



**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: 06DGEO, 07BGEO	QUALIFICATIONS LEVEL: 6 – 06DGEO, 7 - 07BGEO
COURSE CODE: CAS610S	COURSE NAME: CADASTRAL SURVEYING 2
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 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 5 PAGES (Including this Front Page).

Question 1

- (a) Chapter 3 of the Land Survey Act 33 of 1993 deals with Original Surveys and Resurveys. Explain two scenarios of original surveys in terms of section 8 and 9 of the Act. (2)
- (b) Under what circumstances shall it be necessary to resurvey a township? (2)
- (c) Describe the procedure to be followed when any person who, for the purpose of carrying out any work which such person may lawfully perform, wishes any beacon or mark erected in connection with the survey of land to be removed or disturbed. (Section 33 of the Act). (2)
- (d) Explain *accurately determined*. (2)
- (e) Define *original diagram*. (2)
- [10]**
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Question 2

State whether TRUE or FALSE

- (a) The owner of a property damaged by the placing of a reference mark shall be entitled to compensation for such damage. (1)
- (b) Once a general plan is approved by the Surveyor General and filed and registered in the deeds registry no alterations or amendments can be made on it. (1)
- (c) The Surveyor General is responsible for maintenance of reference marks that fall within a local authority area. (1)
- (d) An owner of the servient tenement can claim compensation from the state for depreciation of land as a result of a beacon or trigonometrical beacon erected on his/her land. (1)
- (e) The Act does not apply with respect to land vesting in the State. (1)
- (f) Land surveyors can enter private land any time they wish. (1)
- (g) On a general plan, it shall not be necessary to record data on both sides of a common boundary. (1)
- (h) On a general plan, when the sides of two or more adjoining erven in a block are parallel, it shall only be necessary to record the directions of the first and last of those parallel sides. (1)

- (i) On a general plan it is not necessary to show coordinates for all placed beacons unless they are block corners. (1)
- (j) When a survey for replacement of beacons involves only their replacement into coordinate positions previously established on the trigonometrical system, the land surveyor does not need to lodge the usual complete set of survey records. (1)
- (k) If the owner desires to effect a separate registration of the remaining extent of the piece of land it shall not be compulsory to so submit a diagram of such remaining extent. (1)
- (l) When a fence post forms part of a properly erected fence and occupies a corner point of land being surveyed, it may be adopted as a beacon. (1)
- [12]**
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Question 3

- (a) In terms of Act 33 of 1993, the Survey Regulation Board may make regulations in relation to certain matters. Name ANY 8 of them. (8)
- (b) State the composition of the Survey Regulations Board. (4)
- (c) State who is responsible for maintaining in proper order any beacon or mark defining a corner point of a piece of land. (2)
- (d) When a river constitutes a boundary of any piece of land such piece of land shall be deemed to extend to the middle of the river except in certain cases. Name such exceptions. (5)
- (e) Explain a situation that may necessitate a resurvey of a township. (2)
- (f) Before a local authority applies to the Minister for a resurvey of a township or a portion of a township falling within its area of jurisdiction, the local authority shall, in consultation with the Surveyor-General, cause a notice of the intended application for resurvey to. State 2 methods that are used to make such a notice. (2)
- (g) What are the 3 options of beaconing a servitude of uniform/defined width? (3)
- [26]**
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Question 4

Fill in the missing words.

- (a) Unless a point is otherwise adequately checked its position shall not be determined by resection from less than (i)points favourably situated, and the observations used in such determination shall consist of not less than (ii)arcs, unless (iii).....of the points are within 3 000 metres of the point being determined, in which case only (iv) arc need be observed.
- (b) A land surveyor may use the co-ordinate value of any survey station or beacon whose position on the trigonometrical survey system has been determined in the manner and with a degree of accuracy acceptable to the (i).....and whose physical position has been (ii)by the land surveyor concerned.
- (c) Angular observations at any station or beacon shall consist of at least (i).....arc when observed over distances exceeding (ii)metres, or over any distance of more than 100 metres when the (iii)..... exceeds 10 degrees.

[8]

Question 5

Where an existing servitude is not registered in the Deeds Registry, and the only indication of its existence is a note on a registered diagram, the identical words used on that diagram shall be produced in a similar position on any subdivisional diagram representing land affected by that servitude but that note shall not be altered or omitted except as a result of -certain circumstances. State these 4 circumstances. **[8]**

Question 6

- (a) Name the three classes of allowable accuracy and examples of the type of survey for each class as per land survey regulations. (6)
- (b) According to regulation 16 state all cases where it shall not be necessary to place some cadastral beacons. (6)
- (c) When preparing a report on survey land survey regulations states certain key headings that may form the basis of such a report. State any 4 of them. (4)
- (d) When a land surveyor has knowledge that a reference mark, trigonometrical station or benchmark has been or is likely to be damaged or destroyed, what is he or she is expected to do? (2)

[18]**Question 7 (All questions relate to Act 32 of 1993)**

- (a) Name all acts which a person may do in order to be called a practitioner under this Act. (4)
- (b) State who the members of the Council are. (10)

[14]**Question 8**

Outline the following aspects related to the Fencing Act 17 of 1912:

- (a) Dividing fence (2)
- (b) Give and take line. (2)

[4]