



MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2015/2016

**FIRST YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE IN GEOSPATIAL INFORMATION SCIENCE
WITH INFORMATION TECHNOLOGY**

CITY CAMPUS - REGULAR

PGS 113: SPATIAL DATA SOURCES AND SPATIAL DATA TYPES

Date: 9th December, 2015

Time: 9.00 - 11.00 am

INSTRUCTIONS:

- Answer question ONE and any other TWO questions.



PGS 113: SPATIAL DATA SOURCES AND SPATIAL DATA TYPES

INSTRUCTIONS:

Answer question ONE, and any other TWO questions listed below. All questions have equal marks.

1. a) Define the following terms giving examples
 - i) Geographic phenomenon (5 marks)
 - ii) Geographic field (5 marks)
 - iii) Geographic objects (5 marks)
- b) Compare and contrast the merits and demerits of vector and raster data formats. (15 marks)
2. Discuss the two major sources of spatial data giving examples in each. (20 marks)
3. Compare and contrast the structure of vector and raster data models using well labeled diagrams. (20 marks)
4. Among the various components of a geographic information system (GIS), data plays the most critical role. Discuss. (20 marks)
5. a) Write short notes on topological rules associated with points, lines and polygons. (10 marks)
- b) Using suitable illustrations, discuss the various topological errors associated with the different spatial features in GIS. (10 marks)
6. Giving examples, discuss some of spatial data acquisition techniques and methods. (20 marks)