



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**FACULTY OF AGRICULTURAL SCIENCES**  
**DEPARTMENT OF AGRICULTURAL ECONOMICS AND**  
**EXTENSION**

**2021\_POP EXAMINATION**45078

**Programme: Agricultural Extension and Management**

**Course Title: Statistics for Social Research**

**Course code: AEA501**

**Credit Unit: 3**

**Time Allowed: 2 ½ Hours**

**Instruction: Answer Any 4 Questions**

**Question 1**

a 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)

Calculate;

(i) The Arithmetic mean of the set of numbers 5 marks

(ii) The Mode of the set of numbers 3marks

(iii) The Median of the set of numbers 2marks

b Discuss 3 properties of a normal distribution 4.5marks

c Explain 3 reasons why sampling of respondents is necessary in research 3marks

**Question 2**

a Define frequency polygon 2.5marks

- b Explain statistical terms: Mean, Median and Mode 6marks
- c What are the many ways 10 students can be seated if 8 seats are available  
4marks
- d Discuss 2 major ways of classifying Statistics 5marks

### **Question 3**

- a Give the meaning of statistics 3marks
- b Describe Class limits and Class intervals 3marks
- c (i) What do you understand by the term hypothesis 3marks  
(ii) Explain the types of hypotheses 4marks
- D Discuss 3 importance of statistics in present day life 4.5marks

### **Question 4**

- a What is the difference between Relative frequency and cumulative frequency  
4marks
- b Explain the types of statistics 4marks
- c Discuss Measures of Central Tendency 3.5marks
- d Discuss in detail Pie chart and Bar chart 6marks

### **Question 5**

- a Define the following terms:
  - i. Standard deviation 2.5 marks
  - ii. Describe the term Population in statistics 3 marks
- b Explain Frequency distribution 3marks
- c Study the following set of numbers: 1, 3, 5, 7, 7, 7, 3, 4, 5, 3, 4, 7, 10, 9, 10, 8, 9, 7, 3 and 4 (n=20)  
Use the numbers to find:
  - i The First, Second, Third and Fourth quartile of the set of numbers 6marks
  - ii The Range of the numbers 3 marks