



NATIONAL OPEN UNIVERSITY OF NIGERIA
University Village, Nnamdi Azikiwe Expressway, Plot 91, Cadastral Zone, Jabi, Abuja
Faculty of Agricultural Sciences, Dept. of Agricultural Economics and Extension,
Pop Examination Questions, September, 2020

COURSE CODE: AEA 505

COURSE TITLE: Econometrics

Credit Unit: 3

Total Score: 70 marks

INSTRUCTION: Answer compulsory question 1 (30 marks) and any four questions (10 marks each).

Time Allowed: 2 ½ hours.

1a. Copy and complete the table below for variables X and Y (10marks).

| S/N | X | Y | (X – Y) | (X – Y) ² | XY |
|-----|-------------------|--------------------|---------------------------|---------------------------|-------------------|
| 1 | 3 | 5 | i. = | vi = | xi = |
| 2 | 4 | 6 | ii = | vii = | xii = |
| 3 | 5 | 7 | iii = | viii = | xiii = |
| 4 | 6 | 8 | iv = | ix = | xiv = |
| 5 | 7 | 9 | v. = | x. = | xv = |
| | xvi. = $\sum X =$ | xvii. = $\sum Y =$ | xviii. = $\sum (X - Y) =$ | xix. = $\sum (X - Y)^2 =$ | xx. = $\sum XY =$ |

b. Describe the three basic components of econometrics (6 marks).

c. With the aid of a mathematical expression, explain the difference between dependent and independent variables (5 marks).

d. Discuss any five stochastic assumptions of the Ordinary Least Square (OLS) (5 marks).

e. Outline any two effects of autocorrelation (4 marks).

2a. Describe any four causative factors of multicollinearity (4 marks).

b. Explain the three terminologies used in Analysis Of Variance (ANOVA) (6 marks).

3a. Explain the concept of hypothesis testing (5marks).

b. Mention any five methods of collecting primary data (5 marks).

4a. Describe the three importance of econometrics (6 marks).

b. Define and give a popular example of null hypothesis (4 marks).

5a. Use an implicit form of expression to explain what you understand by multiple regression analysis (5 marks).

b. Mention any five causative factors of autocorrelation (5 marks).

6a. State any five assumptions concerning the independent variables (5 marks).

b. List any five uses of ANOVA (5 marks).

7a. Describe any five steps involved in hypothesis testing (5 marks).

b. State the remedy for heteroscedasticity (5 marks).