



ZIMBABWE EZEKIEL GUTI UNIVERSITY

FACULTY OF SCIENCE, TECHNOLOGY, AGRICULTURE AND FOOD SYSTEMS DEVELOPMENT

DEPARTMENT OF INFORMATION SYSTEMS

EXAMINATION PAPER

DIPLOMA IN GEOGRAPHICAL INFORMATION SYSTEM

COURSE CODE : GISRS 112

COURSE TITLE :: REPRESENTING GEOGRAPHIC PHENOMENA

SPECIAL REQUIREMENTS : None

DURATION : 2 Hours

LEVEL : 1.1

DATE : 2025

29 JUL 2025

INSTRUCTIONS TO CANDIDATES:

Answer ALL questions

Question 1

- (a) Define Geographic Information Systems (GIS) and explain its key components. **[8 Marks]**
- (b) Discuss three real-world applications of GIS, providing examples. **[12 Marks]**

Question 2

- (a) Differentiate between raster and vector data models in GIS, providing two examples of each. **[8 Marks]**
- (b) Explain the advantages and disadvantages of using raster data models in GIS. **[12 Marks]**

Question 3

- (a) What is a coordinate system in GIS, and why is it important? **[10 Marks]**
- (b) Describe the differences between geographic and projected coordinate systems. Provide examples of when each would be used. **[10 Marks]**

Question 4

- (a) Explain the process of collecting geographic data using GPS. Include the steps involved in preparing, collecting, and importing GPS data into GIS software. **[12 Marks]**
- (b) Discuss the challenges that may arise during field data collection using GPS. **[8 Marks]**

Question 5

- (a) Explain the role of attribute data in GIS and describe its different types. **[8 Marks]**
- (b) Discuss the importance of spatial databases in managing geographic data. **[10 Marks]**

****END OF EXAMINATION****