



“Investing in Africa’s future”

COLLEGE OF HEALTH, AGRICULTURE AND NATURAL SCIENCES

SHS 308: RESEARCH METHODS

END OF SECOND SEMESTER FINAL EXAMINATIONS

APRIL/MAY 2019

LECTURER: Mrs Chituku S

DURATION: 3 HRS

INSTRUCTIONS

Answer **ALL** questions Section A

Answer any **three** questions Section B

All questions carry equal marks (20).

DO NOT repeat material.

Section A Indicate in front of the statement whether it is true (T) or false (F)

1. A variable is
 - a. any entity that can take on different values
 - b. anything that can vary can be considered a variable
 - c. A study variable is one that is recognized by the research and either controlled or manipulated in the experiment.

- d. It is either a result of some force or is itself the force that causes a change in another variable.
- 2. A discrete variable
 - a. One that has two or more categories, but there is no intrinsic ordering to the categories.
 - b. gender is a categorical variable
 - c. male and female are two categories of a discrete variable
 - d. Has no intrinsic ordering to the categories.
- 3. A Continuous variable
 - a. One that can take any value between two numbers
 - b. Height
 - c. weight,
 - d. age
- 4. concerning dependent and independent variables
 - a. Determined by the statement of the problem and the objectives of the study
 - b. Dependent variable measures the problem under study
 - c. Independent variable describe or measure the factors that are assumed to cause or influence the problem
 - d. Anything that brings difference among concepts
- 5. Advantages of a descriptive research design are:
 - a. An efficient and effective means of collecting a large amount of data about a problem area.
 - b. Short time only.
 - c. No bio physiologic or other measures are needed.
 - d. Has an intrinsic appeal for the solution of many practical problems.
- 6. Case control study design:
 - a. Examines the relationship between a suspected causal factor and a disease or other outcome
 - b. Compares persons who have a disease or outcome of interest (cases) with those who do not have the disease or outcome (controls)
 - c. Controls must be representative of the population where the cases are coming from
 - d. Looks back retrospectively to compare how frequently the exposure to a risk factor is present in each group to determine the relationship between the risk factor and the disease.
- 7. Below are strengths of case control research designs:
 - a. Relatively quick and inexpensive
 - b. Particularly well suited to the evaluation of diseases with long latent periods
 - c. Is optimal for the evaluation of rare diseases
 - d. Can examine multiple etiology factors for a single disease i.e. a variety of exposures
- 8. The following are data collection instruments:
 - a. Focus group discussion
 - b. Retrospective cohort
 - c. Questionnaire
 - d. Observational
- 9. The other name for cohort study is

- a. Follow-up study
 - b. Longitudinal study
 - c. Incidence study
 - d. Nominal ratio
10. The following are advantages of a prospective cohort study design:
- a. The temporal sequence between exposure and disease can be more clearly established
 - b. Suited for assessing the effects of rare exposure
 - c. Allows the researcher adequate numbers of exposed and non-exposed subjects
 - d. Allows for the examination of multiple effects of a single exposure
11. Limitations of a prospective cohort studies are:
- a. Time consuming and expensive
 - b. Potential for biases associated with losses to follow-up
 - c. The exposed may be followed more closely than the unexposed
 - d. Inefficient for evaluating rare diseases
12. Below is the scope of qualitative study approach:
- a. Case studies, participatory research, action research and surveys.
 - b. Generally broad holistic and comprehensive
 - c. Includes more than excludes
 - d. researcher studies real world situations as they unfold naturally
13. Below is the scope of qualitative study approach:
- a. Experiments, survey, quasi experiment.
 - b. Particularistic, narrow and limited focus, controlled.
 - c. Excludes more than includes
 - d. Researcher deliberately and systematically manipulates factors
14. Sampling is:
- a. The process of selecting a group of people, events, behaviors, or other elements with which to conduct a study
 - b. Sampling is the selection of a given number of subjects from the defined population as a representative of the population
 - c. Since this is only a representative and not the whole population the sampling method is specified so that anybody taking over would select in exactly the same manner as the original researcher would have done.
 - d. Research design
15. Probability sampling:
- a. Increases sample representativeness
 - b. Decreases sampling error and sampling bias
 - c. Can be replicated thus making the research more reliable
 - d. Increases validity.
16. Simple random sampling
- a. Elements are selected at random
 - b. Each element has the same probability of being selected.

- c. Replacing each sampled element before selecting subsequent elements is called sampling with replacement.
 - d. Is commonly used in quantitative research type
- 17. Systemic random sampling
 - a. A modified form of the simple random sampling
 - b. Elements chosen at regular intervals
 - c. Reduces sampling errors
 - d. Is a probability sampling method
- 18. Following are the advantages of stratified sampling method
 - a. Reduces the potential for selection bias
 - b. The sample is highly representative
 - c. Allows for generalisations (i.e., statistical inferences)
 - d. High external validity
- 19. Indicate true or false concerning Cluster sampling
 - a. Selection of groups of study units rather than individuals study units
 - b. Population is divided into non-overlapping clusters or areas
 - c. Each cluster is a miniature of the population
 - d. A subset of the clusters is selected randomly for the sample
- 20. In purposive sampling:
 - a. The researcher handpicks the cases to be included in his sample on the basis of his judgment of their typically
 - b. The researcher builds up a sample that is satisfactory to his specific needs
 - c. Elements are selected for a purpose.
 - d. Names are put in a box and are hand picked

Section B

Question 1

Write notes on

- a. Limitations of the study (5)
- b. Scope of the study (5)
- c. Significance of the study (5)
- d. Data analysis (5)

Question 2

Describe the following

- a. Convenience sampling (5)
- b. Stratified sampling (5)
- c. Systematic sapling (5)
- d. Quota sampling (5)

Question 3

Compare and contrast qualitative and quantitative research type (20)

Question 4

Describe one example of each of the following:

- a. Probability sampling (10)
- b. Non probability sampling (10)