

CHUKA

UNIVERSITY



UNIVERSITY EXAMINATIONS

RESIT/SPECIAL EXAMINATION

**SECOND YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR
OF NATURAL RESOURCES MANAGEMENT**

NARE 352: REMOTE SENSING

STREAMS: BSC (NARE) Y2S1

TIME: 2 HOURS

DAY/DATE: MONDAY 16/11/2020

2.30 P.M. – 4.30 P.M.

INSTRUCTIONS:

- **Answer all questions in section A and any other TWO questions in section B.**
- **Do not write on the question paper.**

SECTION A (30 Marks)

1. Describe the following terms as used in remote sensing (5 marks)
 - a) Air station
 - b) Blackbody
 - c) Tone
 - d) Spectral signature
 - e) Corresponding images
2. Explain various ways in which the electromagnetic radiation interacts with the atmosphere (10 marks)
3. Using a suitable diagram describe the electromagnetic radiation. (7 marks)

4. Match the following satellite systems to their corresponding natural resource of survey.

(3 marks)

Satellite system	Resource surveyed(observed)
NOAA(1-5)	
SPOT	
JASON 1	

5. Given that an aerial vertical photograph is taken with a camera focal length of 76mm, a terrain elevation of 250 M above and a flying height of 1390 M. calculate the scale of such a photograph.

(3 marks)

6. Name and give a distinction between the two types of remote sensing techniques.

(2 marks)

SECTION B (40 MARKS)

7. Using suitable diagrams explain various ways in which aerial photographs may be classified. (20 marks)
8. Describe the primary remote sensing regions of Electromagnetic radiation using an appropriate illustration. (20 marks)
9. Discuss the importance of remote sensing in natural resources management. (20 marks)
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