



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2018/2019 ACADEMIC YEAR**

SECOND YEAR FIRST SEMESTER

**SCHOOL OF TOURISM AND NATURAL
RESOURCE MANAGEMENT
BA GEOGRAPHY**

COURSE CODE: GEO 2112

COURSE TITLE: REMOTE SENSING

DATE: 7TH DECEMBER 2018

TIME: 1100 - 1300HRS

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 (25 MARKS)

1. What is a remote sensing platform? Explain with two points the importance of airborne remote sensing platforms **(4 marks)**
2. Explain any two factors to consider when collecting aircraft multispectral data **(4 marks)**
3. Explain any two airborne remote sensing systems and their characteristics **(4 marks)**
4. Explain the key components of a radar remote sensing system **(3 marks)**
5. Explain why hyperspectral remote sensing is important to geological applications **(2 marks)**
6. Explain the major steps in digital image processing **(6 marks)**
7. Briefly discuss the common active sensors used in remote sensing? **(2 marks)**

SECTION B (45 MARKS)

8. Write short notes on the following:-
 - (a) Image processing **(7 marks)**
 - (b) Geospatial tools for resource monitoring and mapping **(8 marks)**
9. (a) Illustrate how remote sensing products may be used in resource surveys **(10 marks)**
(b) Choose a specific resource and explain why it's possible to use remote sensing to monitor the resource **(5 marks)**
10. Satellite remote sensing systems form an advanced remote sensing technology compared to airborne remote sensing systems. Give reasons why we still use airborne remote sensing systems **(15 marks)**
11. (a) A large scale farmer near Limuru wishes to monitor the soil moisture content of his field using remote sensing techniques. As an expert, give two reasons advising on which type of remote sensing is the most suitable and why **(5 marks)**
(b) Explain the advantages of this type of remote sensing in detail **(10 marks)**

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