

2312/305

**CADASTRAL SURVEYING
AND LAND LAW**

June/July 2021

Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN LAND SURVEYING

CADASTRAL SURVEYING AND LAND LAW

3 hours

INSTRUCTIONS TO CANDIDATES

You should have the following for this examination:

Answer booklet;

Scientific calculator.

This paper consists of EIGHT questions in TWO sections; A and B.

Answer FIVE questions; choosing THREE questions from section A and TWO questions from section B.

All questions carry equal marks.

Maximum marks for each part of a question are as indicated.

Candidates should answer the questions in English.

This paper consists of 6 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

SECTION A: CADASTRAL SURVEYING

Answer THREE questions from this section.

1. (a) State **three** applications of cadastral surveying. (3 marks)
- (b) State:
- (i) **two** ways in which fixed boundaries are defined on a cadastral plan.
 - (ii) **two** ways of defining general boundaries on the ground. (4 marks)
- (c) **Figure 1**, shows a part development plan for three plots. Using the information on the plan, the coordinates of the corner point P and the traverse point, Tr in table 1, compute:
- (i) the theoretical data for beacons Q, R and S.
 - (ii) the placing data for beacons Q and R from the traverse point Tr. (13 marks)

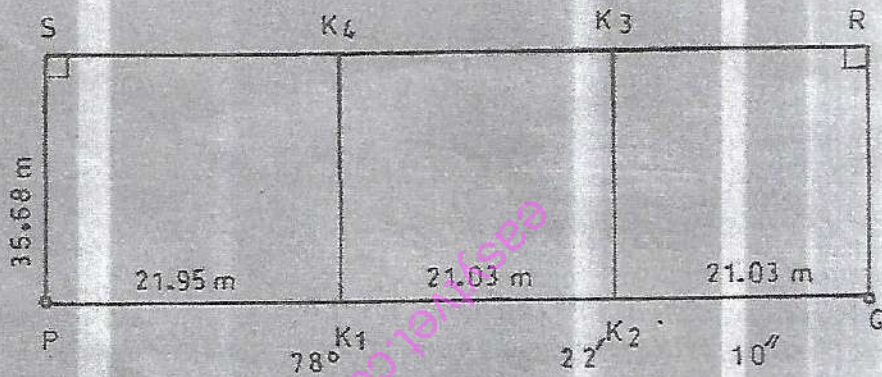


Fig.1

Table 1

POINT	NORTHING (m)	EASTING (m)
P	-140558.68	-17332.39
Tr	-140537.93	-17224.25

Line bearing distance N E

2. Figure 2 shows measured distances and observed angles for a traverse run between two control points X and Y. Using the information in the figure and datum coordinates in table 2, determine:

- (i) corrected bearings for the traverse lines.
- (ii) the swing and scale factor.

(20 marks)

