

**S.S. COLLEGE, JEHANABAD
(GEOGRAPHY DEPARTMENT)**

B.A. PART - 3 (PRACTICAL GEOGRAPHY)

TOPIC : METHODS OF ENLARGEMENT AND REDUCTION OF MAPS

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(DATE: 03/08/2020)

Surveying and Mapping

Surveying means the whole range of operations connected with measurement for determining relative positions of points above, on, or beneath the surface of the earth. Surveying can be regarded as that discipline which encompasses all methods for gathering and processing information about the physical earth and the environment.

Kinds of Surveys

Surveys are broadly classified as under:

- (a) **Topographic Surveys:** Provide maps of natural and man-made features, such as mountains, plains, rivers, oceans, lakes, canals, roads, railways, etc. These maps are especially useful in engineering projects such as rail/road alignments, canal layout, etc.
- (b) **Land Surveys:** Establish the boundaries of tracts of land or administrative sub-divisions, such as townships.

TOWNSHIPS.

- (c) **Hydrographic Surveys:** Provide charts that show such features as the bottom of a large area of water, the shape of a coastline and the height and range of a tide. These charts are useful as aids in safe water navigation and improvement of rivers and harbours.
- (d) **Geodetic Surveys:** Measure large regions of the earth's surface, and therefore, take into consideration the curvature of the earth. They are used for establishing lines of latitude and longitude. Surveys of small areas such as a city or township use the methods of plane surveying, which do not take into consideration the curvature of the earth.
- (e) **Control Surveys:** Establish the position of certain lines or points from which other surveys are made. In land surveys, control lines consist of lines of latitude and longitude of known distance apart and from which boundary lines can be determined. Bench marks are relatively permanent objects (such as a cement post) of known height, or elevation, above sea-level. Elevations of other points are determined in relation to bench marks.
- (f) **Other Surveys:** Magnetic surveys show the distribution of magnetic lines of force over the earth's surface. Geological surveys show rock formations and mineral resources. Soil surveys show how various kinds of soils are distributed in a region.

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