



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*¹²³⁴⁵

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 Questions Only

QUESTION ONE

- In one sentence, what is the goal of social research? (2 ½ mks)
- Action research is basically aimed at solving problems. Enumerate the five (5) steps involved in basic research. (5 mks)
- A research student of crop science took the height of plants under experiment and observed them as follows: 4, 6, 8, 10, 10, 8, 8, 8, 6, 8 and 4.
Taking the place of the researcher, and using tables, find the
 - The mean height of the crops. (5 mk)
 - The median height of the crops. (2 mks)
 - Define and solve for the mode of the height of the crops. (3 mks)

QUESTION TWO

- Write short notes on Descriptive Research (3 ½ mks)
- Briefly discuss the following sampling procedures:
 - Simple random sampling (4 mks)
 - Stratified random sampling (3 mks)
- A researcher of crop science took the height of different crops under investigation and found the height of the crops to be as shown below; (7 mks)

Crops	Maize	Ground nut	Soya bean	Sugar cane	Guinea corn	Millet
Height of crops (cm)	12	4	6	18	21	14

Use the information above to produce a pie-chart for the crops (use degrees in your calculations)

QUESTION THREE

- Explain the term 'Research' (5 ½ mks)
- Explain Research Design and what it involves (6 mks)
- As far as research is concerned, the setting and use of hypothesis is very vital. State four (4)

functions provided by hypothesis in this regard. (6 mks)

QUESTION FOUR

- a. As a research, there is a need to be careful in selecting, choosing and accepting his/her hypothesis in order to guide against occurrence of errors. Mention and briefly expatiate on the types of errors that could occur in research (5 mks)
- b. Elaborately describe what cross-cultural research is. (4 mks)
- c. From the set of numbers given as: 4, 6, 8, 10, 10, 8, 8, 8, 6, 8 and 4. Find the 1st, 2nd, 3rd, and 4th quartile. (4 ½ mks)
- d. As far as research is concerned the use of data cannot be overemphasized. Write short notes on primary and secondary data. (4 mks)

QUESTION FIVE

- a. Assume a set of numbers was given as: 4, 6, 8, 10, 10, 8, 8, 8, 6, 8 and 4. Find the Range. (3 ½ mks)
- b. Producing a good bar chart would require some necessary information or tips. State four (4) of those tips. (4 mks)
- c. State measures of dispersion, and give four (4) examples in which it can be expressed (4 mks)
- d. As a researcher, explain any four (4) major factors that are needed to be considered in choosing a good research problem. (6 mks)