



**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, 2021 Academic Session*

**Course Title: Statistics and Research Methods in Extension**

**Course Code: AEM 501**

**Credit Unit: 3 Units**

**Total Score: 70 Marks**

**Time Allowed: 3 Hrs**

**INSTRUCTION: Answer Four (4). All Questions Carry Equal Marks**

### **QUESTION ONE**

- As a researcher, explain three (3) major concerns of research (4 ½ mks)
- A research student wishes to present his/her information or data on a table. Advance four (4) rules that must be followed or obeyed to have a good work done (4 mks)
- It was observed that the students that sat for a given examination were;  
48, 14, 20, 16, 21, 60, 48, 59, 60, 60 and 48.  
Present the given numbers in a tabular form and then solve for;
  - The mean of the student that sat for the examination. (5 mks)
  - The median of the students that sat for the examination. (2 mks)
  - Define and solve for the mode of the students that sat for the examination. (2 mks)

### **QUESTION TWO**

- Describe a Histogram (2 mks)
- What is Research? (5 mks)
- Report writing is a compulsory component of every research process. Succinctly explain what is expected in report writing (6 mks)
- Data used in research are of different types and this is irrespective of the type of research. As a researcher advance any four (4) types of data you may need to carry out the research (4 ½ mks)

### **QUESTION THREE**

- Write short notes on Historical Research (3 mks)
- Students that sat for a given examination respectively had the following scores on the following subjects; Maths 48, English 50, Physics 60, Biology 72, Chemistry 56 and Economics 40. Use the above scores to produce a pie-chart. (Do your calculation in degrees) (6 ½ mks)
- Errors that emanate in research are related to the hypothesis accepted or rejected. Mention and explain the types of errors that can occur during research (4 mks)
- A researcher is compulsorily entitled to the use of data. Explain primary and secondary data needed by the researcher. (4 mks)

### **QUESTION FOUR**

- a. Every research problem is identified by certain characteristics. Briefly explain any four (4). (6 mks)
- b. Find the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quartiles from the set of numbers given as 48, 14, 20, 16, 21, 60, 48, 59, 60, 60 and 48 (4 mks)
- c. There are different factors that are needed to be taken into consideration when a potential researcher is out to choose a good research problem. Explain in details any five (5) of those factors (7 ½ mks)

**QUESTION FIVE**

- a. Define the term 'variables' and identify four (4) types of variables that can be used in research (5 ½ mks)
- b. Analyze three (3) techniques a good researcher can adopt when dealing with problem of inadequate response when extracting information from his/her respondents. (6 mks)
- c. Find the Range from the set of numbers given as; 48, 14, 20, 16, 21, 60, 48, 59, 60, 60 and 48 (2 mks)
- d. Using two (2) instances, explain the difference between qualitative research and quantitative research (4 mks)