structure is much weaker and more flexible than the old and stable peninsular block.

- The exogenic and endogenic interplay results in the formation of different kinds of folds, faults and thrust plains.
- These mountains are the result of tectonic activities.
- In fact, these mountains lying on the zones of convergence along the tectonic plate boundaries are still undergoing the tectonic activities and are still in their process of formation.
- The rivers cut across these mountains during their youthful stage resulting into marvellous features like gorges, V-shaped valleys, rapids, waterfalls etc. before they descend into the plains.
- The several Himalayan rivers like Ganga, Yamuna, Brahmaputra etc. cut across the lofty Himalayas as very fast flowing streams in their upper reaches. Such fast movement of running water causes more vertical erosion that lateral erosion and causes valleys to deepen.
- The rivers of Western Ghats too form spectacular gorges and V-shaped valleys which are the result of the vertical erosional activities of peninsular rivers like Krishna, Ghataprabha, Tungabhadra, Periyar etc. Many waterfalls like Dudhsagar, Sivasamudram, Jog are the resultant erosional features of Western Ghats.

Indo-Ganga-Brahmaputra Plains

- As the name suggests, the floodplains of the three most important Himalayan rivers Ganga, Brahmaputra, and Indus forms the third geological division.
- The floodplain was originally a geo-synclinal depression.
- The plain reached its peak development approximately 64 million years ago, during the third phase of Himalayan mountain formation.

Geosynclines

- A geosyncline is large troughlike or basinlike downwarping of the crust in which thick sedimentary and volcanic rocks accumulated.
- These are major structural and sedimentation all units of the earth's crust. They are elongated trough-like depressions submerged beneath the sea water.
- They are potential sites of mountain building activity. These basins become filled with great thickness of sediments and along with the accumulation of pile of sediments; there occurs progressive subsidence of the basin floor resulting into plain formation at a much later geological stage.

- The plain was the result of sediments brought and filled by Himalayan and Peninsular rivers.
- These plains are mostly formed of alluvial deposits and therefore are extremely fertile and the depth of deposits vary between 1000-2000 m.

India - Physiography

- Physiography of a region is the outcome of the geologic structure, geomorphic processes, and stage of development of landforms. India has great diversity in terms of physical features. The north is characterized by the rugged mountain topography with high peaks, beautiful valleys, and deep gorge. The southern part is the solid block of rigid landmass which is very stable and is dissected by plateaus, denuded rocks, and resultant scarps. The middle part is characterized by vast rolling plains.
- India is divided into 6 physiographic divisions:

» The Northern and the Northeastern Mountains
» The Northern Plains
» The Peninsular Plateau
» The Indian Desert