

# Land Management Training Center

## Syllabus for the Entrance Test

### Senior Survey Course

(For departmental candidate)



**Marks: 100**

#### **1. Elementary Mathematics**

20

Percentage, area, volume, simple equations, Simultaneous equations, quadratic equations, height and distance, solution of triangles, properties of triangles, circle, probability, mean, standard deviation, variance, Law of indices.

#### **2. Mathematics**

20

Plane & polar Co-ordinates; equations of straight line, circle, parabola, hyperbola; concept of vector; direction cosines; matrices

Differentiation, Limit and continuity, differentiation of functions, Maxima and minima, Expansion of functions, different series expansion

#### **3. Optics and Electronics**

10

Light ray, mirror, Lens, Prism, Spectrum, frequency, wavelength, radiation, frequency modulation, Amplitude modulation.

#### **4. Surveying and Mapping**

30

##### **4.1 Fundamental of Survey**

Definition, Principle, Map Types, Map scale, Bearing, Distance, Coordinate system, Latitude & Longitude, Shape of Earth, Height, Surveying & Mapping Activity in Nepal.

##### **4.2. Geoinformation Technology**

- GNSS Positioning system: principles, components, applications.
- Geographic Information System: History, Components, Application, areas.
- Remote Sensing: History, Types, Principles and Application.

##### **4.3 Cadastral Survey**

History, Method, Types, Organization structure, Present Situation of Cadastral Survey, Cadastral vision 2014

#### **5. General Knowledge**

10

Geography of World and Nepal, Population, Contemporary Issues, Professional organizations: FIG, ISPRS, NESA, NRSPS etc.

#### **6. Acts, Rules, Policy, Directives**

10

- नेपालको संविधानमा भूमि सम्बन्धि व्यवस्थाहरु
- जग्गा नापजाँच ऐन २०१९/नियमावली २०५८
- भूमि सम्बन्धि ऐन २०२१
- भू उपयोग नीति २०७२
- मालपोत ऐन २०३४/नियमावली २०३६(नापजाँच संग सम्बन्धित)
- जग्गा नाप जाँच तथा नक्शा अध्यावधिक सम्बन्धि निर्देशिका २०७३

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