Land Management Training Center

Syllabus for the entrance test

Junior Survey Course

(For Departmental candidate)

Marks: 100

A: Elementary Mathematics 50

1. Arithmetic

(a) Percentage  (b) Area and Volume  (c) Unitary Methods  (d) Units and their conversion

2. Algebra

a) Solution of Equations (One unknown and two unknowns)
b) Solution of Equations by Graphical Methods
c) Solution of Quadratic Equations
d) Series, Laws of Indices
e) Measure of central tendency (Mean, Median and Mode)
f) Concept of matrix

3. Trigonometry

(a) Height and distance  (b) Solution of triangles
(c) Properties of triangles  (d) Circular measurements
(e) Trigonometric rule and formulas

4. Coordinate geometry

a) Equations of straight lines and circles
b) Idea of plane and polar coordinates
c) Combination of transformation

5. Plane and solid geometry (concept and properties)

(a) Triangle  (b) Circle  (c) Cube
(d) Sphere  (e) Cylinder

B: Knowledge of Map 30

(a) Idea of Map and Surveying  (b) Principle of Surveying
(c) Methods of surveying  (d) Survey instruments
(e) Linear and angular measurements  (f) Accuracy and precision
(g) Error and correction  (h) Idea of map scale
(i) Types of map  (j) Idea of earth surface (geoid and ellipsoid)
(k) Idea of contour (l) Concept of latitudes and longitudes
(m) Idea of Bearing (n) Idea of projection and sheet numbering in Nepal

C: General Knowledge

(a) General knowledge about major current and past events of Nepal
(b) Nepalese and world geography
(c) Surveying and Mapping activities in Nepal
(d) Simple Concept on geomatics
(e) Simple concept on computer and its operation

D: Past and Current Administrative Division of Nepal

F: नापनक्सा तथा भूमिस्थल्य संवैधानिक व्यवस्था, नापनक्सा तथा भूमिस्थल्य ऐन, नियम, भू-उपयोग ऐन