



**PAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF NATURAL RESOURCES AND SPATIAL SCIENCES

DEPARTMENT OF GEO-SPATIAL SCIENCES AND TECHNOLOGY

QUALIFICATIONS: BACHELOR OF GEOMATICS, DIPLOMA IN GEOMATICS	
QUALIFICATIONS CODES: 07BGEM, 06DGEM	QUALIFICATIONS LEVEL: 7 - 07BGEM, 6 - 06DGEM
COURSE CODE: CAS520S	COURSE NAME: CADASTRAL SURVEYING 1 (Level 5)
DATE: JANUARY 2019	SESSION:
DURATION: 3 HOURS	MARKS: 100

SUPPLEMENTARY/SECOND OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER(S)	Mr. T.Makaza
MODERATOR:	Mr. E. Sinvula

INSTRUCTIONS
1. Answer ALL the questions. 2. Write clearly and neatly. 3. Number the answers clearly.

PERMISSIBLE MATERIALS

1. Calculator, ruler, pencil and eraser

THIS QUESTION PAPER CONSISTS OF 4 PAGES (Including this front page)

QUESTION 1

- 1.1 Which **three (3)** natural and cultural features are used in some countries for boundary definition? (3)
- 1.2 What is the advantage of having approved land surveyor's field and office records preserved in the Surveyor General's office? (2)
- 1.3 What was the reason for the promulgation of Act No.32 of 1993? (2)
- 1.4 Outline **any five (5)** powers and duties of the Surveyor General. (10)
- 1.5 Fill in the blank spaces below:
- 1.5.1 The present Namibian system of land registration is impossible unless each registered unit of land is (1.5.1.1).....and represented on a (1.5.1.2)or (1.5.1.3)..... (3)
- 1.5.2 The Land Survey Act 9 ofput cadastral surveying in South Africa and Namibia in the position it is today. (1)
- 1.5.3 The Surveyor General is an official appointed by the (1.5.3.1).....and he/she must be a registered (1.5.3.2)..... (2)

[23]**QUESTION 2**

- 2.1 Explain the purpose of demarcation. (2)
- 2.2 State and explain any six cases when demarcation is needed. (18)
- 2.3 Prior to carrying out a survey, one of the important things that a land surveyor does is to go to the Surveyor General's office to look for **survey information**. Indicate **any three(3)** examples of such information. (3)

[23]

QUESTION 3

- 3.1 Name and briefly explain the **two(2)** types of property registers found in the Surveyor General's office. (6)
- 3.2 Mention the **five(5)** common types of diagrams and briefly explain the cases when each is necessary. (10)
- 3.3 Explain the difference between a general plan and a diagram. (2)
- 3.4 What is the purpose of a working plan? (2)

[20]**QUESTION 4**

- 4.1 When doing a subdivision survey with a Total Station state **any three(3)** possible methods that you can use to bring control points close to the area where you are working. (3)
- 4.2 Explain the importance of a subdivision sketch during the examination process in the Surveyor General's office. (2)
- 4.3 State which statutory consent, if any, is needed for the following cases:
- 4.3.1 Subdivision of an erf into one portion and remainder (1)
- 4.3.2 Subdivision of a farm portion into one portion measuring 2000 hectares and remainder (1)
- 4.3.3 Survey to create a right of way servitude (1)
- 4.4 The Surveyor General usually approves **three(3)** copies of a subdivision diagram. Explain why the three copies are needed (3)
- 4.5 Fill in the blank space:
- 4.5.1 Land surveyors are frequently concerned with real servitudes, also called..... servitudes (1)
- 4.5.2 A real servitude is a right vested in one person in his capacity as owner of one piece of land termed the (4.5.2.1)of enjoying certain rights over another piece of land termed (4.5.2.2)that belongs to a different person. (2)

[14]

QUESTION 5

- 5.1 Define the following in the context of the Land Survey Act 33 of 1993:
- 5.1.1 Accurately determined; (2)
 - 5.1.2 Side. (2)
- 5.2 What are the minimum dimensions of beacons and the manner in which they shall be placed for the following cases:
- 5.2.1 rural land; (2)
 - 5.2.2 land situated in a township. (2)
- 5.3 State a situation when it is necessary to preserve the position of a beacon by means of an indicatory beacon. (2)
- 5.4 Indicate suitable scales that can be used on a general plan. (4)
- 5.5 Mention **any six(6)** types of essential information found on a diagram. (6)
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- [20]**