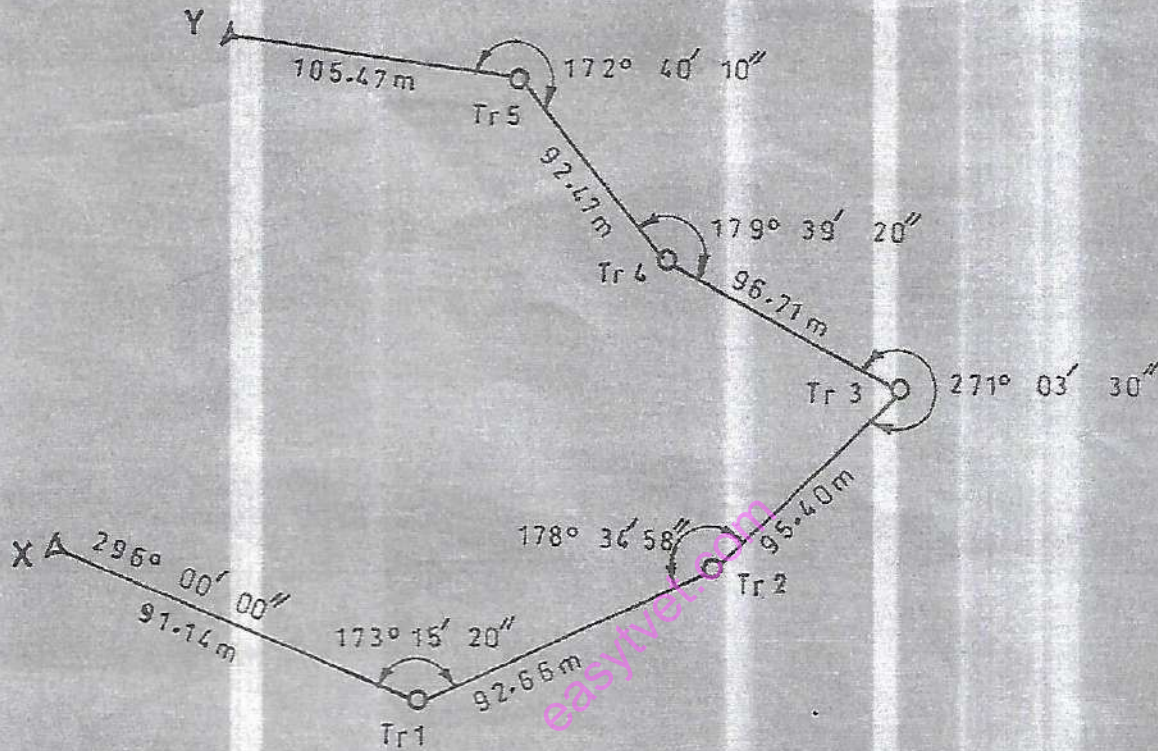


Fig. 2

Table 2

POINT	NORTHING (m)	EASTING (m)
X	+2939.93	+4004.20
Y	+3312.67	+3807.09

3. Figure 3, shows a parcel of land to be subdivided into two equal portions A and B. Using the coordinates of point P in table 3 and the information in the figure, compute:

- (i) the coordinates of the corner points of the parcel;
- (ii) the area of the parcel in square metres;
- (iii) the coordinates of the on-line beacon K3 in order to achieve the sub-division condition.

(20 marks)

