

National Land Commission Secretariat  
Cadastral Surveyors Licensing Board  
*Licensed Surveyor Examination*

Paper III: Cadastral Practical II

Date: 20/06/2023

Time: 6 hours

Total Marks: 50 marks

Group Name:

**General instructions:**

1. This paper consists of 3 pages. Part A consists of three sections.
2. Examination shall be done in one day, and time assigned is 6 hours.
3. Invigilator must provide question paper 15 minutes prior to commencement of practical exam at **10:00 AM**. This time is solely meant to read instructions and clarify doubts.
4. The site plan and datasets will be provided wherever necessary to use as a reference.
5. You must completely adhere instructions and execute work professionally. They will be considered while weighting your work.
6. You must handover question paper and field book at the end of practical examination.

\*\*\*Good Luck\*\*\*

**Part A-Field Assessment**

***Section I- Establishing Control Points***

Set up the base station on known control point provided. Establish two temporary station after selecting suitable sites. One station should be in your work area. Another at 150 meters away from the first station. Observe stations in control mode for 5 minutes. Resulting coordinates must be in local grid coordinate system. **(3 marks)**

## ***Section II: RTK Surveying***

- 1.1 Check the reliability of temporary stations by connecting to nearby PRS station. Depict such station(s) in your cadastral dataset, and document works. Also, compute positional discrepancy of the observed station that is in your work area. Show your work to invigilator. **(5 marks)**
- 1.2 Set up base station on temporary station that you created in your work area. Demonstrate instrumental setting and operation to invigilator. **(3 marks)**

### **1.3 Cadastral Surveying**

#### **1. Desktop work(Plot Subdivision)**

- 1.1 Create a plot using the coordinates given in the plan in LisCAD. Use appropriate measurement units and code tables. Assign unique point identifiers starting with acronym of your name as first two letters followed by any five digits. Ensure identifiers are running number. **(5 marks)**
- 1.2 Fragment two plots keeping the area of 30 decimals of the given plot with access road provision of 3.5m. Assign standard plot description and compute parcel area at third significant figure. **(5 marks)**

#### **2. Boundary Demarcation**

- 2.1 Survey and demarcate the corners of subdivided plots with wooden pegs. State on field book how you have ensured the quality of marker position. **(5 marks)**

#### **3. Data Submission**

- 3.1 Download your cadastral data into proper folder. CSV file must contain all attributes. **(2 marks)**
- 3.2 Also, submit your field book. **(2marks)**

### ***Section III: Total Station Surveying***

- 1.1.** Set up Total Station. Use temporary stations established in **Section I**.  
Demonstrate instrumental setting and operation to invigilator. **(5 marks)**
- 1.2.** Stakeout four corners of any of the subdivided plots by using scale factor=  
**0.999620339 (5 marks)**
- 1.3. *Traverse:*** Run travers from the known control points **(10 marks)**
  - Provide at least 3 traverse points. Measure in both faces.
  - Adjust traverse.
  - Check the quality of the traverse.