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MA Geography Semester II
Paper CC9 (Practical)
Unit IV
Topic - Geological Section

M.A. Semester II (2019-21) Geography
Paper - CC-09 Practical
Unit IV Geological Section

Introduction - Geological section is drawn along any given line A — B, X-Y etc on a geological map. A Geological map represents an area along with structure of underlying rocks. The term structure denotes (a) the composition of rocks, and (b) the alignment of rocks.

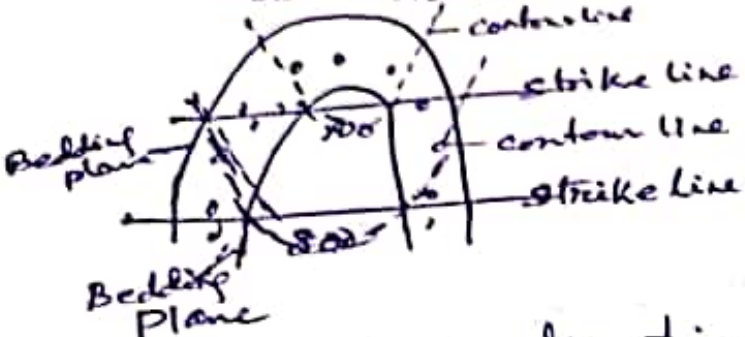
These two aspects are shown on the geological map through the bedding plane lines and through contour lines which shows the height of a rock bed at different locations. Contour forms also represent the relief and topography of the area. Thus along with the structure of underlying rocks, the present relief features e.g. river courses, slope of the land, hillocks river valleys etc can be identified and analysed through the geological map.

On a geological map bedding planes are represented by continuous black lines (——) while contour lines are shown by broken lines. (- - - 600 - - -). Different rock beds are given different shadings e.g.  etc based on conventional shadings of different rocks. Like these

2. Strike lines — Draw strike lines on the map.

A strike line is drawn when one contour line cuts one bedding planes at two points. By joining those two points one ~~bed~~ strike line is drawn on the map.

Following same principle all strike lines are drawn on the given geological map.



Strike is the direction in which dip is 0°

Any line drawn parallel to the direction of strike is known as strike lines.

Strike lines of one series (geological formation of one period) are always parallel. If all the beds are inclined then all the strike lines will be parallel and also equidistant.

If the area has folded structure then there can be two cases —

Symmetrical folding — If both the limbs of a fold have same degree of inclination then all the strike lines will be parallel and equidistant.

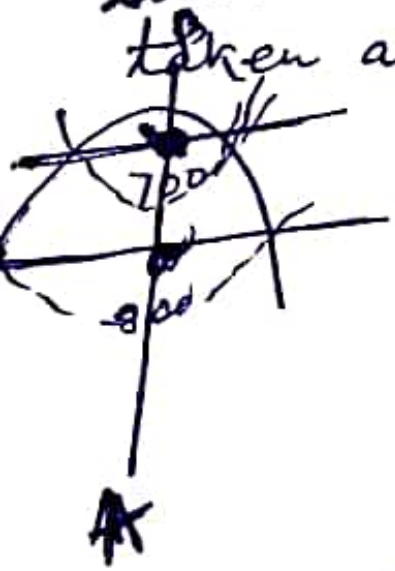
Asymmetrical folding – If both the limbs of a fold are asymmetrical i.e. inclined in different degrees, then strike lines of one limb will be parallel and equidistant, but for other limb the distance between two strike lines will be different. However in such cases also strike lines will be parallel to each other.

3. Dip of the beds

Inclination of the rock bed is known as Dip. It has two aspect – (i) Inclination of dip in degree and (ii) direction of the dip.

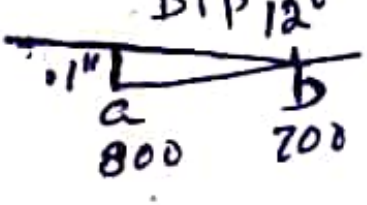
Process of finding dip

Draw a small line (Horizontal) parallel to A – B line in the lower part of drawing sheet. Measure the distance between two strike lines of one (same) bedding plane taken along the section line.



Section line is A – B.

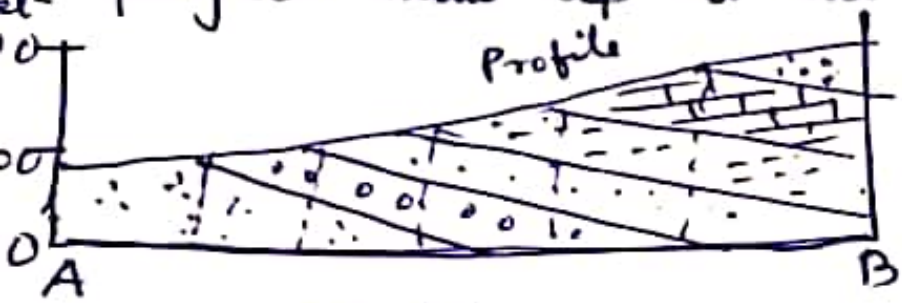
Distance a – b is taken

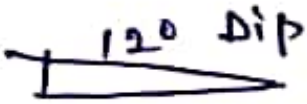


Since at a the value of strike line is 800 while at b value of strike line is 700. Therefore the direction of the Dip will be from A towards B.

4 Bedding Planes

Mark the points at which different bedding planes cut on geological section line and at the base of profile drawn. Vertically project them up to the profile already drawn





Now draw all the bedding planes with the help of dip (degree & direction). All the bedding planes must be parallel to each other. Shades the beds according to the given geological map.