



NATIONAL OPEN UNIVERSITY OF NIGERIA
Department of Agricultural Economics and Extension
FACULTY OF AGRICULTURAL SCIENCES
2025_2 EXAMINATIONS

Programme: Agricultural Economics and Extension

Course Title: Statistics and Research Methods

Course code: AEA501

Credit Unit: 3

Time Allowed: 3 Hours

INSTRUCTION: Answer Compulsory question 1 (25 marks) and 3 questions (15marks).

Question 1

- a. Define Statistics
- b. Briefly mention three (3) roles of statistics in our present-day life
- c. In how many ways can 10 students be seated if 8 seats are available
- d. What is frequency polygon
- e. Vividly describe Bar chart and Pie Chart
- f. Differentiate between Relative frequency and Cumulative frequency
- g. Define the terms in words only: Arithmetic mean, Mode and Median

Question 2

- a. Mention the types of statistics that exist
- b. Differentiate between the types of statistics mentioned in 2a
- c. Define Geometric mean
- d. Mention four (4) properties of a normal distribution
- e. State three (3) different roles of statistics to man

Question 3

- a. Define class interval and class limits
- b. State four (4) reasons why sampling of respondents is necessary in research
- c. Mention two (2) main types of sampling
- d. Define the word "hypothesis" and state how many types of hypothesis we have
- e. What is Regression analysis?

Question 4

- a. Define Measures of Central Tendency
- b. Define frequency distribution
- c. Assume a set of numbers was given as 1, 3, 5, 7, 7, 7, 3, 4, 5, 3, 4, 7, 10, 9, 10, 8, 9, 7, 3 and 4 (n = 20)

Using appropriate Statistical method, Find;

- (i) The Arithmetic mean of the set of numbers
- (ii) The Median of the set of numbers
- (iii) The mode of the set of numbers

Question 5

- a. From a set of numbers given as: 1, 3, 5, 7, 7, 7, 3, 4, 5, 3, 4, 7, 10, 9, 10, 8, 9, 7, 3 and 4 (n=20)
- Find
- i. The Range of the numbers
 - ii. The First, Second, Third and Fourth quartile of the set of numbers
- b. If a die is tossed without bias, what is the probability of;
- i. Either 1 or 2 showing up
 - ii. 1 not showing up
 - iii. 2 showing up