

# MASENO UNIVERSITY UNIVERSITY EXAMINATIONS 2013/2014

FIRST YEAR FIRST SEMESTER EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN GEO-SPATIAL INFORMATION SCIENCE WITH INFORMATION TECHNOLOGY (MAIN CAMPUS)

## PGS 113: SPATIAL DATA SOURCES AND SPATIAL DATA TYPES

Date: 22rd November, 2013

Time: 8.30 - 10.30 a.m.

#### INSTRUCTIONS:

- Answer Question ONE (COMPULSORY) and any other TWO questions.
- Sketch maps and diagrams should be used as deemed necessary.

## QUESTION 1: (GIS DATA SOURCES)

[30 Marks]

- Differentiate between the term data and information [4 Marks]
- Give three sources of GIS data [6 Marks]
- What makes data spatial? [4 Marks]
- Describe two types of geographical phenomena giving two examples of each
   [6 Marks]

### QUESTION 2: (GIS DATA PREPARATION)

[20 Marks]

- List two data format supported by ArcGIS software [2 marks]
- 2. Describe the steps you can use to convert a raster data into vector data

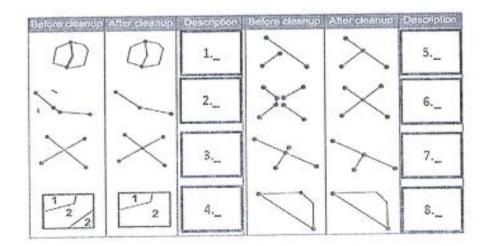
[4 marks]

3. Give two examples of discrete data.

[2 marks]

4. State two sources of data errors in GIS

- [2 marks]
- 5. In the figure below, fill in the blank spaces labeled number 1 8 under the "description column" with the correct description of a data clean up activity illustrated by the drawings under "before cleanup" and "after cleanup" columns. [10 Marks]



1. What is a database management system? [4 M 2. Give two reason why Database Management System is used in GIS [4 ma 3. State three types of databases in GIS [6 ma 4. Define and illustrate the following terms: relation, tuples, attribute. [6 ma 6 ma 6 ma 7 mass]  QUESTION 5: (SPATIAL DATA ANALYSIS) [20 m 1. Define spatial interpolation. [4 M 2. State two spatial selection queries used in GIS data analysis [4 M 3. List two measurement operation used in GIS [4 M 4. State two spatial selection queries [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighborhood function you can perform using GIS [4 M 5. State two Neighb	[arks]
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