



**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR**

**MAIN EXAMS
FOR THE DEGREE
OF
BACHELOR OF OPTOMETRY**

COURSE CODE: BOV 423

COURSE TITLE: RESEARCH METHODOLOGY

DATE: 19/04/2022

TIME: 8-10AM

INSTRUCTIONS TO CANDIDATES

ANSWER ALL QUESTION

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 14 Printed Pages. Please Turn Over.



LONG ESSAY – ANSWER ALL QUESTION (50 MARKS)

1. Using and appropriate title of your choice present in simple terms the following
 - a. Research problem statement/research gaps
 - b. Research question
 - c. Research aims and objectives

2. Attempt a full description of the full structure and stages of a research proposal. Briefly highlight the importance of each section

3. Discuss the advantages and disadvantages of calculating minimum sample size determination in a descriptive population survey. Using a population sample of 15,000 school going children with refractive errors determine the minimum sample size at 95% confidence interval, assuming an error margin of 5% and global prevalence of 3% children refractive error rate.

4. Describe basic ethic rules that should be considered when conducting a health research?

5. Attempt a detailed diagrammatic presentation of research study design. What are the strength and weakness of each type of design.