

CHUKA UNIVERSITY

UNIVERSITY EXAMINATIONS 2023

FIRST YEAR EXAMINATIONS FOR THE AWARD OF BACHELOR OF SCIENCE IN MATHEMATICS.

MATH 390: RESEARCH METHODOLOGY

TIME: 2 HOURS

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

QUESTION TWO

- a. Differentiate between Pure research and Applied research giving examples 5mks
- b. List at least five Forms of Hypothesis 5mks
- c. **State** and briefly explain at least five tools of data collection 5mks
- 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 6mks

QUESTION THREE

- a. Explain five limitations of Qualitative Research 5mks

b. Highlight five Types of Research On the basis of method of research 5mks

c. Highlight the **General format of research report:** **10mks**

QUESTION FOUR

a. State the primary purposes of quantitative analysis 5mks

b. Discuss the three main sources of secondary data 6 mks

c. State and explain the two types of sampling procedure: 4mks

d. State the main reasons for rejecting a proposal 5mks

QUESTION FIVE.

a. State at least 3 assumptions of Sampling: 3mks

b. Highlight the four main categories/ types of Experimental designs 4mks

c. State five characteristics of a population giving examples 5mks

d. Highlight the general steps in Experimental Research Methods 8mks