



# **GWANDA STATE UNIVERSITY**

**FACULTY OF ENGINEERING AND ENVIRONMENT**

**DEPARTMENT OF GEOMATICS AND SURVEYING**

**RESEARCH METHODS**

**EGS3104**

**Final Examination Paper**

**August 2021**

This examination paper consists of 3 pages

**Time Allowed: 3 hours**

**Total Marks: 100**

**Examiner's Name: Dr. C. Paradzayi**

## **INSTRUCTIONS**

Answer ALL questions

<b>QUESTION 1: RESEARCH METHODS [20]</b>				
1	a	i	What is scientific research?	1
		ii	List and explain some of the research methods used in scientific research	3
	b		Write brief notes on how the following ways are used in research to gain new knowledge	
		i	Categorise	2
		ii	Describe	2
		iii	Explain	2
		iv	Evaluate	2
		v	Compare	2
		vi	Correlate	2
		vii	Predict	2
		viii	Control	2
<b>QUESTION 2: PROFESSIONAL AND WORKPLACE REPORTS [20]</b>				
2	a		Compare and contrast quantitative and qualitative reports and give situations where each is appropriate	6
	b		Mataranyika Informatics has acquired land for the construction of its new Headquarters in Gwanda. You have been tasked with the undertake a topographical survey and determine the suitability of the proposed site for the new development. The board members expect you to table a business report for their consideration.  Outline what should be contained in the following sections of the business report:	
		i	Title	2
		ii	Summary	2
		iii	Table of contents	2
		iv	Introduction	2
		v	Methods	2
		vi	Findings	2
		vii	Recommendations	2
<b>QUESTION 3: SCIENTIFIC WRITING [20]</b>				
			As part of your final year of study, you are expected to research and present your findings in the form of a dissertation for a research problem of your choice.	12
	a		Give a title of your expected research and justify this title	2
	b		Give a brief overview (not more than one paragraph) of what each of the following sections will contain, relative to your research topic in 3(a)	
		i	Introduction	3
		ii	Literature review	3
		iii	Theoretical framework	3
		iv	Research design/methods	3
		v	Analysis of data	3

		vi	Conclusion and Recommendations	3
<b>QUESTION 4: SCIENTIFIC MANUSCRIPTS [20]</b>				
4	a		List the ideal headings in a summary of each paper or article which a researcher has subjected to a review.	6
	b		Describe the seven different tests researchers can use to judge the quality of the content from web sources.	14
<b>QUESTION 5: APPLICATION [20]</b>				
5			Use a well annotated diagram, to describe the structure of a typical research project in a Geomatics and Surveying discipline of your choice.	20

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**END OF EXAMINATION**