



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

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

**CITY CAMPUS**

**PGS 311: SPATIAL DATA INFRASTRUCTURE**

Date: 21<sup>st</sup> November, 2016

Time: 9.00 - 12.00. noon

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**INSTRUCTIONS:**

- Answer question ONE and any other TWO questions.



**PGS 311: SPATIAL DATA INFRASTRUCTURE**

**INSTRUCTIONS:**

**Answer QUESTION ONE and any other two Questions**

1.
  - a. Briefly explain what is meant by Spatial Data Infrastructure (SDI). (4 marks)
  - b. Discuss 6 components of spatial data infrastructure (18 marks)
  - c. What has led to the establishment of Global Spatial Data Infrastructure? (8 marks)
2. Give reasons as to why Kenya government needs to set a national spatial data infrastructure. (20 Marks)
3. What benefits would accrue to the county governments if Kenya government developed a National SDI. (20 Marks)
4. With aid of diagram, describe the architecture of a typical SDI (20 marks).
5.
  - a. What is metadata? (2 marks)
  - b. Describe three levels of metadata for SDI (8 marks)
  - c. Explain five functions of a clearinghouse in an SDI. (10 marks)
6. Discuss, citing relevant examples how "Huduma Centers" have benefited public service delivery in Kenya. (20 marks)