturbance Term. **17.5 Marks**

QUESTION 2

Outline the assumptions of the normal linear regression model and discuss the significance of these assumptions. **17.5 Marks**

QUESTION 3

- (a) A random variable X is defined to be the difference between the higher value and the lower Value when two dice are thrown. If they have the same value, X is defined to be 0.

Find the probability distribution for X . **9.5 Marks**

- (b) A random variable X is defined to be the larger of the two values when two dice are thrown, or the value if the values are the same. Find the probability distribution for X .

8 Marks

QUESTION 4

Simple macroeconomic model consists of a consumption function and an income identity:

$$C = \beta_1 + \beta_2 Y + u \quad Y = C + I$$

Where C is aggregate consumption, I is aggregate investment, Y is aggregate income, and u is a disturbance term. On the assumption that I is exogenous, derive the reduced form equations for C and Y . **17.5 Marks**

QUESTION 5

Name and explain ways to alleviate multicollinearity problems. **17.5 Marks**

QUESTION 6

The following earnings functions were fitted separately for males and females (standard errors in parentheses):-

Males $EARNINGS = -3.6121 + 0.7499S + 0.1558ASVABC$

(2.8420) (0.2434) (0.0600)

Females $EARNINGS = -5.9010 + 0.8803S + 0.1088ASVABC$

(2.6315) (0.1910) (0.0577)

Explain why the standard errors of the coefficients of S and $ASVABC$ are greater for the male subsample than for the female subsample, and why the difference in the standard errors are relatively large for S . **17. 5 Marks**

Best Wishes!