



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

*Faculty of Artefactual Design & Futures.*

**EXAMINATION PAPER**

**COURSE CODE** : DSDM121.  
**COURSE TITLE** : GIS FOR URBAN PLANNING  
**SPECIAL REQUIREMENTS** : NONE  
**DURATION** : 2 Hours  
**LEVEL** : 1.1  
**DATE** : 24 NOV 2025

**INSTRUCTIONS TO CANDIDATES:**

1. No cell phones are allowed in the examination venue.
2. Question 1 (Section A) is compulsory. In Section B, choose and answer any Two (2) questions.
3. The number of marks for each question or part question is shown in brackets [ ]
4. Use relevant examples to support your answers.
5. Begin each answer on a new page.
6. **DO NOT OPEN THIS PAPER UNTIL THE INVIGILATOR INSTRUCTS**

## SECTION A. COMPULSORY QUESTION

### QUESTION 1

- (a) Define a geodatabase (2)
- (b) Differentiate between
- i) Spatial and temporal resolution
  - ii) Raster and vector data
  - iii) A passive and active sensor
  - iv) Hyperspectral and multi-spectral remote sensing images (4)
- c) Briefly describe the four analytical capabilities of GIS (8)
- d) Which information can be derived from a digital elevation model? (2)
- e) Which vector type (point, line or polygon) best represents the following features and why?
- i) elevation
  - ii) roads
  - iii) temperature
  - iv) Soil units

## SECTION B

- 2) Examine the utility of Geographic Information Systems (GIS) in urban planning and development. (20)
- 3) Evaluate the different variables of visual image interpretation. (20)
- 4) Examine the different characteristics of remote sensing images. (20)
- 5) Examine the utility of spatial databases in planning and development. (20)

END OF PAPER

4/0 (PM)