

UNIVERSITY OF SWAZILAND  
FACULTY OF HEALTH SCIENCES  
MAIN EXAMINATION DECEMBER 2018

COURSE TITLE: HEALTH SYSTEMS RESEARCH

COURSE CODE: HSC 403

THERE ARE 07 PAGES INCLUDING THE COVER PAGE.

TIME ALLOWED: 2 HOURS

TOTAL MARKS: 75

INSTRUCTIONS:

1. THERE ARE THREE (3) QUESTIONS IN THIS PAPER
2. ANSWER ALL THREE (3) QUESTIONS
3. EACH QUESTION IS ALLOCATED 25 MARKS
4. WRITE LEGIBLE

DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE TOLD TO DO SO BY THE  
INVIGILATOR

### QUESTION 1

1. Operational definitions are encouraged in research in order to:
  - A) Conform to the requirement of statistical analysis
  - B) Increase the probability that experiments will succeed
  - C) Make terms used in a study as explicit as possible
  - D) Make educational research more easily understood by laypersons
  
2. "Students taught first aid by programmed instruction will achieve at a higher level than those taught first aid by the traditional method." The independent variable in this hypothesis is:
  - A) Students
  - B) Level of achievement
  - C) Programmed instruction
  - D) Method of instruction
  
3. In the example in question 2, the dependent variable is:
  - A) Students
  - B) Level of achievement
  - C) Programmed instruction
  - D) Method of instruction
  
4. Statements or predictions that are tested by collecting and analyzing objective evidence are called:
  - A) Assumptions
  - B) Indicators
  - C) Hypotheses
  - D) Premises
  
5. . Characteristics of persons or things that can assume different values are called:
  - A) Distributions
  - B) Observations
  - C) Data
  - D) Variables

6. Whether or not a given study has the possibility of causing harm to participants:
- A) Can be determined by examining the pertinent legal documents
  - B) Must be determined by a review board established by the sponsoring institution
  - C) Depends on whether or not any experimentation is involved
  - D) Depends on the researcher's definition of harm
7. The first step in selecting a sample should be to:
- A) Define the population
  - B) Decide how to stratify the population
  - C) Compile a list of the population
  - D) Determine how to randomize
8. Generalizing research findings from a sample to the population is most likely to be justifiable when:
- A) A small systematic sample is used
  - B) Cluster sampling is used in a large, heterogeneous population
  - C) The null hypothesis is confirmed, regardless of the sampling procedures used
  - D) A large random sample is used
9. The most important consideration in selecting a sample is that the sample be:
- A) Selected from the population by means of a table of random numbers
  - B) Made up of a large number of subjects
  - C) Representative of the population
  - D) Selected from a large number of individuals or elements
10. Use of a volunteer sample is generally to be avoided because:
- A) Volunteers are hard to get
  - B) They are unlikely to be representative of the intended population
  - C) They are difficult to stratify
  - D) Replication is difficult

11. Which of the following is the best synonym for validity?
- A. Consistency
  - B. Feasibility
  - C. Truthfulness
  - D. Economy
12. Which of the following is the best synonym for reliability?
- A. Consistency
  - B. Usefulness
  - C. Truthfulness
  - D. Economy
13. Zandi wants to conduct on “Effects of massage and meditation on stress and pain” The approach of research that best suits this topic is;
- A. Applied research
  - B. Qualitative research
  - C. Quantitative research
  - D. Basic research
14. The research process can be compared to which of the following?
- A. A training timetable
  - B. The spine of a skeleton
  - C. The problem-solving process
  - D. Nursing theories
15. Which one of the following is not a qualitative approach to research?
- A. Grounded Theory
  - B. Philanthropy
  - C. Phenomenology
  - D. Ethnography
16. Endeavours to explain, predict and control phenomena are the goal of:
- A. Traditional method
  - B. Inductive logic method

- C. Deductive logic method
- D. The scientific method

17. What does quantitative approach in research attempts to **ELIMINATE**

- A. Empirical
- B. Bias and subjectivity
- C. Generalisation
- D. Objectivity

18. Which type of research is designed to extend the base of knowledge for the sake of knowledge production or theory

- A. Applied research
- B. Basic research
- C. Modern research
- D. Traditional research

19. Which statement meets the criteria for researchable question?

- A. Is the use of normal saline to cleanse wounds harmful to patients?
- B. Do registered nurses meet mental health needs of patients?
- C. What are the patients perceptions of the effectiveness of preoperative education?
- D. Do palliative care patients have spiritual needs?

20. In research something that does not vary is called a:

- A. Variables
- B. Method
- C. Control group
- D. Constant

21. Central building blocks for quantitative studies are:

- A. Variables

- B. Method
- C. Control group
- D. Constant

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

- A. age
- B. annual income
- C. Religion
- D. Grade point average (GPA)

23. A variable that changes because of the action of another variable is known as the:

- A. Independent variable
- B. Extraneous variable
- C. Dependent variable
- D. Complex variable

24. One important source for identification of a research problem would be:

- A. Nursing practice
- B. Research textbook
- C. Nursing code of ethics
- D. Practice guidelines

25. The role of a research supervisor is to:

- A. Make sure you keep to your schedule and deadlines
- B. Provide intellectual support, guidance and critical feedback
- C. Negotiate access to the research setting on the student's behalf
- D. Give you literature review reading list

(TOTAL = 25 marks)

## QUESTION 2

2.1 Describe 5 elements that are required for informed consent with human participants.

(5 marks)

2.2 You are expected to conduct a study among a population of 500 people. Explain the procedure you would follow to determine a sample size if there 250 females, 100 males and 150 adolescents. The sample size should be 50. (5 marks)

2.3. You are tasked to study; Experiences of key populations with regards to Pre-Exposure Prophylaxis (PrEP).

A. Articulate the research problem statement based on the above topic in one paragraph. (5 marks)

B. State the purpose of the study. (2 marks)

C. Identify the research question for the study (2 marks)

2.4. What are the key points to consider when conducting a literature review? (6 marks)

(TOTAL = 25 marks)

### QUESTION 3

3.1 Differentiate between the following;

A. Purposive and snowballing sampling (4 marks)

B. Simple random sampling and systematic sampling (4 marks)

3. 2. Describe the characteristics of a good facilitator for a focus group discussion? (5 marks)

3.3. State six (6) features of simple descriptive study (6 marks)

3.4 You had sent by main written questionnaires to various respondents in a few health facilities; after a month you realize that time is running out without data; identify and describe three (3) challenges of using this method? (6 marks)

(TOTAL = 25 marks)

**GRAND TOTAL – 75 MARKS**