"Investing in Africa's Future"

**COLLEGE OF HEALTH, AGRICULTURE AND NATURAL SCIENCES
DEPARTMENT OF BIOMEDICAL AND LABORATORY SCIENCES**

BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS DEGREE

NSHS 204 RESEARCH METHODS AND ETHICS IN HEALTH CARE

END OF FIRST SEMESTER FINAL EXAMINATIONS

22 NOVEMBER 2021

LECTURER: DR S MUTAMBU

DURATION: 5 HOURS

INSTRUCTIONS

1. Write your candidate number on your answer sheets.
2. Answer any **ONE** question of your choice.
3. Each full question carries 100 marks
4. Submit your answer scripts as PDF documents through Moodle ONLY.
5. Use the following specifications in your answer scripts:
   Font: Times New Roman
   Font size: 12
   Line spacing: 2.0
6. Credit will be given for logical, systematic and neat presentations.

Answer any ONE question

Question 1

You were appointed a member of the National Research Ethics Committee in January this year and you have been given a clinical research proposal to review.

Give a detailed account of the seven requirements that the research proposal should have for it to be labelled as "ethical". **(100 marks)**

Question 2

Analytic studies are undertaken to test specific hypotheses. Participants are compared in order to estimate the magnitude of association between exposures and outcomes.

    a. Discuss in detail the distinguishing features of the following:

        i.   A cohort study   **(30 marks)**

        ii.   A case control study   **(30 marks)**

        iii.   A cross sectional study   **(30 marks)**

    b. What are the advantages and disadvantages of case control studies?   (10 marks)

Question 3

Data are measurements or observations that are collected as a source of information. These data are then analysed, cleaned, transformed and modelled with the aim of highlighting useful information, suggesting conclusions and supporting decision making.

    a. Discuss the various types of data that are collected in different research studies and how each of them is collected.   **(60 marks)**

    b. Giving examples, discuss in detail how you can use tables and graphs to present research findings.   **(40 marks)**

END OF EXAMINATION PAPER