



**ZIMBABWE EZEKIEL GUTI UNIVERSITY
COLLEGE FOR LIFELONG LEARNING**

**FACULTY OF SCIENCE, TECHNOLOGY, AGRICULTURE AND
FOOD SYSTEMS DEVELOPMENT**

**DEPARTMENT OF INFORMATION SYSTEMS
EXAMINATION PAPER**

COURSE CODE : GISRS 125
COURSE TITLE : Image Analysis
SPECIAL REQUIREMENTS : None
DURATION : 2 Hours
LEVEL : 1.2
DATE : June 2024

12 JUN 2024

INSTRUCTIONS TO CANDIDATES:

1. This paper consists of 2 sections
2. Answer **ALL** Questions in SECTION A and in SECTION B
3. Start each Question on a new page

There are 2 printed pages for this question paper

Examination Paper 1

Section A: Short Answer Questions

1. Explain the interaction of electromagnetic radiation with Earth's surface and its significance in remote sensing. [10]
2. Describe the importance of spectral bands in satellite imagery analysis. [15]

Section B: Essay Questions

1. Discuss the process and challenges of georeferencing and orthorectification in image preprocessing. [25]
 2. Evaluate the techniques of noise reduction in image analysis and their impact on the quality of the final image. [25]
 3. Explain the concept of false-color imagery and its applications in enhancing the visualization of satellite data. [25]
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