



**MASENO UNIVERSITY**  
**UNIVERSITY EXAMINATIONS 2016/2017**

**FIRST YEAR FIRST SEMESTER EXAMINATIONS FOR  
THE DEGREE OF MASTER OF SCIENCE IN  
ENVIRONMENTAL SCIENCE**

**CITY CAMPUS**

**NES 808: ENVIRONMENTAL INFORMATION SYSTEM**

Date: 29<sup>th</sup> November, 2016

Time: 2.00 - 5.00 pm

---

**INSTRUCTIONS:**

- Answer ANY FOUR questions.



---

**NES 808: ENVIRONMENTAL INFORMATION SYSTEM**

Time 3 hrs

Date \_\_\_\_\_

**INSTRUCTIONS**

Answer any **FOUR** questions

1 a) Discuss the application of spatial data in management of environmental resources. (10 Marks)

b) Elucidate components of geographic Information System (5 Marks)

2) Discuss advantages and disadvantages of raster and vector data as used in Geographical Information System. (15 Marks)

3 a) Discuss interpretation elements that are used in aerial photo interpretation. (12 Marks)

b) Elucidate the relevance of spectral signature in remote sensing. (3 Marks)

4 a) Elucidate steps involved in making visual information in an image useful in provision of spatial information. (5 Marks)

b) Discuss the main benefits of using Geographic Information System in managing environmental resources. (10 Marks)

5 a) Describe spatial, spectral and temporal resolution as used in remote sensing. (9 Marks)

b) Describe how microwave remote sensing works and its advantage over the rest. (6 Marks)

6) Discuss advantages and disadvantages of file types used in organizing attribute data as used in Geographic Information System. (15 Marks)