



GWANDA STATE UNIVERSITY

FACULTY OF ENGINEERING AND ENVIRONMENT

DEPARTMENT OF GEOMATICS AND SURVEYING

MINE SURVEYING

EGS 3109

Examination Paper

September 2023

This examination paper consists of 2 pages

Time Allowed: 3 hours

Total Marks: 100

Examiner: F. Shumba

INSTRUCTIONS

Answer all Questions

QUESTION 1

- a) Differentiate, with the aid of examples, Procedural and Substantive Law?

10 Marks

- b) In your own words, detail the legal procedure for the registration of blocks?

10 Marks

QUESTION 2

With the aid of a hand drawn cross Section of a sub-surface mine, define the following typical underground mine anatomy: -

- a) Shaft, adit.
b) Winzes, raises, crosscut, strike
c) Level, footwall and hanging wall

25 Marks

QUESTION 3

What are the differences and similarities between-?

- a) Tachometric
b) Global National Satellite System
c) Point Cloud Data?

15 Marks

QUESTION 4

Explain the following: -

- a) Elastic and inelastic deformation
b) Deformation Vectors, giving examples.
c) Internal and External Deformation.

20 Marks

QUESTION 5

- a) What is pre-analysis in Deformation Monitoring and outline a detailed procedure and expected outcomes of pre-analysis?

20 Marks

END OF PAPER

100 MARKS