NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
2025_1 EXAMINATION

SUBJECT TITLE: INTRODUCTION TO ECONOMETRICS II
SUBJECT CODE: ECO 355
TIME ALLOWED: 3 HOURS
INSTRUCTIONS: ANSWER QUESTIONS ONE AND ANY OTHER THREE QUESTIONS.

QUESTION 1

(a). Econometrics applies economic theory, mathematics, and statistical inference to analyze economic phenomena. Do you agree with this perspective? Provide a detailed discussion. (10 marks)
(b). Why is econometrics considered a distinct discipline? (5 marks)
(c). Given the multiple regression model: GDP = 0.221 + 8.219IMP – 23.120EXP – 4.881GCF with t-statistics for IMP = 1.673, EXP = 1.271, GCF = 4.816:
(i). Interpret the multiple regression model in detail. (5 marks)
(ii). Evaluate each parameter: import, export, and gross capital formation using their t-statistics. (5 marks)
(25marks)

QUESTION 2
List and explain five traditional econometric methodologies. (15 marks)

QUESTION 3

(i). Why is econometrics important in economics? (7 marks)
(ii). Differentiate between regression analysis and correlation analysis. (8 marks)
(15marks)

QUESTION 4

(i). Explain the Method of Maximum Likelihood. (7 marks)

(ii). Describe the Theory of Hypothesis Testing. (8 marks)

(15marks)

QUESTION 5

Provide a brief overview of the following:

(i). Normality Tests. (5 marks)

(ii). Normal Probability Plot. (5 marks)

(iii). Histogram of Residuals. (5 marks)