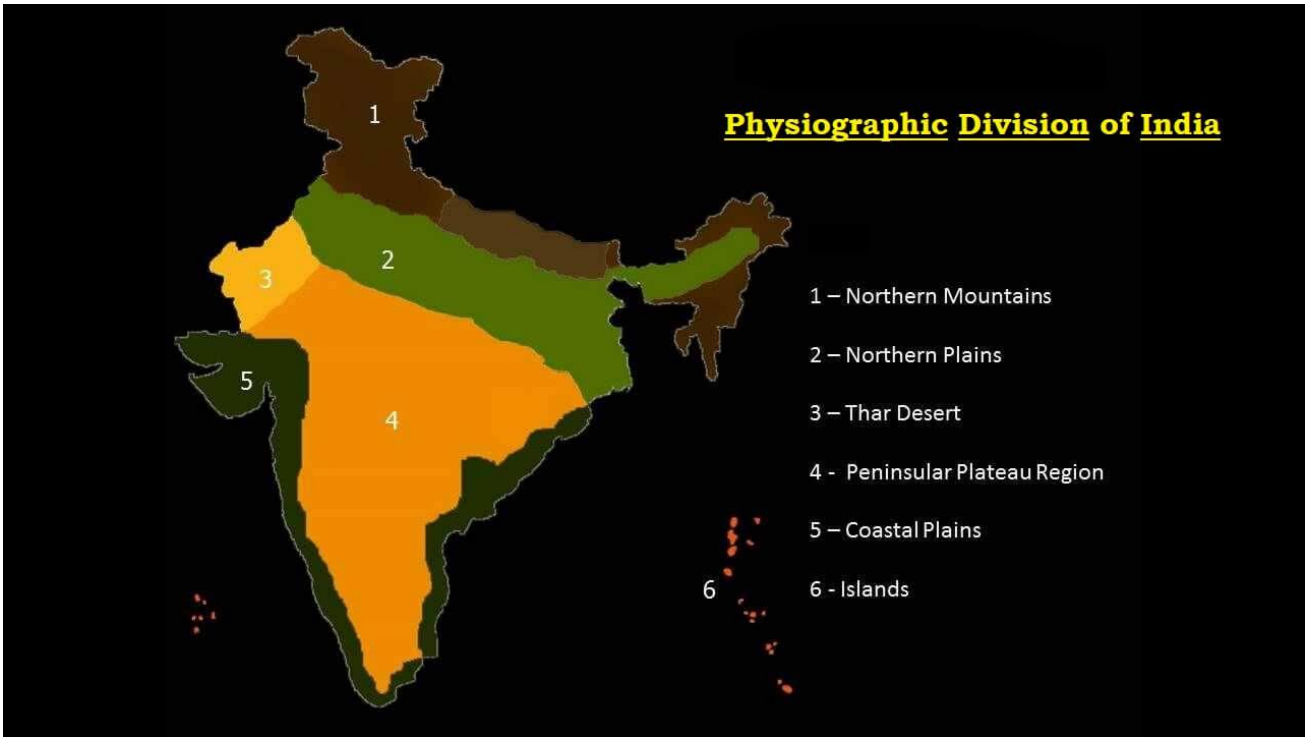
Physiographic Divisions of India

On the basis of physical features,India can be divided into following six divisions
The Northern mountains
2. The Northern Plains
3. The Indian Desert
4.The Peninsular Plateau
5. The Coastal Plains
6. The Islands.



1. The Northern Mountain: It is divided into three groups. They are :
    (i) The Himalayas
    (ii) The Trans Himalayas
    (iii) The Purvanchal hills

Views on origin of Himalayas:

Edward Suess: according to Suess the folding of the Himalayas has been caused by the compressional forces which have worked from the north and led to the folding of the detritus deposited in the bed of the Tethys. In this process the land mass of Angara land lying north of the Tethys acted as backland whereas Gondwana land along the southern margin of the Tethys behaved as foreland and remained stationary. Due to the southward movement of Angaraland the Tethyan sediment was compressed against the Peninsular mass yielding place to three successive arc like ranges from west to east owing to two

extended horns of the peninsula (the Aravallis and Delhi ridge in the west and Meghalaya plateau in the east).

