

Basic science Assignment

1. Define drainage pattern

Dendritic pattern: This pattern develops where the river channel follows the slope of the terrain. The stream with its tributaries resembles the branches of a tree, thus the name dendritic.

2. BRIEFLY DESCRIBE 3 MAIN TYPES OF DRAINAGE PATTERNS

- 1 **Trellis pattern:** A river joined by its tributaries, at approximately right angles, develops a trellis pattern. A trellis drainage pattern develops where hard and soft rocks exist parallel to each other.
- 2 **Rectangular pattern:** A rectangular drainage pattern develops on a strongly jointed rocky terrain.
- 3 **Radial pattern:** It develops when streams flow in different directions from a central peak or dome-like structure.

3. EXPLAIN THE THREE 3 MAIN TYPES OF DRAINAGE PATTERNS

1 Dendritic Drainage Pattern:

Dendritic or tree-shaped drainage pattern is the most common and widespread pattern to be found on the earth's surface. The pattern is called dendritic on the ground that the network of tributaries of various orders and magnitudes of the trunk or master stream resembles the branches and roots and rootlets of a tree.

2 Rectangular Drainage Pattern:

Rectangular pattern shows some degree of resemblance to trellised drainage pattern as tributary streams in both the patterns join their master streams almost at right angle but the confluence angle in the trellised pattern is guided by the strikes and dip angle of the rock beds while it is determined by the lines of weaknesses (e.g. faults and fractures and joints) of the rocks in the rectangular pattern.

3 Radial Drainage Pattern:

Radial drainage pattern, also known as centrifugal pattern, is formed by the streams which diverge from a central higher point in all directions. It is obvious that dome structures, volcanic cones, batholiths and laccoliths, residual hills, small tablelands, mesas and buttes, and isolated uplands favour the development of ideal radial pattern.