AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF NURSING AND MIDWIFERY SCIENCES
KENYA REGISTERED COMMUNITY HEALTH NURSING
END OF SEMESTER AUGUST 2024 EXAMINATIONS

COURSE CODE AND TITLE: DNS 224 -NURSING RESEARCH
DATE: WEDNESDAY 14TH AUGUST 2024
TIME: 2 Hours   **START:** 0900 HOURS   **FINISH:** 1100 HOURS

INSTRUCTIONS
1. This exam will be marked **out of 70 Marks**
2. ALL Questions are compulsory.
3. The Examination has Three Sections: Section I- Multiple Choice Questions, Section II: Short Answer Questions, Section III: Long Essay Questions
4. Answer all Questions in the ANSWER BOOKLET provided
5. Do Not write anything on the question paper -use the back of your booklet for rough work if need be.

SECTION I: MULTIPLE CHOICES QUESTIONS (20 MARKS)

1. **The following best defines research:-**

 a) A systematic investigation to establish facts.
b) An opinion survey to collect general public views.
c) An exploratory activity without a specific goal.
d) An informal inquiry to gather anecdotal evidence.

2. **The type of research that aims to find a solution to an immediate problem is:-**

a) Basic research
b) Applied research
c) Exploratory research
d) Descriptive research

3. The step in the research process that involves appraisal of existing work and findings in the subject of interest is:-

a) Problem identification
b) Data collection
c) Research methodology
d) Literature review

4. The research design is best suited for establishing cause-and-effect relationships is:-

a) Descriptive design
b) Correlational design
c) Experimental design
d) Exploratory design

5. The ethical principle in research necessitating voluntary participation by research subjects is:-

 a) Confidentiality
 b) Informed consent
 c) Beneficence
 d) Justice

6. The primary purpose of data analysis in research is:-

    a) Collecting data
    b) Interpreting data
    c) Reporting data
    d) Storing data

7. The measure of central tendency most appropriate for skewed data is:-

    a) Arithmetic mean
    b) Mode
    c) Median
    d) Range

8. **In statistics, standard deviation measures:-**

    a) Central value of a dataset
    b) Spread of data points around the mean
    c) Most frequently occurring value
    d) Difference between the highest and lowest values

9. **A critial element of a research proposal is :-**

    a) Researcher's personal opinion
    b) Detailed budget plan
    c) Hypothesis or research question
    d) Advertising strategy for dissemination

10. **The obligation to protect participant data in research** is a dictate to the ethical principle of:-
    a) Autonomy
    b) Confidentiality
    c) Integrity
    d) Fidelity

11. **The type of research design involving the manipulation of one or more variables to determine their effect is:-**

    a) Descriptive design

    b) Correlational design

    c) Experimental design

    d) Qualitative design

12. **The research methodology involves observing subjects in their natural environment is:-**

    a) Experimental research
    b) Survey research
    c) Ethnographic research
    d) Case study research

13. **The mode of a dataset is best described as:**

    a) The average of all data points.
    b) The middle value when data points are arranged in order.
    c) The difference between the highest and lowest values.
    d) The most frequently occurring value.

14. **The primary purpose of a literature review in research is to:-**

    a) Collect data from participants.
    b) Summarize and synthesize existing research.
    c) Analyze collected data.
    d) Publish the research findings.

15. **Informed consent in research ensures that participants:**
    a) Are compensated for their time.
    b) Understand the risks and benefits of the study.
    c) Receive guaranteed positive outcomes.
    d) Can withdraw only with approval.

16. **The type of data best collected from structured interviews with predefined questions is reffered to as:-**

    a) Qualitative data
    b) Quantitative data
    c) Exploratory data
    d) Observational data

17. **The research design most appropriate for studying rare or unique cases in depth:-**

    a) Survey design
    b) Case study design
    c) Experimental design
    d) Cross-sectional design

18. **The measure of dispersion indicating the average distance between each data point and the mean is known as:-**

  a) Range
  b) Standard deviation
  c) Variance
  d) Median

19. **Ethical considerations in research include all the following EXCEPT:**

  a) Beneficence
  b) Justice
  c) Autonomy
  d) Efficiency

20. **The significance of research in nursing includes:**

  a) Generating revenue for healthcare institutions.
  b) Ensuring patient confidentiality.
  c) Improving patient care through evidence-based practices.
  d) Increasing nurse workload.\

SECTION II: SHORT ANSWER QUESTIONS (30 MARKS)

1. Define the following terms:
      b. Research. (2 mark)
      c. Research Proposal. (2 mark)
2. Describe the significance of research in nursing. (4 Marks)
3. State the components of the research process. (4 Marks)
4. Outline the components of a research proposal. (4 Marks)
5. Describe two (2) main types of research designs. (4 Marks)
6. Discuss three (3) ethical issues in research. (6 Marks)
7. Discuss non-probability sampling techniques used in research. (4 Marks)

SECTION III: LONG ANSWER QUESTIONS (20 MARKS)

1. A researcher is studying the impact of a new dietary intervention on the cholesterol levels of a population. The study involved 100 participants who were randomly assigned to either the intervention group or the control group. After six months, the cholesterol levels of participants were recorded. The data below represents the cholesterol levels (in mg/dL) of participants in the intervention group:

Cholesterol Range (mg/dL)	Frequency (f)
120-139	5
140-159	10
160-179	15
180-199	20
200-219	25
220-239	15
240-259	10

    a. Calculate the arithmetic mean cholesterol level of the participants in the intervention group. (5 Marks)

    b. Calculate the standard deviation and variance of the cholesterol levels. (5 Marks)

    c. Describe the sampling technique used in this study and explain its significance. (5 Marks)

    d. Discuss the data collection methods that could be used to gather cholesterol levels in this study. (5 Marks)