

**CHUKA**



**UNIVERSITY**

**UNIVERSITY EXAMINATIONS**

**THIRD YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR  
OF SCIENCE IN PUBLIC HEALTH**

**PUHE 391: RESEARCH METHODOLOGY**

**STREAMS: PUHE Y3S2**

**TIME:2 HOURS**

**DAY/DATE: THURSDAY 13/04/2023**

**8.30 A.M. –10.30 A.M.**

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**INSTRUCTIONS**

- Do not write anything on the question paper. Mobile phones and any other reference materials are NOT allowed in the examination room.
- The paper has three sections. Answer ALL questions in Sections I and II and ONE question in section III.
- All your answers for Section I (MCQs) should be on one page.
- Number ALL your answers and indicate the order of appearance in the space provided in the cover page of the examination answer booklet.
- Write your answers legibly and use your time wisely.

**SECTION I (20 Marks)**

1. A Survey is a ..... type of Study
  - A. Descriptive
  - B. Fact finding
  - C. Analytical
  - D. Systematic
2. What is a sampling unit?
  - A. The population.
  - B. The basic unit containing the elements of the population.
  - C. All the individual elements of the final sample, drawn together.
  - D. The method used to collect the sample.

3. Which of the following is the suitable sampling method when we have a disease outbreak in one region in a population?
  - A. Cluster sampling
  - B. Quota sampling
  - C. Convenience sampling
  - D. Accidental sampling
4. When one examines the entire population instead of a subgroup of the population, this is called a \_\_\_\_\_
  - A. Non Selection
  - B. Census
  - C. Population
  - D. Bias
5. A study that would measure the number of persons with influenza in a calendar year in the country is a-----
  - A. Cohort study
  - B. Case control
  - C. Cross sectional
  - D. Case report
6. Recall results in this type of bias :
  - A. Selection bias
  - B. Information bias
  - C. Confounding
  - D. Systematic
7. Type of sampling whereby subjects are assigned according to a factor that would influence the outcome of a study
  - A. Simple random sampling
  - B. Systematic sampling
  - C. Stratified random sampling.
  - D. Cluster sampling
8. Which of the following study designs can one use to determine the proportion of persons in the population with Pulmonary Tuberculosis (PTB) using sputum for diagnosis ?

A. Case study

B. Cross sectional study

C. Case control study

D. Cohort study

9 The type of design where both exposure and disease are determined simultaneously for each subject.

A. Case study

B. Cross sectional study

C. Case control study

D. Cohort study

10. The extent to which a test is measuring what it is intended to measure is

A. Reliability

B. Validity

C. Sensitivity

D. Specificity

11. A type of study that is used to measure the incidence of a disease

A. Case report

B. Cross sectional

C. Case control

D. Cohort

12. The main objective of ..... type of study is to acquire knowledge

A. Exploratory

B. Descriptive

C. Diagnostic

D. Descriptive and Diagnostic

13. One of the terms given below refers to characteristics associated with certain events, objects, conditions, situations, and the like.

A. Construct

B. Definition

C. Concept

D. Variable

14. Which of the following is true regarding research objectives?
- A. Research objectives, when achieved, will provide sufficient earnings to obtain a reasonable 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.
15. Random sampling is also called \_\_\_\_\_.
- A. Availability sampling
  - B. Probation sampling
  - C. Probability sampling
  - D. Prospect sampling.
16. Which of the following is the final stage in the Research Process?
- A. Problem formulation
  - B. Data collection
  - C. Data Analysis
  - D. Report Writing
17. Randomization is the best approach in designing a clinical trial to
- A. Achieve predictability.
  - B. Achieve unpredictability.
  - C. Achieve blinding.
  - D. Limit confounding
18. Which of the following cannot be used as a method of data Collection?
- A. Use of Questionnaires
  - B. Observation
  - C. Interviews
  - D. Use of a conceptual framework
19. Cluster sampling is a probability sampling method
- A. True

B. False

20. All of the following are potential benefits of a randomized clinical trial, except

- A. The likelihood that the study groups will be comparable is increased.
- B. Self-selection for a particular treatment is eliminated.
- C. External validity of the study is increased.
- D. Assignment of the next subject cannot be predicted.

**SECTION II (30 MARKS)**

**Short Answer questions.**

**Answer all Questions in this section.**

- 1. Explain *six* reasons for conducting literature review in research studies. (6 Marks)
- 2. Describe *three* functions of a conceptual framework in research studies (6 Marks)
- 3. Distinguish the following terms used in research studies. (10 Marks)
  - a) Cross-sectional and longitudinal studies.
  - b) Prospective and retrospective studies.
  - c) Exploratory and explanatory studies.
  - d) Sample size and sampling frame.
  - e) Validity and reliability.
- 4. Outline *four* ethical regulations that should be adhered to when carrying out research. (4 Marks)

**SECTION III (20 Marks)**

**Long Answer questions**

**Answer one Question from this section.**

- 1. Discuss the merits and demerits of probability sampling methods. (20 Marks)
  - 2. Discuss the procedure of establishing the reliability of research instruments. (20 Marks)
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