



(University of Choice)  
**MASINDE MULIRO UNIVERSITY OF  
SCIENCE AND TECHNOLOGY  
(MMUST)**

**MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS  
2021/2022 ACADEMIC YEAR**

**THIRD YEAR SECOND TRIMESTER EXAMINATIONS**

**FOR THE DEGREE  
OF  
BACHELOR OF SCIENCE IN MEDICAL LABORATORY  
SCIENCES/BIO TECHNOLOGY**

**COURSE CODE: BML 327**

**COURSE TITLE: INTRODUCTION TO RESEARCH METHODS**

**DATE: 22/04/2022**

**TIME: 8.00 -10.00 AM**

**INSTRUCTIONS TO CANDIDATES**

This paper consists of three sections:

- i. Section A – Multiple Choice Questions
- ii. Section B – Short Answer Question
- iii. Section C – Long Answer Question.

Answer all questions

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over. ►

**Section A: Multiple Choice Questions (20 marks)**

*Choose the most suitable choice, only one choice is correct*

1. The main concept behind doing research is to?
  - A. study and explore knowledge
  - B. Start with a predefined and clear-cut objectives
  - C. get new ideas
  - D. define clear objectives
  
2. Who defined “Research” as “systematized effort to gain new knowledge”
  - A. Tom & Zerry
  - B. Redman and Mory
  - C. F.W Taylor
  - D. Ross Taylor
  
3. Descriptive research studies is a category of research that aims to?
  - A. Achieve new insights of a concept
  - B. Analyze characteristics of something
  - C. Determine the frequency with which something occurs
  - D. Test the relationship between variables
  
4. Which of the following does not correspond to characteristics of research?
  - A. Research is critical and empirical
  - B. Research is systematic
  - C. Research is problem solving oriented
  - D. Research is not a process
  
5. Which one is called non-probability sampling?
  - A. Quota sampling
  - B. Cluster sampling
  - C. Systematic sampling
  - D. Stratified random sampling
  
6. Research problem is selected from the standpoint of
  - A. Social relevance
  - B. Financial support
  - C. Researcher's interest
  - D. Availability of relevant literature
  
7. Which one among the following phrases does not correspond to the meaning of research as a process?
  - A. Problem Solving
  - B. Trial and Error
  - C. Objective Observation

D. Systematic Activity

8. . In order to pursue the research, which of the following is priorly required?
  - A. Developing a research design
  - B. Formulating a research question
  - C. Deciding about the data analysis procedure
  - D. Formulating a research hypothesis
  
9. Why do you need to review the existing literature?
  - A. To make sure you have a long list of references
  - B. Because without it, you could never reach the required word-count
  - C. To find out what is already known about your area of interest
  - D. To help in your general studyin
  
10. Which of the following is true regarding research objectives?
  - A. Research objectives, when achieved, will provide sufficient earnings to obtain areas on able return on investment.
  - B. Research objectives, when obtained, will ensure the viability of the marketing research department
  - C. Research objectives, when achieved, provide the information necessary to solve the problem
  - D. Research objectives are seldom achieved but should be stated as goals to be sought.
  
11. The research participants are described in detail in which section of the research plan?
  - A. Introduction
  - B. Method
  - C. Data analysis
  - D. Discussion
  
12. What is a research design?
  - A. A way of conducting research that is not grounded in theory
  - B. The choice between using qualitative or quantitative methods
  - C. The style in which you present your research findings, e.g. a graph
  - D. A framework for every stage of the collection and analysis of data
  
13. A test of statistical significance indicates how confident the researcher is about?
  - A. The inter-coder reliability of their structured interview schedule
  - B. Passing their driving test
  - C. Understanding the difference between bivariate and multivariate analysis
  - D. Generalising their findings from the sample to the population
  
14. Informed consent is important because?
  - A. It enables the participant to understand vital information on the proposed trial.
  - B. It provides the participant with all the information regarding remote risks.
  - C. It enables the investigator to recruit participants of his choice.
  - D. It promotes clinical research.

15. The principle of respect for human dignity includes:
- A. Freedom from exploitation
  - B. Right to privacy
  - C. Right to fair treatment
  - D. Right to self determination
16. The techniques the researcher uses in conducting research activities is referred to as:
- A. Research methodology
  - B. Research methods
  - C. Research technology
  - D. Research techniques
17. The following are advantages of a systematic random sample EXCEPT:
- A. Sample easy to select.
  - B. Suitable sampling frame can be identified easily.
  - C. Sample evenly spread over entire reference population.
  - D. Allows oversampling \
18. Function of a pre-test;
- A. To get an overview of data to collected.
  - B. To reduce number of sample.
  - C. As a requirement in data analysis.
  - D. To see if all the instrument works well.
19. This design enables the researcher to assess the degree of relationship that exists between two or more variables.
- A. Correlation design.
  - B. Experimental design.
  - C. Case study design.
  - D. Descriptive study.
20. Reason for the inclusion of a references in a research project;
- A. To keep everything that has been read in writing the report.
  - B. A courtesy of the authors of the student that you have read.
  - C. Fully identify the sources of information in the report so others may also check.
  - D. To impress lectures

**Section B Short answers (40 marks)**

1. Explain the importance of research to health workers [5 Marks]
2. State the principles of research [5 Marks]
3. Define research problem and give three sources of research problems [5 Marks]
4. Demonstrate how you will apply systematic stratified sampling to select your study participants [5 Marks]

5. Identify the key things that must be included in an abstract of a completed research project[5 Marks]
6. State the difference between quantitative and qualitative research approaches [5 marks]
7. Explain five qualities of affective research topic[5 Marks]
8. Explain the causes of selection bias in research [5 Marks]

**Section C: Long answers (60 marks)**

1. Describe the steps involved in conducting research (Research process) [20 Marks]
2. Selecting a topic of your choice, discuss the ethical principles that will be applied in your study [10 Marks]
3. Discuss non-probability sampling techniques [10 Marks]
4. Research methodology is a key area that enhance achievement of good research findings, enumerate all the components of research methodology (10marks)

