



GWANDA STATE UNIVERSITY

FACULTY OF ENGINEERING AND ENVIRONMENT

DEPARTMENT OF GEOGRAPHY AND ENVIRONMENTAL SCIENCE

RESEARCH METHODS IN GEOGRAPHY AND ENVIRONMENTAL SCIENCE

LES2101

Final Examination Paper

April 2024

This examination paper consists of 2 pages

Time Allowed: 3 hours

Examiner's Name: Mr. S. Zhou

INSTRUCTIONS

1. Answer any **FOUR** questions
2. Each question carries 25 marks.
3. Credit will be given to answers that are clear, illustrated, concise, and grammatically well-constructed.

1. You have been engaged as a researcher by a local non-governmental organization that deals with environmental issues in rural areas. Design a research proposal to address any environmental challenge you have observed in a rural community. Your proposal should include all the core components of a proposal. [25]
2. With reference to practical examples from Geography and Environmental science field, differentiate qualitative from quantitative research. [25]
3. Critically examine any **four** distinct ethical principles which can be used in research. [25]
4. Examine any **two** probability and **two** non-probability sampling methods that can be used in research. [25]
5. a). For the following data set, compute the measures of central tendency. [6]

4 7 6 4 9 8
- b) i. Use the information in Table 1 below to construct a pie chart: [8]

Table 1

Item	Amount (USD)
Clothes	200
Rent	100
Transport	150
Clothes	250

- ii. Describe the results in (i). [5]
 - iii. Outline the merits and demerits of using a pie chart when presenting data. [6]
6. The table 2 below shows temperature received in winter and the sales of jerseys on 10 consecutive days.

Table 2

Day	1	2	3	4	5	6	7	8	9	10
Temperature	7	11	8	10	12	9	8	16	12	14
Number of Jerseys sold	82	64	100	69	70	92	80	32	76	42

- i. Draw a scatter diagram and comment on it [5]
- ii. Compute the product-moment correlation coefficient (r) and comment [10]
- iii. Compute the Spearman Rank correlation coefficient [10]

THE END