



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT

DEPARTMENT OF LAND AND SPATIAL SCIENCES

QUALIFICATIONS: BACHELOR OF GEOMATICS, DIPLOMA IN GEOMATICS	
QUALIFICATIONS CODES: 07BGEO,06DGEO	QUALIFICATIONS LEVEL: 7 - 07BGEO, 6 - 06DGEO
COURSE CODE: CAS520S	COURSE NAME: CADASTRAL SURVEYING 1
SESSION: JULY 2024	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

SECOND OPPORTUNITY/SUPPLEMENTARY EXAMINATION QUESTION PAPER

EXAMINER:	Mr T. Makaza
MODERATOR:	Mr S. Sinvula

INSTRUCTIONS

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

PERMISSIBLE MATERIALS

Calculators may be used as well as other drawing equipment.

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

Question 1

- (a) Define Cadastral Surveying. (4)
- (b) Explain how the need for land measurement and the need to keep records of claims to ownership of individual land parcels arose in ancient Egypt. (2)
- (c) "Because the cadastral system in Egypt developed around the definition of arable land, the system became also quite important in re-establishing the delineated boundaries after the annual floods of the Nile River washed away the evidence of land boundaries." Describe how these boundaries were re-established after the annual floods. (2)
- (d) Describe the purpose of the Land Survey Act 33 of 1993. (1)
- (e) Describe the 4 duties of a Land Surveyor as per the Land Survey Act. (8)
- (f) In countries like South Africa and Namibia, where natural and cultural features are few and far apart, what is the practical method of demarcating properties? (2)
- (g) Outline any 5 powers and duties of the Surveyor-General. (5)

[24]**Question 2**

- (a) What is the purpose of a demarcation survey? (2)
- (b) State in terms of Act 33 of 1993 who is entitled to perform demarcation surveys. (3)
- (c) Outline 3 scenarios that may necessitate a beacon relocation/replacement survey. (3)

[8]

Question 3

- (a) Describe the procedure that a person who wishes to acquire a portion of a public open space adjacent to his/her erf for consolidation with his/her current erf would follow. Description should include the processes involved and the professionals involved from initial identification of the portion of interest up to and including the registration of the consolidated diagram. (8)
- (b) State the 2 terms given to two properties that are involved in a servitude such as a right of way servitude. Indicate the correct term for each property. (4)
- (c) Mention 3 conditions that must be satisfied for consolidation to be possible. (3)
- (d) Explain how erf diagrams and farm diagrams are filed in the Surveyor General's office. (2)

[17]**Question 4**

- (a) State ANY 6 kinds of information contained in an erf register. (6)
- (b) The survey diagram is the fundamental registrable document prepared by a land surveyor. Name and describe at least 4 types of survey diagrams. (8)
- (c) Indicate at least 5 types of information that is included on a working plan. (5)
- (d) What information does a working plan show to the examiner and other land surveyors? (2)
- (e) Describe ANY 3 characteristics of a noting plan. (6)

[27]**Question 5**

- (a) State ANY 8 components of survey records. (8)
- (b) Name ANY 4 categories of coordinates that are found on a coordinate list. (4)

[12]

Question 6

- (a) Mention 3 approaches to beaconing a servitude of uniform width. (6)
- (b) What is the importance of the subdivision sketch during examination at the Surveyor-General's Office? (2)
- (c) Outline 2 typical demarcation methods/scenarios encountered in ensuring that beacons are placed in the correct positions as desired by a client. (Answer should indicate how coordinates are obtained for each case). (4)

[12]