"Investing in Africa's Future"

COLLEGE OF HEALTH, AGRICULTURE AND NATURAL SCIENCES

DEPARTMENT OF BIOMEDICAL AND MEDICAL LABORATORY SCIENCES
BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS DEGREE

NSHS 204: RESEARCH METHODS AND ETHICS IN HEALTH CARE
NSNS 308: RESEARCH METHODOLOGY
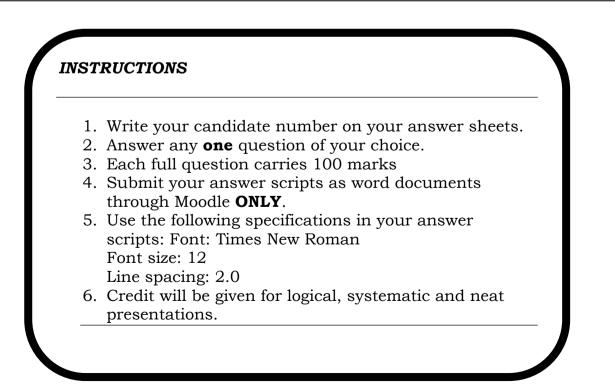
END OF SECOND SEMESTER FINAL EXAMINATIONS

NOV/DEC 2020

LECTURER: DR S MUTAMBU

DATE: 30 NOVEMBER 2020

TIME: 1400 HRS

DURATION: 24 HOURS

INSTRUCTIONS

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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 word 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.
a. In your own words, illustrate and discuss in detail the key features of experimental designs.

[50 marks]

b. Give a detailed account of Mode of Inquiry based types of research. **[50 marks]**

Question 2
a. A funding **Agency Y** has just published a call in which they would like to fund multi country research studies in the three (3) areas listed below:

    i. Development of vaccines against an infectious debilitating **disease Y** that has killed tens of children in six countries in **Southern Africa**.

    ii. Innovations targeted against vectors of a deadly **disease X** that has infected many tourists on 5 tropical islands in the **Pacific region**.

    iii. Formulation of a high impact nutritious food to feed young children in emergency situations.

A research group in the North has approached your institute in the South to collaborate with them and other partners on one of the areas listed above.

Discuss in detail the ethical requirements that you and your new collaborators have to fulfil in order for your research to be labelled as "ETHICAL". **[50 marks]**

b. A research group in the **College of Health Sciences, Agriculture and Natural Sciences** has developed a new preventive technology against human tick borne diseases and they now want to conduct a research trial on its effectiveness on a wide scale in **District M**.

Discuss the players who should be involved in this research trial. What would be the role of each player in this research trial? **[50 marks]**

Question 3
In your own words and giving examples, clearly compare and contrast **Probability** and **Non-probability** sampling techniques in research. **[100 marks]**

The End