NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
2024_2 EXAMINATION

COURSE TITLE:	**INTRODUCTION TO ECONOMETRICS**
COURSE CODE:	**ECO 356**
CREDIT UNITS:	**3 UNITS**
TIME ALLOWED:	**3 HOURS**
INSTRUCTION:	**ANSWER ANY FOUR QUESTIONS, ALL QUESTION CARRY EQUAL MARKS**

QUESTION ONE
(a) Distinguish between probability sampling technique and non-probability sampling technique
(b) Write short note on the statistical concepts
i. Random variable
ii. Element
iii. Population
(c) What is white noise?

QUESTION TWO
(a) What is an Estimator in regression analysis?
(b) Precise predictions about the unknown model parameters can also be make through satisfactory assumptions. Therefore, state any five (5) of the ten (10) assumptions in CLRM.

QUESTION THREE
(a). Differentiate between random variables and sampling theory.
(b). With detailed examples differentiate between Covariance and Variance.

QUESTION FOUR
(a). The properties of the regression coefficients depend critically on the properties of the disturbance term which indeed satisfy four conditions known as the Gauss–Markov conditions. Briefly discuss these conditions.
(b). Critically discuss the problems caused by multicollinearity in a model.

QUESTION FIVE
(a). Discuss any four (4) of the five (5) reasons why R-squared can be too high in a regression analysis result.
(b). Discuss two (2) Ways to resolve multicollinearity problems.