



MAASAI MARA UNIVERSITY

**SUPPLEMENTARY UNIVERSITY EXAM EXAMINATIONS
2021/2022 ACADEMIC YEAR
THIRD YEAR FIRST SEMESTER**

**SCHOOL OF NATURAL RESOURCE, TOURISM AND
HOSPITALITY**

**BACHELOR OF ENVIRONMENTAL STUDIES
(BIOLOGY AND HEALTH)**

COURSE CODE: EEM 3123

COURSE TITLE: REMOTE SENSING AND IMAGE

INTERPRETATION

DATE: 7 TH APRIL, 2022

TIME: 11:00 - 1:00 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: 25 MARKS - ANSWER ALL THE QUESTIONS IN THIS SECTION

1. Differentiate between the airborne and spaceborne platforms
(2 marks)
2. What is a multispectral scanner used in remote sensing? Describe in brief the operational procedure of a multispectral scanner. (5 marks)
3. You have created a land cover map from a Landsat TM image of a county in the rift valley region of Kenya. The resulting image product did not overlay a topographic map of the area. Identify the problem with the image product and a potential source of the problem (2 marks)
4. A manager of a Department of Land Resources is charged with monitoring an area of a county owned land that is being leased by a rancher for pasture land. List 2 areas of information obtainable from remotely sensed data and how the manager would use them to do the job (4 marks)
5. An archeologist is searching for the outline of a settlement that has long since been abandoned in an area largely free from heavy tree cover. He wants to use remotely sensed data to assist with the search. Describe two possible solutions. (4 marks)
6. Why are weathering and erosion considered destructive forces?
(5 marks)
7. Describe any three uses of black-and-white films (3 marks)

SECTION B: 45 MARKS -CHOOSE ANY THREE (3) QUESTIONS

8. Discuss some examples of the application of remote sensing in geomorphology. (15marks)
9. Discuss the geological work and landforms produced by wind
(15marks)
10. Discuss stereoscopic photography and how it is used in geological applications (15 marks)
11. Using a case study, assess the relative importance of the different physical factors influencing a landscape shaped by the action of ice sheets (15 marks)
12. Enumerate four specific examples of airborne remote sensing systems? Discuss at least four advantages and three limitations of using airborne these systems (15 marks)

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