



"Investing in Africa's Future"

COLLEGE OF HEALTH, AGRICULTURE AND NATURAL SCIENCES

REM 500 RESEARCH METHODS 1

END OF SECOND SEMESTER EXAMINATIONS

APRIL-MAY 2019

LECTURER: E. CHIKAKA

DURATION: (3 HRS)

INSTRUCTIONS

Answer **ALL** Questions in **Section A** and **ANY 3** questions from **Section B**

The mark allocation for each question is indicated at the end of the question

Credit will be given for logical, systematic and neat presentations.

SECTION A

QUESTION 1

- What is research? [2]
- What are the reasons for doing research? [4]
- List the main types of research [4]

QUESTION 2

- (a) What is test of significance? [5]
- (b) A teacher contacted a test in Mathematics for 30 boys and 30 girls in two different schools and set out to determine whether or not the mean scores for the two groups differed significantly. Test the significant difference between the mean at level of 0.05, using the data in table 1 below [15]

Table 1: Students Performance

	Mean (\bar{X})	Standard Deviation (\bar{O})/SD	N
Boys (a)	20	2.5	30
Girls (b)	15	2.0	30

QUESTION 3

- (a) What is a research design? What is the purpose of the research design when carrying out research? [5]
- (b) Outline the steps you take in the research process [5]

SECTION B

ANSWER ANY THREE (3) QUESTIONS. EACH QUESTION CARRIES 20 MARKS

QUESTION 4

Think of researchable topic and write a 2-page draft proposal covering briefly the points noted below.

- a. Title
- b. Introduction
- c. Background
- d. Statement of the Problem
- e. Justification
- f. Purpose of the study/Broad Objective
- g. Specific Objectives

- h. Research Questions/ Hypothesis
 - i. Delimitation
 - j. Study Design
 - k. Study Site
 - l. Study Population
 - m. Sample Size and Sampling Procedure
 - n. Data collection Instruments and Pretest/Pilot Study
 - o. Data collection Procedure
 - p. Data Analysis and Organisation
 - q. Ethical Consideration
 - r. Budget
 - s. Timeline
- [20]

QUESTION 5

- (a) Compare and contrast qualitative and quantitative research approaches [10]
- (b) What are the types of data that a researcher can collect? [5]
- (c) Why is it necessary to know the type of data that you collect? [5]

QUESTION 6

Reliability is one of the basic attributes of a good test

- (a) Define with example the term 'reliability' [2]
- (b) Describe briefly two types of reliability [4]
- (c) In Table 2 are the raw scores obtained by students on test 1 (X) and Re-test 2 (Y) administered by a researcher. The researcher wants to know if test 1 and 2 are measuring the same kind of ability in English.

Table 2: Students Scores in English Test

Name of Student	Score in Test Exercise (X)	Score in Re-Test Exercise (Y)
Jokonia	80	88
Loveness	65	80
Vaida	73	67
Helen	90	79
Nyembesi	72	60
Audrey	87	86
Tilda	60	55

- (I) Use the above raw scores to help the researcher to find the reliability coefficient of the test using Pearson's Product Moment Correlation Coefficient (r) for raw data formula. [6]
- (II) On the basis of the computed (r), are the two tests measuring the same kind of ability? Give reasons for your answer. [8]

QUESTION 7

- a. In research methods, the collection of data from the population is central to the generation of a solution to the research question that is posed. Variability of data is an issue that is important to consider. Explain the terms data, variable and population as used in research methods. [5]
- b. What are the advantages of sampling to a researcher? [5]
- c. Briefly explain with examples why respondents may refuse to be interviewed [5]
- d. Giving relevant examples define quantitative research [5]

QUESTION 8

Theory and literature review provide the necessary foundation for developing coherent research. How exactly do these two help the researcher? [20]