



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR
THIRD YEAR FIRST SEMESTER**

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

BACHELOR OF URBAN AND REGIONAL PLANNING

**COURSE CODE: URP 3125-1
COURSE TITLE: INTRODUCTION TO
SURVEYING**

DATE: 14TH DECEMBER, 2023

TIME: 1430-1630 HOURS

INSTRUCTIONS TO CANDIDATES

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

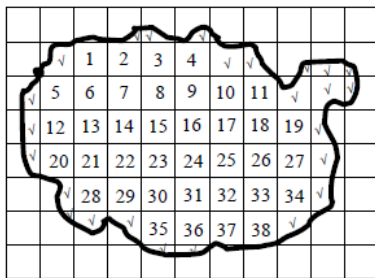
This paper consists of 2 printed pages. Please turn over

SECTION A – 20 MARKS

- Q1. Briefly describe how any four (4) instruments in Chain surveying are used **(4 marks)**
- Q2. What are the two principles of land surveying? **(4 marks)**
- Q3. The magnetic bearing of Line PQ is $124^{\circ}35'$. Find its true bearing, if the magnetic declination is $10^{\circ}10'W$. **(2 marks)**
- Q4. Explain six (6) characteristics of contours **(6 marks)**
- Q5. Describe the following terms as used in land surveying:
i. Horizontal line
ii. Line of collimation **(2 marks)**
- Q6. Discuss the types of photographic surveying **(2 marks)**

SECTION B – 30 MARKS

- Q7. Describe four (4) methods of plane table surveying **(10 marks)**
- Q8. Discuss the various classification of survey **(10 marks)**
- Q9. State the differences between stadia hair method and tangential method as used in tachometric surveying **(10 marks)**
- Q10. A). Discuss three methods of the calculating area of irregular shaped features **(9 marks)**
B). Using the figure below, calculate the area of the lake in square Kilometers, assuming that each square grid is 1cm by 1cm and the map scale is 1: 50,000 **(1 marks)**



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