



Africa University

College of Health Agriculture and Natural Science

MAIN PAPER

COURSE: RESEARCH METHODS

CODE: NACP204

DATE: APRIL 2024

LECTURER: Dr. S. CHAKEREDZA

DURATION: THREE (3) HOURS

INSTRUCTIONS TO CANDIDATES

INSTRUCTION

Answer All Questions from Section A

And Answer Three Questions from Section B

SECTION A: Answer ALL questions.

Question 1

For the following:

1. Define the term Research Methods [3]
2. Define sample [2]
3. What is research and its notable characteristics [5]
4. What is statistics and its use [6]
5. What is Quantitative variable [2]
6. What is Qualitative variable [2]
7. Define continuous variable [2]
8. Define inferential statistics [2]

SECTION B: Answer any three questions

1. Discuss the concept of randomization, replication and blocking as it affects the conduct of an experiment and why these are important [20]
2. Answer the following sections as one question
 - a. What is variable? [4]
 - b. What do you understand by the term range [4]
 - c. What is standard deviation and how do you calculate it [4]
 - d. What is sample size [4]
 - e. What do you understand by the term parameter [4]
3. Answer the following as one question:
 - a. Write four main components of research proposal [5]

- b. When do we resort to the use of questionnaire as research instrument? [5]
- c. Explain the two types of Questionnaire format briefly [5]
- d. Highlight the possible pitfalls in questionnaire construction [5]
- 4. Using the following data set
 - a. A national random sample 29, 26, 13, 23, 23, 25, 17, 22, 17, 19, 12, 26, 30, 30, 18, 14, 12, 26, 17.
 - b. Calculate the sample mean, median, variance and standard deviation [20]
- 5. Describe the complete randomized design (CRD) and randomized complete block design (RCBD) and for each suitable cases for its use [20]

END OF QUESTION PAPER!!!