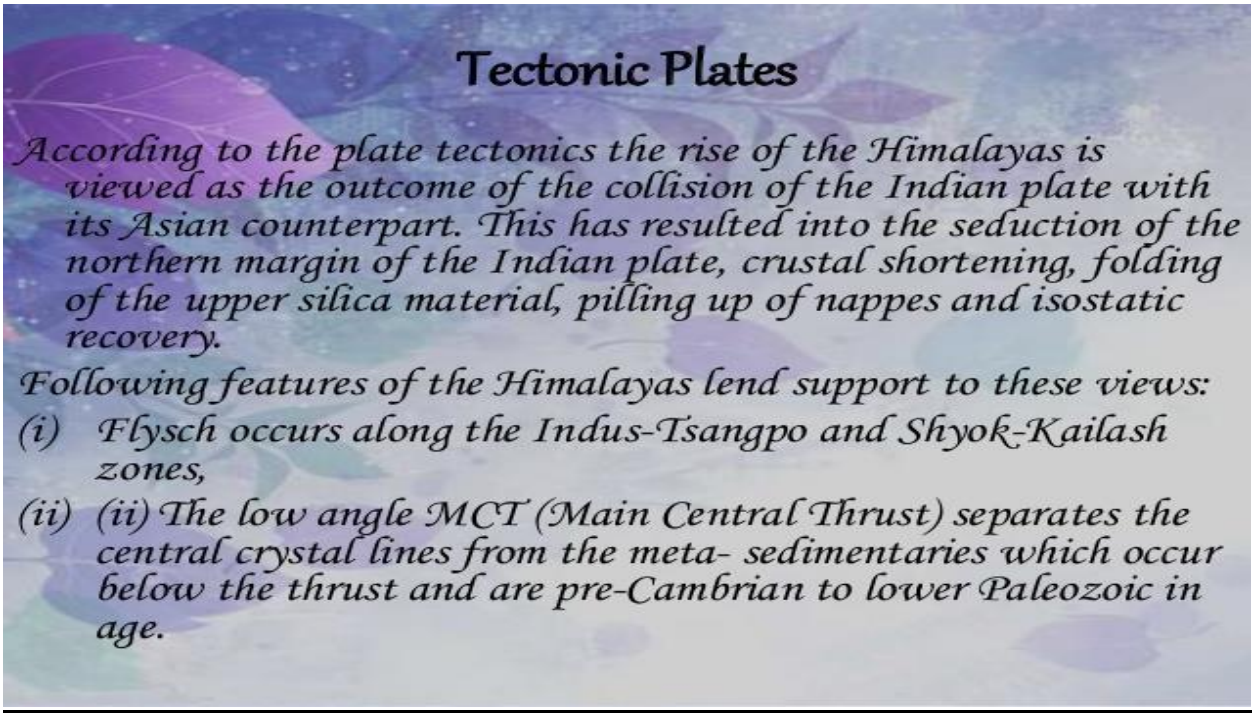
The southward bend in the Himalayan ranges is cited as a strong argument in support of this theory.

Kober: famous german geologist Kober has presented a detailed and systematic description of the surface features of the earth in his book 'Der Bau der Erde' in which he has tried to establish a relationship between ancient rigid masses and orogeny (mobile zones or geosynclines).

Thus he has tried to explain the origin of mountains on the basis of his geosynclinals theory. According to this theoryTethys geosyncline occupied the present day place of the Himalayas and was bordered by Angaraland in the north and Gondwanaland in the south both of which acted as foreland.

During the Eocene period both these rigid masses (kratogens) started converging as a result of which folds were formed along the northern and southern borders of the Tethys sediments giving birth to the Kunlun mountains in the north and Himalayas in the south.

Tibetan plateau as median mass between these two mountains remained unaffected by the folding, althoughit was slightly raised due to intense nature of the compressional forces.



