



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 : GISRS11
COURSE TITLE : INTRODUCTION TO GEOGRAPHIC
INFORMATION SYSTEMS
SPECIAL REQUIREMENTS : None
DURATION : 2 Hours
LEVEL : 1.1
DATE : 2024 25 NOV 2024

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****