

PCMN4201 Mine Survey – I

Module I

Linear Measurements and chain Survey: uses of various types of chains and tapes. Measurement of correct length of line. Direct and Indirect ranging. Chaining along sloping ground. Obstacles in chaining. Errors and their elimination.

Module II

Compass Surveying – Uses of prismatic compass, temporary adjustment, bearing of a line, local attractions, correction of bearing.

Plane table surveying- Methods of plane table, radiations, intersection, traversing and resection, 2-point and 3-point problem.

Use of Mining type theodolite, Measurement of horizontal and vertical angles.

Module III

Levelling – use of dumpy level and levelling staff. Temporary and permanent adjustment of dumpy level. Reduction of levels by HI and rise & fall method. Error due to curvature & refraction. Sensitiveness of bubble tube, reciprocal levelling, levelling difficulties and common errors.

Contouring – Contour interval and horizontal equivalent. Characteristics of contours and application of contours. Contouring methods.

Books Recommended:

- 1) Surveying & Labelling. Vol-I by T.P.Kanethar & S.V.Kulkarni.
- 2) Surveying- Vol.I, by B.C. Purmia
- 3) Surveying – by Husain & Nagnas.