(i) The Himalayan Mountains Himalayas are the young fold mountains. They run from west-east direction from Indus to Brahmaputra covering a distance of 2500 KM. Their width varies from 400 in the west and 150 KM in the East. The Himalayas may be divided into three parallel ranges:

(a) Greater Himalayas or Himadari

(b) Lesser Himalayas or Himachal

(c) Outer Himalayas or Siwaliks.

(a) The Greater Himalayas or Himadari:

- northern most ranges and peaks.
- average height of 6000 metres and width lies between 120 to 190 Kms .
- It has high peaks like Mt. Everest, Kanchenjunga, Makalu, Dhaulagiri, Nanga Parbat etc. Mt. Everest (8848 m) is the highest peak of the world and Kanchenjunga is the highest peak of Himalaya in India.
- passesexist in this range, namely, Bara Lacha-La, Shipki-La, Nathu-La, Zoji-La etc.
- The Ganga and Yamuna rivers originates from this Himalayas.

(b) The Lesser Himalayas or Himachal:

- height 1000 and 4500 metres
- average width is 50 KM.
- ranges in this are PirPanjal, DhaulaDharand Mahabharata ranges.
- hill stations like Shimla, Dalhousie Darjeeling, Chakrata, Mussoorie, Nanital etc.
- valleys like Kashmir, Kullu, Kangra etc.

(c) The Outer Himalayas or the Siwaliks: outer most range of the Himalayas.

- height varies from 900-1100 meters and the width lies between 10-50 KM.
- valleys lying between Siwalik and Lesser Himalayas (Himachal) are called 'Duns' like Dehra Dun, Kotli Dun and Patli Dun.

(ii) The Trans-Himalayan ranges: It extends north of greater Himalaya and parallel to it is called zaskar range. North of Zaskar range liesLadakh range. The Indus river flows between Zaskar and Ladakh range. The Karakoram range lie extreme north of the country. K2 is the second highest peak of the world.

(iii) The Purvanchal hills: It comprises Mishami, Patkoi, Naga, Mizo hills which are located in eastern side. The Meghalaya plateau is also part of these hills which includes the hills of Garo, Khasi and Jaintia.

Divisions of Himalayas

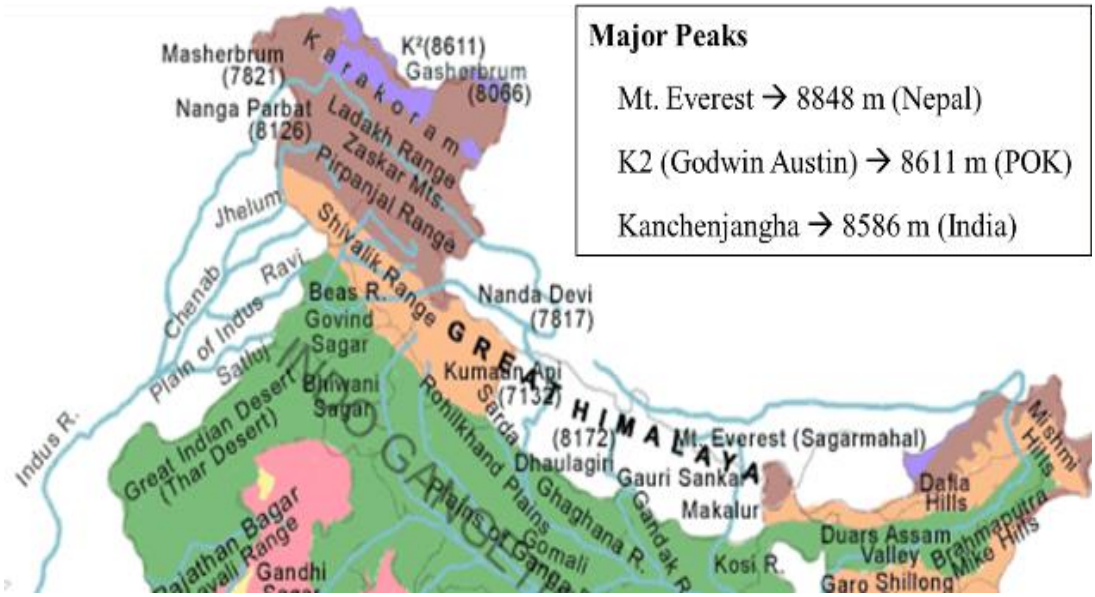
There are four main divisions of Himalayan Mountain Ranges which are separated from one another by the gorges of rivers which pass through them.

