



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR
THIRD YEAR SECOND SEMESTER**

**SCHOOL OF NATURAL RESOURCE,
ENVIRONMENTAL STUDIES AND
AGRICULTURE**

**BACHELOR OF URBAN AND REGIONAL
PLANNING**

**COURSE CODE: URP 3233-1
COURSE TITLE: GIS APPLICATIONS**

DATE: 4TH JUNE , 2024

TIME: 830-1030 HOURS

INSTRUCTIONS TO CANDIDATES

Answer **ALL** questions in section **A** and any other **THREE** in section **B**.

This paper consists of 2 printed pages. Please turn over

SECTION A – 20 MARKS

- Q1. Define geodatabases and explain its importance in urban and regional planning. **(5 marks)**
- Q2. Explain the process of data capture in GIS, including digitizing, editing and scanning **(5 marks)**
- Q3. Discuss the role of GIS in decision-making processes related to urban and regional planning. **(5 marks)**
- Q4. Describe the process of setting up a GIS system and the factors to consider. **(5 marks)**

SECTION B – 30 MARKS

- Q5. Discuss the historical development of GIS and its evolution as a powerful tool in urban and regional planning. Provide examples of how GIS has been instrumental in addressing various planning challenges. **(10 marks)**
- Q6. Describe the process of database creation and management in GIS. **(10 marks)**
- Q7. Analyze the differences between various GIS software packages available in the market. Evaluate their strengths and weaknesses in terms of data handling, analysis capabilities, and user-friendliness for urban and regional planning applications. **(10 marks)**
- Q8. Discuss how the Integration of GIS with GPS and remote sensing improve data collection, analysis and decision-making in urban planning. **(10 marks)**

end//