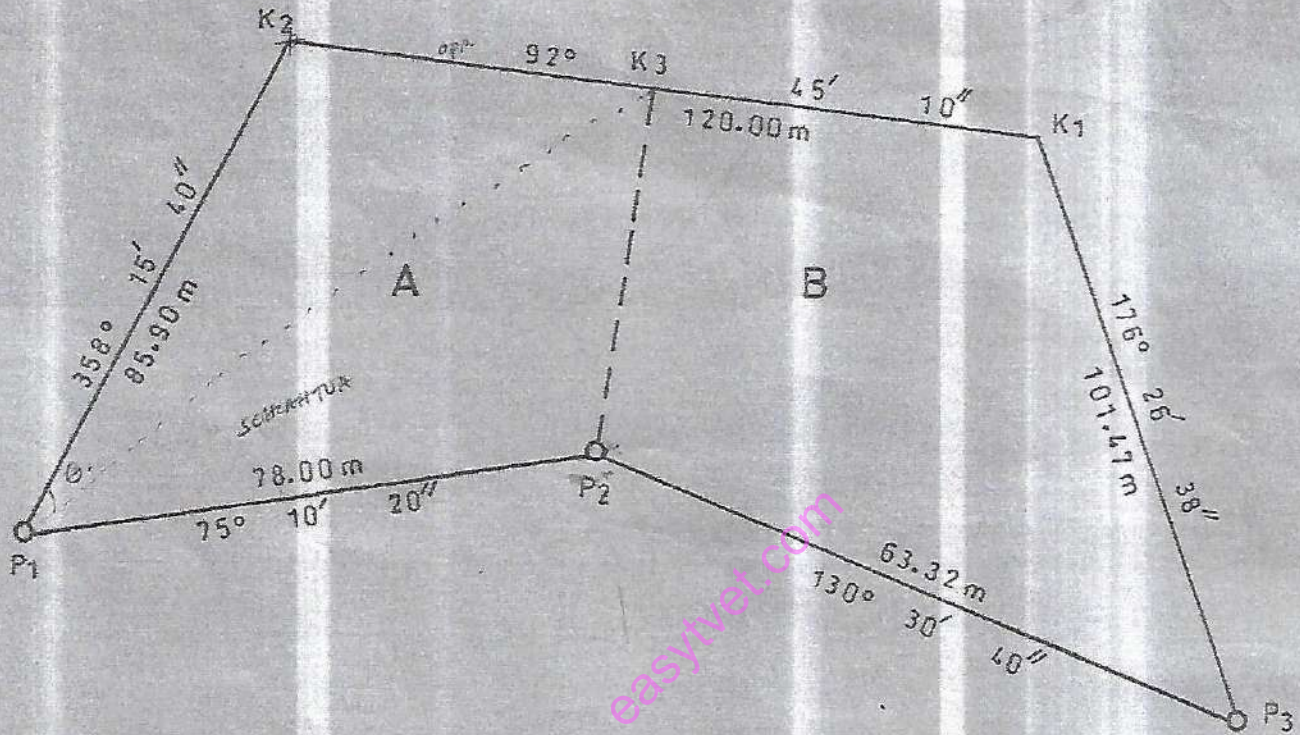


Fig.3

Table 3

POINT	NORTHING (m)	EASTING (m)
P2	-45647.60	+38800.15

Handwritten calculations for point P1:

@ 75.00
 by 255° 10' 20" @ 85.90m
 -19.961, -75.403 by 178° 15' 40"
 -45667.561,
 P1 -45667.564, 38724.742 -85.860,
 2.609

Handwritten calculations for point K2:

K1 @ 101.47m
 by 356° 26' 38"
 722.135
 K2 -45581.694, +38722.997

4. (a) Describe the procedure of preparing a DEED plan for a new grant.

(5 marks)

(b) State the provisions of the survey regulations concerning the following:

- (i) Erasures and corrections on a Deed plan;
- (ii) Cancellation of a Deed plan.

(5 marks)

(c) State six objectives of final checking in cadastral surveying. (6 marks)

- plan compares in shape and size - ~~Baseline~~ parcel - survey according to relevant act
- method of computation transaction - ~~is survey relevant to~~ - becomes placed where flag should be
- objective of survey notes - ~~is a~~ ~~provision~~ is of sound mind and understood

(d) Explain the importance of consistency checks in cadastral surveying. (4 marks)

- ~~data~~ ~~on~~ ~~cadastre~~ consistency of cadastral plan data with theoretical coordinates of corner becomes.
- Boundary data must represent a closed figure - cadastral computation are compared with the final plan
- ~~is a~~ ~~provision~~ is of sound mind and understood

5. (a) Explain the role of the following officers in an adjudication team:

- (i) Adjudication officer; - overall supervisor of the adjudication process
- (ii) Recording officer; - records makes records of the parcel after the right ascertained
- (iii) Demarcation officer; - makes the boundary marks
- (iv) Survey officer. -

(8 marks)

(b) Explain the purpose of a Registration Index Nap (RIM) in cadastral surveying.

(3 marks)

(c) State three types of mutation surveys carried out under General Boundary surveys.

- combination
- subdivision

(3 marks)

(d) Explain the procedure of carrying out the following in a mutation survey.

- (i) Completion of the mutation form;
- (ii) Fieldwork.

(6 marks)

-45688 732, 38848 291

SECTION B: LAND LAW

Answer TWO questions from this section.

6. (a) Distinguish between private law and international law. (4 marks)
*- International govern international state relation internationally.
- private entails rights & duties of persons towards persons*
- (b) Explain how legislation becomes a source of law in Kenya. (4 marks)
- (c) Describe the **three** restraints that can be entered on the Land Register to prevent a legal owner from transacting in his/her property. (6 marks)
- (d) State six requirements for a proprietor to transfer ownership in a sale transaction. (6 marks)
7. (a) Explain the actions to be taken by the Land Registrar as provided in the Land Registration Act of 2012, concerning the following: (10 marks)
- (i) combinations;
(ii) sub-divisions;
(iii) re-parcellations..
- (b) (i) Define the term "Boundary" as used in land law. *- vertical surface that defines between one territory the ends and the adjoining parcel starts.*
(ii) Explain how the term "Fixed Boundary" is used under RTA and RLA. (6 marks)
- (c) State the provisions of the Land Registration Act of 1963 as concerns boundary maintenance. (4 marks)
8. (a) State the Land Registration provisions in Kenya as from 1900, pointing out the year of enactment for each. (6 marks)
- (b) Compare R.L.A and R.T.A in terms of: (4 marks)
- (i) Indefeasibility title;
(ii) Unregistered interests and rights.
- (c) Explain the **three** main principles of title registration. (6 marks)
- (d) State **four** advantages of Land Registration. (4 marks)

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