

UNIVERSITY OF SOUTH AUSTRALIA

DIVISION OF INFORMATION TECHNOLOGY, ENGINEERING AND THE ENVIRONMENT

School of Geoinformatics, Planning and Building

Semester 1, 2002

Land Information Management N: GEOE 4007

Time Allowed : 3 hours + 10 minutes reading time

General Instructions to Candidates

Total marks = 100

This examination paper contains five (5) questions. Candidates are required to attempt FOUR questions only.

All questions are of equal value.

Please ensure that the front of the answer book is completed with your name, student I.D. number, program, course name and section of the examination (if applicable).

Attempt any FOUR (4) of the following FIVE (5) questions.

Question 1 [25 marks]

- a) Describe the main attributes required for an efficient land parcel identifier. Chose an identifier used in South Australia and assess its strengths and weaknesses in relation to these criteria. [10 marks]
- b) What are the major elements of data quality? [8 marks]
- c) What are the main requirements for the successful introduction of LIM policies and procedures into an organisation? [7 marks]

Question 2 [25 marks]

- c) What are the benefits of data standards for geographic information? Outline the obstacles to the successful introduction of data standards by data producers and the adoption of these standards by data users. [12 marks]
- d) What is data custodianship? Outline the seven principles of custodianship and describe the benefits that can be expected through the introduction of these principles. [13 marks]

Question 3 [25 marks]

- d) Describe the concept of the Property Cadastre. Why does the Property Cadastre provide effective integration between digital cadastral data and valuation data in SA? [10 marks]
- e) Briefly explain five key objectives of land information management (LIM). [5 marks]
- f) Why is it important to document the fitness for use of digital datasets? [5 marks]
- e) What privacy issues are associated with public access to land-related data? [5 marks]

Question 4 [25 marks]

- a) Projects undertaken by the Australian Government in developing countries (e.g. Indonesia, Lao, Greece) have highlighted the need for the establishment of modern cadastres. On the basis of this experience, summarise the main justifications for establishing modern cadastres in developing countries. [15 marks]
- b) Describe the three components of the Survey Database. [5 marks]
- c) Describe the key three elements of the strategic planning process for effective land information management.

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Question 5 [25 marks]

- a) Outline the general trends regarding the development of coordinated cadastres and digital lodgement in Australia citing examples from various State jurisdictions. [15 marks]
- b) Describe the surveying problems identified in Guam that led to the introduction of a new geodetic network in 1994. [5 marks]
- c) What are the five main theoretical phases of the land management process?

5 marks]