



(University of Choice)

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

SCHOOL OF NURSING MIDWIFERY AND PARAMEDICAL SCIENCES

**UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR**

**THIRD YEAR TRIMESTER TWO FOR THE DEGREE OF BACHELOR OF SCIENCE IN
OCCUPATIONAL HEALTH AND SAFETY
MAIN EXAMINATION**

COURSE CODE: NCO 327

COURSE TITLE: RESEARCH METHODOLOGY

DATE: Monday 8th April, 2024

Time: 3.00-6.00 PM

INSTRUCTIONS TO CANDIDATES

All questions are compulsory

DURATION: 3 Hours

MMUST observes ZERO tolerance to examination cheating

This paper consists of (5) printed pages. Please turn over.

1. The main role of research in Occupational Health and Safety is:
 - A. To investigate work-related diseases and injuries
 - B. To upsurge one's social status.
 - C. To increase one's job prospects.
 - D. To augment one's personal growth
2. In order to undertake research, which of the following should be of priority to a researcher?
 - A. Developing a research design
 - B. Formulating a research question
 - C. Deciding about the data analysis procedure
 - D. Formulating a research hypothesis
3. A researcher intends to explore the result of possible factors for the organization of effective mid-day meal interventions. Which research method will be most appropriate for this study?
 - A. Descriptive survey method
 - B. Historical method
 - C. Ex-post facto method
 - D. Experimental method
4. The major attribute of Correlation Analysis is:
 - A. Association among variables
 - B. Difference among variables
 - C. Regression among variables
 - D. Variations among variables
5. What is the name of the conceptual framework in which the research is carried out?
 - A. Research hypothesis
 - B. Synopsis of Research
 - C. Research paradigm
 - D. Research design
6. Which of the following features are considered as critical in qualitative research?
 - A. Collecting data with the help of standardized research tools.
 - B. Design sampling with probability sample techniques.
 - C. Collecting data that examines participant's experiences.
 - D. Gathering data with structured questionnaires
7. Which one among the following statements is false in relation to participatory research?
 - A. It recognizes knowledge as power
 - B. It is a collective process of inquiry
 - C. It emphasizes people as experts
 - D. Its sole purpose is the production of knowledge

8. The following include the advantages of random sampling:
 - A. Reasonably accurate
 - B. An economical method of data collection
 - C. Free from personal biases
 - D. All of the above
9. Longitudinal research approach deals with the following
 - A. Long-term research
 - B. Short-term research
 - C. Horizontal research
 - D. None of the above
10. What is the main aim of interdisciplinary research?
 - A. To over simplify the problem of research
 - B. To bring out the holistic approach to research
 - C. To create a new trend in research methodology
 - D. To reduce the emphasis on a single subject in the research domain
11. The conclusions and findings of the following type of research cannot be generalized to other populations?
 - A. Casual Comparative Research
 - B. Historical Research
 - C. Descriptive Research
 - D. Experimental Research
12. Which one among the following is the most comprehensive source of population data?
 - A. Census
 - B. National Sample Surveys
 - C. Demographic Health Surveys
 - D. National Family Health Surveys
13. Which one among the following variables cannot be expressed in quantitative terms?
 - A. Numerical Aptitude
 - B. Marital Status
 - C. Socio-economic Status
 - D. Professional Attitude
14. Literature review has the following functions in research:
 - A. It provides a theoretical background to the study.
 - B. It helps to establish the links between what a researcher is proposing to examine and what has already been done.
 - C. It enables a researcher to show how the findings have contributed to the existing body of knowledge
 - D. All of the above

15. The following statement relates to ordinal scales
- A. Enables the classification of individuals, objects or responses based on a common/shared characteristic with no ranking
 - B. Enables the classification of individuals, objects or responses based on a common/shared characteristic including ranking
 - C. Subcategories are arranged in an ascending or descending order
 - D. Variable may have one, two or more subcategories
16. The following comprise phases in testing hypothesis except
- A. Constructing a hypothesis
 - B. Gathering appropriate evidence
 - C. Writing research questions
 - D. Analysing evidence to draw conclusions as to its validity
17. The following comprise a qualitative research design
- A. Retrospective
 - B. Prospective
 - C. Phenomenology
 - D. Longitudinal
18. Measures of central tendency includes:
- A. Mean
 - B. Median
 - C. Standard deviation
 - D. All of the above

For question 19 and 20, indicate whether the statement is True or False:

19. Surveys provides primary data in research _____
20. Validity is the extent to which a concept is accurately measured in a study _____

SECTION B

SHORT ANSWER QUESTIONS (40 MARKS)

1. a) What is **Research**? (2 marks)
b) Explain **TWO (2)** aims of research (2 marks)
2. Explain **THREE (3)** characteristics of Scientific Research (6 marks)
3. Differentiate between **basic** and **applied** research (6 marks)
4. Differentiate between the following variables: **Dependent variable, Independent variable** and **Confounding variable** (6 marks)
5. Explain **THREE (3)** principles of research methodology (6 marks)
6. a) What is **sampling** (2 mark)

- b) Using examples of **TWO (2)** sampling procedures, describe the process that a researcher will use to give each participant an equal chance to be included in a study (6 marks)
7. a) Define the term **“Research Problem”** (1 mark)
- b) Explain the process that a researcher would follow in identification of a research problem (3 marks)

SECTION C: LONG ANSWER QUESTIONS (40 MARKS)

1. The Occupational Health and Safety Officer in a sugar processing firm is conducting research to determine the causes of frequent absenteeism related to complaints of back pain among the workers. Discuss TWO (2) data collection tools that the officer may use for data collection. (20 Marks)
2. Discuss five ethical principles that a researcher would consider when conducting research in Occupational Health and safety (20 marks)