



NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
2022_1 EXAMINATION

COURSE TITLE: APPLIED ECONOMETRICS II
COURSE CODE: ECO454
UNIT: 2 UNITS
TIME ALLOWED: 2 HOURS
INSTRUCTIONS: ANSWER ANY THREE QUESTIONS.

- 1a. Orderly identify and explain the stages in applied econometrics. **(12 Marks)**
b. Given the following linear equation; $Y = \alpha + \beta X$ determine the slope and the intercept; **(11 marks)**
2. The unobserved variables in an econometric modeling are known as Stochastic Error Term (U).
a. What is the implication of this error term on the model estimation? **(4 marks)**
b. What are the basic assumptions in relation to stochastic error term (U) and the explanatory variables (X)? **(15 marks)**
2c. Describe what is meant by Econometric Model **(4 marks)**
- 3a. Discuss the extent to which “Goodness of Fit” measures the extent of reliability of an econometric model. **(8 marks)**
3b. Discuss the basic properties upon which the goodness of econometric model is determined. **(15 marks)**
4. Given the following E-view output of a hypothetical economy. Clearly interpret the result and give economic implication where applicable.

Dependent Variable: ECG
Method: Least Squares
Date: 06/02/21 Time: 01:32
Sample: 1980 2020
Included observations: 41

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.45219	1.961640	8.896736	0.0213
INFR	10.18223	0.321415	-2.770380	0.0594
INFRAS	12.03587	1.073215	2.322803	0.0256
R-squared	0.981695	Mean dependent var		10.83421
Adjusted R-squared	0.977775	S.D. dependent var		0.873214
S.E. of regression	1.636261	Akaike info criterion		3.078123
Sum squared resid	10.54007	Schwarz criterion		2.342208
Log likelihood	-22.4934	Hannan-Quinn criter.		3.172456
F-statistic	2.234156	Durbin-Watson stat		1.324156
Prob(F-statistic)	0.000407			

Note ECG, is the Economic Growth Rate INFR is Inflation rate level in Nigeria ; INFRAS is the current level of infrastructural Expenditure in Nigeria. **(23 Marks)**