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UNIVERSITY EXAMINATIONS 2023/2024

SECOND YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE IN HEALTH SYSTEM MANAGEMENT

NNH 3250: RESEARCH METHODOLOGY IN HEALTH

DATE: APRIL 2024

TIME: 2 HOURS

INSTRUCTIONS: ANSWER QUESTIONS ONE AND ANY OTHER TWO

QUESTION ONE (30 MARKS)

- a) Differentiate between single blind experiment and double blind experiment (2 marks)
- b) State three ways of ensuring validity and reliability of a research tool? (3 marks)
- c) Highlight significance of a conceptual framework in research (3marks)
- d) Suggest four ways which researchers can apply to control for the effects of extraneous variables research (4 marks)
- e) A lecturer noticed that some students on her course commented that they were better able C to recall information if they could read the information rather than listen to it in lectures. Write a hypothesis for this observation (2 marks)
- f) State 4 guiding principles to consider when selecting a research topic (4 marks)
- g) The ministry of health has released a new procedure for controlling hospital acquired infections. A health manager wants to test effectiveness of this new procedure compared to the existing procedure. Describe two experimental designs that can be applied in this study (8 marks)
- h) State four uses of a work plan in implementation in health systems research (4 marks)

QUESTION TWO (20 MARKS)

In a primary school there are about 1800 learners. An investigator wants to determine the prevalence of knowledge, attitude and practices on HIV/AIDS by taking a sample of 450 learners. The following table gives the distribution of learners by grade.

Grade	Grade Number of
4	600
5	500
6	400
7	300
Total	1,800

- Describe and justify a study design that is appropriate for this study (5 marks)
- Calculate how many students will be allocated to each grade (4 marks)
- Explain the type of sampling technique and procedures that can be used in this study and why (4 marks)
- Write three specific objectives for this study (3 marks)
- State four ethical considerations that the investigator will consider when collecting data in this population (4 marks)

QUESTION THREE (20 MARKS)

A health manager carried out a research study to compare homebased care of HIV management to hospital management of HIV. The health manager developed a questionnaire to collect data and also carried out interviews with ten family members and ten healthcare workers

- Describe and justify a study design appropriate for this study (2 marks)
- Describe three data collecting tools that the health manager can use of his study (3 marks)
- Explain the data collection methods that the health manager will apply using the tools described above (3 marks)
- State for hypotheses of this study (2 marks)
- In this study, the health manager collected qualitative and quantitative data. Differentiate qualitative from quantitative data (2 mark)

- f) Identify four ethical issues that the health manager would need to consider in this research (4 marks)
- g) Explain how the health manager will deal with ethical issues identified above (4 marks)

QUESTION FOUR (20 MARKS)

- a) Before data collection a nurse conducted a pilot study with a group of 5 patients under home-based care management and 5 patients in hospital management. State reasons for conducting a pilot study (5 marks)
- b) A group of children enrolled in an immunization period from 2 villages were followed for a period of 5 years to assess the effect of immunization on children's health status.
- i. Describe this type of research (5 marks)
 - ii. State 5 limitations of this type of research design (5 marks)
 - iii. The researcher will seek informed consent from parents/guardians before data collection. State four objectives of informed consent in this research (5 marks)