



***“Investing in Africa’s future”***

**COLLEGE OF HEALTH AGRICULTURE & NATURAL SCIENCE  
(CHANS)**

**NREM 500: RESEARCH METHODS**

**END OF SECOND SEMESTER FINAL EXAMINATIONS**

**MAY 2021**

**LECTURER: DR C. MBUBA**

**DURATION: 7 HRS**

---

**INSTRUCTIONS**

Answer **any one** question

All questions carry equal marks (100)

Use: Times New Roman, Font size 12, Line space: 2.0.

Submit answers in Word Format

## Question 1

- 1) Doctors in Mutare town have observed a rising number of asthma cases among children. They would like to estimate the prevalence and risk factors associated with asthma in order to develop appropriate interventions. You have been commissioned as a researcher to be part of the team.
  - a) What is the appropriate study design? (1 Mark)
  - b) What are the pros and cons of this study design? (6 Marks)
  - c) What sampling method will you employ? (1 Mark)
  - d) What are the pros and cons of the sampling method? (6 Marks)
  - e) Describe characteristics of the questionnaire that you will develop (6 Marks)
- 2) A research firm has approached you to conduct a qualitative study on community's perceptions about causes and treatment of epilepsy. Describe the main methods that you will use to collect data (20 Marks)
- 3) Describe elements that are required for informed consent when conducting research with human participants (20 Marks)
- 4) Giving two advantages and two disadvantages, discuss three types of analytical studies (20 Marks)
- 5) Writing a scientific paper is both a science and an art. After conducting your study on prevalence and risk factors associated with hypertension in a rural region of Zimbabwe, you decide to write a paper. Outline and describe the structure of the paper that you will write (20 Marks)

## Question 2

- 1) Research is a voyage of discovery and there are practical steps through which you must pass in your journey in order to find answers to your research questions. Outline and briefly describe these steps (20 Marks)
- 2) Your research proposal on risk factors and morbidities associated with childhood obesity has been approved by the ethics review committee. After conducting the study and analyzing the data, you decide to write a report. Outline and describe the structure of the report that you will write (20 Marks)
- 3) Describe characteristics of a good research (10 Marks)
- 4) Giving two advantages and two disadvantages, discuss three types of descriptive studies (20 Marks)
- 5) Describe a focus group discussion and outline its pros and cons (10 Marks)
- 6) You are a reviewer for journal of pediatrics. You are requested to review a paper on food allergy in children. Describe how you will critically review the paper (20 Marks).

### Question 3

- 1) You are a teaching assistant in a research methods class. Students having difficulties in formulating a research question have approached you for guidance. What criteria will you advise them to use in defining a good research question (10 Marks).
- 2) Thereafter, the students were asked to formulate research questions and submit for marking. Explain the accepted criteria that you will use to check if the questions are correctly framed (10 Marks)
- 6) You have identified a research problem and would like to review literature before embarking on writing a proposal. Discuss importance and functions of literature review as well as five article sources (20 Marks)
- 3) Compare and contrast basic and applied research (10 Marks)
- 4) Differentiate between quantitative and qualitative research (10 Marks)
- 5) Giving examples, describe study designs used in qualitative research (20 Marks)
- 6) You have been invited to give a presentation to high school students on drug abuse. What will you take into consideration to ensure you have an effective presentation (10 Marks)
- 7) Describe the following variables as categorical or numeric. Further state if they are continuous, discrete, binary, ordinal (ordered) or nominal (unordered) (10 Marks)
  - a) Military rank
  - b) Birth weight
  - c) HIV status
  - d) No of deaths
  - e) Ethnic group