

CHUKA



UNIVERSITY

**UNIVERSITY EXAMINATIONS**

**THIRD YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF  
SCIENCE IN MATHEMATICS**

**MATH 390: RESEARCH METHODOLOGY**

**STREAMS:**

**TIME: 2 HOURS**

**DAY/DATE: WEDNESDAY 19/04/2023**

**8.30 A.M – 10.30 A.M**

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**INSTRUCTIONS:**

**Answer question one and any other two questions**

**Adhere to the instructions on the answer booklet.**

**QUESTION ONE Compulsory.**

- a. Define the term research and state its main purpose [2marks]
- b. Define the term abstract and state the main parts of an abstract in a report [5marks]
- c. Explain the main characteristics of well-written objectives [5marks]
- d. Explain the difference between a bibliography and a reference and state at least four referencing styles [5marks]
- e. Define the term survey and explain the two main methods of conducting survey [3marks]
- f. Differentiate between Quantitative and Qualitative Research hence explain the four main categories of measurement Scales [5marks]
- g. Highlight five Characteristics of Good Research Design: [5marks]

**QUESTION TWO**

- a. Differentiate between Pure research and Applied research giving examples [5marks]
- b. List at least five Forms of Hypothesis [5marks]

- c. **State** and briefly explain at least five tools of data collection [5marks]
- d. Explain the difference between primary data and Secondary data and State the five basic types of primary data, distinguished by the way they are collected giving examples [5marks]

**QUESTION THREE**

- a. Explain five limitations of Qualitative Research [5 marks]
- b. Highlight five Types of Research On the basis of method of research [5marks]
- c. Highlight the General format of research report: [10marks]

**QUESTION FOUR**

- a. State the primary purposes of quantitative analysis [5marks]
- b. Discuss the three main sources of secondary data [6 marks]
- c. State and explain the two types of sampling procedure: [4marks]
- d. State the main reasons for rejecting a proposal [5marks]

**QUESTION FIVE.**

- a. State at least 3 assumptions of Sampling: [3marks]
- b. Highlight the four main categories/ types of Experimental designs [4marks]
- c. State five characteristics of a population giving examples [5marks]
- d. Highlight the general steps in Experimental Research Methods [8marks]
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