



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

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2018/2019 ACADEMIC YEAR**

THIRD YEAR SECOND TRIMESTER EXAMINATIONS

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

COURSE CODE: BML 327

COURSE TITLE: INTRODUCTION TO RESEARCH METHODS

DATE: 21ST MAY 2019

TIME: 3.00 -5.00 PM

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

Section A: Multiple Choice Questions (20 marks)

Choose the most suitable choice, only one choice is correct

1. 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.
2. Vulnerable populations are those best characterized as:
 - a. Relatively poor persons.
 - b. Persons experiencing emotional distress
 - c. Non-citizen residents of a foreign country.
 - d. Persons who are mentally incompetent
3. The following are the primary ethical principle EXCEPT:
 - a. Beneficence
 - b. Respect for human dignity
 - c. Independence
 - d. Justice.
4. It is a hypothesis or question of interest to a researcher which can be tested or answered through collection and analysis of data.
 - a. Statement of problem.
 - b. Research problem
 - c. Literature review
 - d. Objectives.
5. The following are criteria for selecting a research topic EXCEPT:
 - a. Political stability
 - b. Ethical acceptability
 - c. Relevance
 - d. Confidentiality
6. 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
7. 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.
8. The following are factors that influence sample representative-ness EXCEPT
 - a. Sampling procedure
 - b. Sample size.
 - c. Sampling design.
 - d. Participation (response)

9. Guidelines of choosing a sampling technique.
 - a. The objectives of the study.
 - b. Non-mathematical or convenience methods where it is at the discretion of the researcher to determine the sample size.
 - c. Use of statistical methods that is use of the formulae.
 - d. From the statistical tables
10. An assumption is;
 - a. This is a list of all the works cited in the study
 - b. The supposition that a fact is true.
 - c. This deals with organisation, interpretation and presentation of collected data.
 - d. These are facts on which a research interpretation will be based.
11. The role of community leaders in the authorisation of a study to be done.
 - a. It gives the proposal trial ethical validity.
 - b. It is fosters respect to the leaders.
 - c. It ensures that the community volunteers.
 - d. No major roles.
12. The following are purpose of collecting data EXCEPT;
 - a. To stimulate new ideas that leads to improvement or further evaluation.
 - b. To increase knowledge.
 - c. To influence regulation of policies and regulations
 - d. For justification of existing programming.
13. An instrument that needs the researcher to master the topic before use of the instrument.
 - a. Structured interview.
 - b. Unstructured interview.
 - c. Unstructured questionnaires.
 - d. Observation.
14. 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.
15. Best situation to use telephone interviews.
 - a. Experimental study.
 - b. Flexibility of the participants.
 - c. Limited time.
 - d. Small sample.
16. The writing of research reports is best regarded as:
 - a. An essay
 - b. The easiest part of the research process
 - c. A skill
 - d. Unnecessary work
17. The abstract includes
 - a. A list of references.
 - b. An explanation of the statistical method applied.

- c. List of figures.
 - d. Conclusion of the research.
18. One of the following contains no mistake?
- a. Sydney 2003; jones 1999b
 - b. Simmons &Gerald, 2005; Young and Epstein, 2007.
 - c. Richards, et al; 2008
 - d. Smithfield 2007, Taylor, 2008.
19. 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
20. The ideal model for a research report is
- a. A magazine article
 - b. Journal article
 - c. Essay format
 - d. A newspaper

Section B Short answers (40 marks)

1. Explain four criteria for selecting a research topic.(8marks)
2. Explain four research designs. (8marks)
3. Explain the levels of measurements. (8marks)
4. Explain the instruments used in data collection. (8marks)
5. Explain the ethical considerations in a research. (8marks)

Section C: Long answers (40 marks)

1. Describe any five sampling technique in research methodology. (20marks)
2. Describe the components of a research proposal. (20marks)