



**NATIONAL OPEN UNIVERSITY OF NIGERIA  
FACULTY OF SOCIAL SCIENCES  
DEPARTMENT OF ECONOMICS  
2021\_2 EXAMINATION**

**COURSE TITLE: APPLIED ECONOMETRICS II**

**COURSE CODE: ECO 454**

**UNITS: 2**

**TIME ALLOWED: 2 HOURS**

**INSTRUCTION: ANSWER QUESTION ONE (1) AND ANY OTHER TWO (2) QUESTIONS.**

**QUESTION ONE**

- a) List and explain the stages of econometric research. **(10 marks)**
- b) What are the sources of deviations in parameter model estimation? **(10 marks)**
- c) State the assumption in terms of the relationship between the error term  $U$  and the explanatory variable  $X$ . **(10 marks)**

**QUESTION TWO**

Using mathematical notations, develop a simple econometric model and identify the followings.

- a) Dependent and independent variables
- b) The intercept or constant
- c) The coefficient of the regression model
- d) The error term and what it stands for

**(20 marks)**

**QUESTION THREE**

- a) Explain any three (3) relevance of forecasting in econometric analysis. **(10 marks)**
- b) Given a population regression model  $Y = 46 + 0.6X$ . If the value of the independent variable is 100 units while the value of the intercept decreases by 50%, what is the value of the dependent variable? **(10 marks)**

**QUESTION FOUR**

- a) Explain the concept of instrumental variable **(5 marks)**
- b) State the assumption and properties of instrumental of variable **(15 marks)**