



KISII UNIVERSITY
UNIVERSITY EXAMINATIONS

SECOND YEAR EXAMINATION FOR THE AWARD OF THE
DEGREE OF BACHELOR OF EDUCATION ARTS
SECOND SEMESTER 2021/2022
[JUNE-SEPTEMBER, 2022]

GEOG 227: REMOTE SENSING AND THE ENVIRONMENT

STREAM: Y2S2

TIME: 2 HOURS

DAY: WEDNESDAY, 3:00 – 5:00 PM

DATE: 07/09/2022

INSTRUCTIONS

- 1. Do not write anything on this question paper.***
- 2. Answer question ONE (Compulsory) and any other TWO questions.***

QUESTION ONE

- Explain your understanding of the term Remote Sensing (RS).(2 Marks)
- Elaborate on the principles of remote sensing. (5 Marks)
- Explain the relationship between remote sensing and Geographic Information Systems. (5 Marks)
- Outline and explain the steps in remote sensing. (8 Marks)
- Write notes on the electromagnetic spectrum. (10 Marks)

QUESTION TWO

Describe the history of remote sensing focussing on the major milestones.
(20 Marks)

QUESTION THREE

- Explain the random noise removal techniques. (12 Marks)
- Write notes on image restoration process. (8 Marks)

QUESTION FOUR

Discuss how remote sensing is applied in environmental and natural resources management.
(20 Marks)

QUESTION FIVE

- a. What is image enhancement? (2 Marks)
- b. Outline and explain any four methods of image enhancement. (12 Marks)
- c. What is image rectification? (2 Marks)
- d. What is image restoration? (2 Marks)
- e. Explain what random noise in digital image is. (2 Marks)