UNAM
UNIVERSITY OF NAMIBIA

FACULTY	AGRICULTURE, ENGINEERING AND NATURAL SCIENCES		
DEPARTMENT	ENVIRONMENTAL SCIENCE		
SUBJECT	LAND ADMINISTRATION AND GIS		
SUBJECT CODE	HGLS3612		
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DURATION	3 HOURS	MARKS	100

Supplementary/Special Examination

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This question paper consists of three (3) pages excluding this front page.

Instructions
1. Work in an orderly way and present your work as neatly as possible.
2. Mark your questions correctly and clearly.
3. Answer all questions.

QUESTION 1   [15]

1.1 State whether each of the following statement is true or false:

   a) Land tenure is linked to social, economic and political structures.   (1)
   b) Spatial Data Infrastructure (SDI) allows the aggregation of land information from
      local to national level.   (1)
   c) Relying on a single-toll solutions to remedy complex situations is one of the benefits
      of land administration system design.   (1)
   d) The design of land administration systems in some countries is affected by different
      legal traditions as well as colonial experiences.   (1)
   e) Subtypes are a subset of features in a feature class, or objects in a table, that share the
      same attributes and are used as a method to categorize your data.   (1)
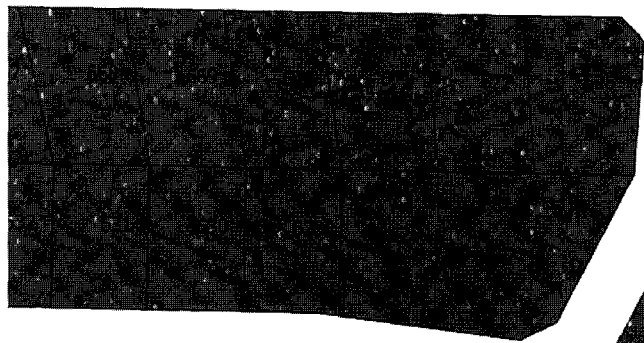
1.2 Define the following terms:

   a) Transfer rights   (2)
   b) A Deed   (2)
   c) Land registration   (2)
   d) Formal property rights   (2)
   e) Unique Parcel Identifier   (2)

QUESTION 2

2.1 The open geospatial consortium (OGC) standards are classified into four classes that is, for accessing geospatial data, processing, discovering as well as for encodings. Which of the web services are used for data processing and discovering geo-resources respectively.

(2)

2.2 Highlight any three principles of land administration which set boundaries to make local decisions for land managers and Land Administration System (LAS) designers.   (3)

2.3 Security of tenure and management of land disputes are two of the traditional benefits of land administration system (LAS), what is your understanding of these benefits?   (4)

2.4 Highlight the five components of a Spatial Data Infrastructure (SDI).   (5)

2.5 Contrast between the Cadastral 'Fixed' and 'General' boundaries.   (4)

2.6 Distinguish between the following three terms: Rights, Restrictions and Responsibilities.

(6)

2.7 Briefly discuss the land management paradigm as one of the ingredients in land administration system (LAS) development.   (6)

2.8 You (as a land information expert) are tasked to explain to a group of students how subdivision of parcels can be done in the digital Land Information System (LIS) using a GIS software (e.g. ArcGIS). With the help of figure 1 below, which is showing an extract of erven/parcels from a Cadastral Land Information System (CLIS), use Erf No. 627 as an example of a parcel which is going to be subdivided into three smaller erven, to explain how this process is done.   (5)

Figure 1. Cadastral parcels

3.1 Explain how the two types of registration systems, deeds registration and a title registration systems, are different from one another. (5)

3.2 Briefly discuss any three land tenure interests as set out by the Food and Agriculture Organisation of the United Nations. (9)

3.3 The core tenure processes varies from one country to another but there are some processes that are common to most countries. Discuss any four of the core tenure processes that are common to most countries. (12)

3.4 Outline the three categories of tools in the land administration toolbox and provide three example of such tools from each category. (12)

3.5 During your study visit at the Directorate of Survey and Mapping, it was indicated that examination of a survey diagram (cadastre) takes about seven days to complete. Briefly describe what happens at each of the six steps involved in the said examination. (12)