



**MASENO UNIVERSITY**  
**UNIVERSITY EXAMINATIONS 2013/2014**

**FIRST YEAR FIRST SEMESTER EXAMINATIONS FOR THE DEGREE  
OF BACHELOR OF SCIENCE IN GEOSPATIAL INFORMATION  
SCIENCE WITH INFORMATION TECHNOLOGY  
(MAIN CAMPUS)**

**PGS 112: REMOTE SENSING**

*Date: 22<sup>nd</sup> November, 2013*

*Time: 8.30 – 10.30am*

**INSTRUCTIONS:**

- Answer QUESTION ONE and any other TWO QUESTIONS
- Sketch Maps and diagrams should be used whenever appropriate.

**PGS112: REMOTE SENSING (Main campus)**

**Answer question ONE and any other two**

**Sketch maps and diagrams should be used whenever appropriate**

1. a) Describe the platforms used in the acquisition of remote sensing data (6 marks)  
b) Describe three possible limitations of remote sensing (6 marks)  
c) Explain the difference between optical and microwave remote sensing (8 marks)  
d) Explain why field observation is important in image interpretation (4 marks)  
e) Explain three results of energy interacting with the atmosphere (6 marks)
2. Describe the components of ideal remote sensing systems (20 marks)
3. Discuss the limitations of real remote sensing systems (20 marks)
4. Discuss the merits and demerits of using remote sensing data in developing countries (20 marks)
5. a) Explain the principle of whiskbroom scanner (10 marks)  
b) Describe the elements used to interpret a aerial photographs (20 marks)
6. a) Analyze the challenges of developing countries in using remote sensing images for urban planning (20 marks)