



FACULTY	AGRICULTURE, ENGINEERING AND NATURAL SCIENCES		
QUALIFICATION	B.A. GEOGRAPHY AND ENVIRONMENTAL STUDIES (HONOURS)		
DEPARTMENT	ENVIRONMENTAL SCIENCE		
SUBJECT	GENERAL METHODS AND TECHNIQUES IN GEOGRAPHY		
SUBJECT CODE	GHE3731		
DATE	JUNE/JULY 2022		
DURATION	3 HOURS	MARKS	100

UNIVERSITY OF NAMIBIA EXAMINATIONS: SPECIAL/SUPPLEMENTARY EXAMINATION

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This paper consists of 6 pages including this cover page.

Answer all questions

Instructions.

1. Work in an orderly manner and present your work neatly.
2. While most of the marks will be awarded for content, candidates are encouraged to use their own ideas to promote critical thinking and demonstrate own understanding of what is being asked for.
3. Number your questions correctly and clearly.
4. Answer all the questions in Sections A & B

SECTION A: Nature of Scientific Knowledge and Research Methodology

[60]

Question 1

- 1.1 Mouton's three world framework is useful in differentiating knowledge. Describe how the three world framework of Sutton is useful in choosing a research topic. (3)
- 1.2 Describe the difference between basic (pure) and applied research. (4)
- 1.4 Outline the differences between Geography and Environmental Studies. (4)

Question 2

- 2.1 Complete the following steps that we follow in research. (5)

Research Process Outline
1. Topic identification
2.
3.
4 Research objectives
5 Research approach, methodology & description of study sites
6.

7.
8 Presentation of research findings
9. Interpretation of findings
10. Discussion of research findings
11.

2.2 This excerpt is taken from an MA thesis from University of Western Cape (Osei, 2017)

The negative impact of climate change is projected to impact all facets of the Ghanaian economy and this threatens the development prospect of the country. The impact will be substantial on the poor and smallholder farmers that rely heavily on natural rainfall for farming activities. Adaptation and perhaps mitigation are important avenues through which to reduce the impact of climate change. Numerous studies have investigated the determinants of climate change adaptation strategies among farmers (see Mandleni & Anim, 2011; Tazeze, et al., 2012). However, these studies focused extensively on perceptions of climate change, incentives and ability to adapt, and other environmental factors. The role of social capital as determinant of household decision to adapt to climate change has not been comprehensively investigated. Moreover, previous studies that considered social capital used it in the form of single dimension or aggregate index (Ngigi et al., 2012). These studies were unable to show how different components of individual social capital such as bonding, bridging and linking influence the choice of adaptation. Further, most studies on social capital in the climate change arena are qualitative in nature and focus on group and 4 institutional perspective (Sekine et al., 2009; Pelling, 2003; Pelling & High, 2005; Adger, 2003). This study used a mixed methodology approach to bridge the qualitative and the quantitative realms

Answer the following questions:

- 2.2.1 What would be an appropriate title or topic for this research? (2)
- 2.2.2 Construct the problem statement for this study. (3)
- 2.2.3 Construct two research objectives/research questions for this study. (4)

2.2.4 Suppose this is a mixed method research design, illustrate the mixed research approach model that is most appropriate. (3)

Question 3

3.1 Read the scenario below and answer the following questions.

Supposed you are asked to conduct an urban agriculture feasibility study by the City of Windhoek. You are given permission to do quantitative approach, experimental design, on selected plots given to you by the city of Windhoek because you requested for these plots. You are planting various vegetables using various fertilizers and different quantities of water to see which ones are most feasible for Windhoek soils. You have 60 plots samples for your experiments. You are asked to present your methodology to the City of Windhoek. **Answer the following question in a way that you would need to present it to the City of Windhoek management and council.**

3.1.1 Describe in detail and include illustrations in your answers, how you would use Salomon 4 ways experimental design. (8)

3.2 Read the scenario below and answer the following questions.

Supposed you are doing your research for a post-graduate degree you enrolled at UNAM (MSc. Geography and Environmental Studies). Your study focuses on waste management and environmental health among informal settlement households and residents from Katima Mulilo Town. The total households in the informal settlement is estimated to be around 1,250 with a population of 5,280 residents. You are defending your proposal to the Department of environmental science. You have decided on a quantitative research approach, **answer these questions as part of your methodology that you are presenting to the panel.**

3.2.1 Identify the most appropriate research design and give rationale for your answers. (3)

3.2.2 Describe the most appropriate method and technique for this research study. (3)

(b). Describe your rationale for this answer/ why you chose this method and technique. (3)

3.2.3 Identify the most appropriate sampling strategy/method for this study and describe in detail how you would select individuals in this survey. (4)

Question 4

Read the scenario below and answer the following questions.

Supposed you are doing your research for a post-graduate degree you enrolled at UNAM (MSc. Geography and Environmental Studies). Your study focuses on farmers from Kavango West Region to understand their lived experiences with locust outbreak and its impact on food security. You have selected to work on 2 constituencies that have a combined total of 4,200 households. You are defending your proposal to the Department of environmental science. You have decided on the qualitative research approach. **Answer these questions as part of your methodology that you are presenting to the panel.**

4.1 Your method is Focus Group Discussion, describe in detail how you would organize and carry out your focus group discussions? (6)

4.2 Describe how you would sample to select individuals to participate on the focus group discussions? (3)

4.3 Identify the most appropriate sampling strategy for the focus group discussions. (2)

SECTION B: Cartography

[40]

Question 5

5.1 Name and describe three categories of maps and illustrate size ranges for each category. (4)

5.2 Maps do not visualize everything that is found on earth surface for a given area. They are an abstraction of reality. Explain four factors that make up the abstraction process of map making. These factors, if applied effectively would make you a meticulous cartographer. (8)

5.3 All maps are concerned with two primary elements: locations and attributes. From these elements, about four relationships can be formed. Briefly discuss these relationships. (8)

5.4 Name and briefly discuss any three methods of generalization when compiling thematic maps. (6)

5.5 Accuracy and reliability are two aspects of cartography that every geographer must know and apply. Briefly describe why (i) sources and credits, (ii) copyright and liability issues are important in map-making. (6)

Question 6

6.1 There is a substantial amount of evidence which supports the conclusion that the earth is not a perfect sphere. Briefly discuss such forms of evidence. (3)

6.2 Highlight the distinction between Authalic and Geodetic latitudes. (2)

6.3 List the three major families of projections. (3)

TOTAL MARKS: [100]