



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

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS  
2021/2022 ACADEMIC YEAR**

**SPECIAL/SUPPLEMENTARY EXAMINATION**

**FOR THE DEGREE  
OF  
BACHELOR OF SCIENCE IN NURSING (DL)**

**COURSE CODE: NCD 236**

**COURSE TITLE: RESEARCH METHODOLOGY**

**DATE: 3<sup>RD</sup> OCTOBER 2022**

**TIME: 03:00 – 06:00 PM**

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**INSTRUCTIONS TO CANDIDATES**

- (i) WRITE YOUR UNIVERSITY REGISTRATION NUMBER ON EVERY PIECE OF PAPER YOU USE.
- (ii) DO NOT WRITE YOUR NAME ON ANY PIECE OF PAPER YOU USE.
- (iii) THIS PAPER CONSISTS OF THREE SECTIONS: SECTION I: MULTIPLE CHOICE QUESTIONS (20 QUESTIONS); SECTION II: SHORT ANSWER QUESTIONS (7 QUESTIONS) AND LONG ANSWER QUESTIONS (2 QUESTIONS)
- (iv) ANSWER ALL QUESTIONS IN THIS PAPER.
- (v) READ CAREFULLY.

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 5 Printed Pages. Please Turn Over. 

**SECTION I: MULTIPLE CHOICE QUESTIONS (20 MARKS)**

1. A researcher designs an experiment to test how variables interact to influence how well children learn spelling words. In this case, the main purpose of the study was:

- a. Explanation
- b. Description
- c. Influence
- d. Prediction

2. Which of the following best describes quantitative research?

- a. the collection of nonnumerical data
- b. an attempt to confirm the researcher's hypotheses
- c. research that is exploratory
- d. research that attempts to generate a new theory

3. A variable that is presumed to cause a change in another variable is called a(n):

- a. categorical variable
- b. dependent variable
- c. independent variable
- d. intervening variable

4. Qualitative research is often exploratory and has the following characteristic:

- a. it is typically used when a great deal is unknown about the topic of interest
- b. it relies on the collection of numerical data
- c. it is used to test hypotheses and develop theory about phenomena in the world
- d. it uses the deductive scientific method

5. A positive correlation is present when \_\_\_\_\_.

- a. two variables move in opposite directions.
- b. two variables move in the same direction.
- c. one variable goes up and one goes down
- d. several variables never change.

6. Research that is done to understand an event from the past is known as \_\_\_\_\_?

- a. experimental research
- b. historical research
- c. replication
- d. archival research

7. Which of the following can best be described as a categorical variable?

- a. age
- b. annual income
- c. grade point average
- d. religion

8. When interpreting a correlation coefficient expressing the relationship between two variables, it is very important to avoid \_\_\_\_\_.

- a. checking the strength of relationship
- b. jumping to the conclusion of causality

- c. checking the direction of the relationship
  - d. expressing a relationship with a correlation coefficient
9. A good qualitative problem statement:
- a. Defines the independent and dependent variables
  - b. Conveys a sense of emerging design
  - c. Specifies a research hypothesis to be tested
  - d. Specifies the relationship between variables that the researcher expects to find
10. The statement of purpose in a research study should:
- a. Identify the design of the study
  - b. Identify the intent or objective of the study
  - c. Specify the type of people to be used in the study
  - d. Describe the study
11. According to the text, which of the following orders is the recommended in the flowchart of the development of a research idea?
- a. Research topic, research problem, research purpose, research question, hypothesis
  - b. Research topic, research purpose, research problem, research question, hypothesis
  - c. Research topic, research problem, research purpose, research question, hypothesis
  - d. Research topic, hypothesis, research problem, research question, research purpose
12. A review of the literature prior to formulating research questions allows the researcher, among others, to do the following:
- a. To become familiar with prior research on the phenomenon of interest
  - b. To identify study area where the proposed research will be conducted
  - c. To understand the work plan and how it fits in the proposed research
  - d. To be able to budget well
13. A statement of the quantitative research question should:
- a. Be exactly like the main objective of the research but in question form
  - b. Help the research in selecting appropriate study site
  - c. Specify all the variables of interest
  - d. Help the research in selecting appropriate participants, research methods, measures, and materials
14. Which of the following is necessary in obtaining informed consent?
- a. A description of the statistical analyses that will be carried out
  - b. A description of the purpose of the research
  - c. A description of the reliability and validity of test instruments
  - d. A list of publications that the researcher has had in the last ten years
15. ....when the participants are not reveal to anyone but researcher and staff?
- a. Confidentiality

- b. Anonymity
- c. Ethics
- d. Discretion

16. Reliability is most simply known as which of the following?

- a. Consistency or stability
- b. Appropriateness of interpretations on the basis of test scores
- c. Ways in which people are the same
- d. A rank order of participants on some characteristic

17. Which of these is not a method of data collection

- a. Questionnaires
- b. Interviews
- c. Experiments
- d. Observations

18. Researchers use both open-ended and closed-ended questions to collect data.

Which of the following statements is true?

- a. Open-ended questions directly provide quantitative data based on the researcher's predetermined response categories
- b. Closed-ended questions provide quantitative data in the participant's own words
- c. Open-ended questions provide qualitative data in the participant's own words
- d. Closed-ended questions directly provide qualitative data in the participants' own words

19. When constructing a questionnaire it is important to do each of the following except \_\_\_\_\_.

- a. Use "leading" or "loaded" questions
- b. Use natural language
- c. Understand your research participants
- d. Pilot your test questionnaire

20. Another name for a Likert Scale is a(n):

- a. Interview protocol
- b. Event sampling
- c. Summated rating scale
- d. Ranking

## **SECTION II: SHORT ANSWER QUESTIONS – 40 MARKS**

1. Define the following **five** terms (10 points).

- i. Null hypothesis
- ii. Ecological fallacy
- iii. Independent variable
- iv. Operationalization of variables
- v. Evidence-based practice

2. (i) Define internal and external validity. (4 points)

- ii) Which is more important and why? (4 points)
3. Identify five purposes of literature review (5 points)
4. What are the five factors that help in identifying a researchable problem (5 points)
5. Name and explain the three primary ethical principles on which standards of ethical conduct in research are based (6 points)
6. State the five types of qualitative study designs (5 points)
7. What is the purpose of conducting qualitative interviews (1 point)

### **SECTION III: LONG ANSWER QUESTIONS – 40 MARKS**

1. The use of cross-sectional research designs continues, despite many calls for replacing them with longitudinal designs.
  - (a) What are the issues related to interpreting cross sectional data? (8 points)
  - b) What are the advantages and disadvantages of cross-sectional study designs? (6 points)
  - c) What are its disadvantages of cross-sectional study (6 points)
2. Compare and contrast quantitative and qualitative study designs with reference to sample size and purpose (20 points).