The Punjab Himalayas: The section between the Indus and the Satlej is known as the Punjab Himalayas. It is also called Jammu-Kashmir and Himachal Himalaya because most of this section is located in these two states. This section is 560 kilometers long. The important ranges of this section are the Ladakh, the PirPanjal, the Dhauladhar and the Zaskar. The Zoji La pass is at an altitude of 3,444 meter above the sea-level.

The Kumaon Himalayas: This section runs for a distance of 320 kilometers between the Satlej and the Kali rivers. This is higher than the Punjab Himalayas. Great rivers like Ganga and Yamuna have sources in the Kumaon Himalayas.

The Nepal Himalayas: This is situated between the Kali and the Tista rivers and is 800 kilometers long. Most of it is located in Nepal and hence its name. This is the highest part of the Himalayas where lofty peaks like the Everest, the Kanchenjungha, the Dhaulagiri, the Annapurna, and the Makalu etc. are located. The flat Kathmandu valley is also situated in the Nepal Himalayas.

4. The Assam Himalaya: It extends for a distance of 720 kilometers between the river Tista and the Dihang (Tsangpo-Brahmaputra).



Significance of the Himalaya Mountains to India

1. **Climatic Influence,**
2. **Defence**
3. **Source of Rivers**
4. **Fertile Soil**
5. **Hydroelectricity**
6. **Forest Wealth**
7. **Agriculture**
8. **Tourism**
9. **Pilgrimage**
10. **Minerals**

2. The Northern Plain:

Origin

- The Great plain of Northern India was formed by the sediments brought down by the Indus-Ganga-Brahmaputra and their tributaries and it is popularly known as the Indo-Ganga-Brahmaputra plain
- Geologists suggest that there was a shallow trough or geosyncline in between the Himalayas and the Deccan plateau during the latter geological period of the formation of the Himalayas.
- After the upliftment of the Himalayas, sediments and debris brought down by the rivers, began to accumulate there to form the vast alluvial plain of northern India.

Northern plains

- located between south of the Himalayas and north of the Peninsular plateau.
- formed by the deposition of the sediments brought by three main river systems namely : the Indus, the Ganga and the Brahmaputra.
- 2400 km long and its width varies from about 300 km in the west to about 150 km in the east.
- It mainly includes the states of Punjab, Haryana, Uttar Pradesh, Bihar, West Bengal and Assam.
- plain is one of the largest and most fertile plains of the world. Major crops such as wheat, rice, sugarcane, pulses, oil seeds and jute are grown here.

Bsed on relief features the northern plain can be divided into following region:

i. *Bhabar*- after descending from the mountains, the rivers deposit pebbles in a narrow belt. The width of this belt is about 8-16 km and it lies parallel to the Shiwaliks. This region is known as bhabar. All the streams dissappear in this region.

ii. *Terai:* lies towards south of bhabar belt. In this regiaon, the streams reappear and make awet, swampy and marshy region.

iii. *Bhangar:* largest part of northern plainand is composed of the oldest alluvial soil. They lie above the flood plains and resemble terraces. The soil of this region is locally known as kankar and is composed of calcareous deposits.

iv. *Khadar:* the floodplains formed by younger alluvium are called khadar. The soil in this region is renewed every year and is thus highly fertile.

Regional division of northern plains:

i. *Punjab plains:* it forms the western part of the northern plains. This is formed by the Indus and its tributaries like Jhelum, Chenab, Ravi, Beas, Sutlej. A major portion of this plain is in Pakistan. Doabs abound in this plain.

ii. *Ganga plain:* this plain extends between Ghaggar and Tista rivers. The northen states, Haryana, UP, Delhi, Bhar, Part of Jharkhand and West Bengal lie in the Ganga Plains.

iii. *Bramaputra plains*: this plain forms the eastern part of the northern plai and lies in Assam,

Significance of the Great Plains:

The northern plains is a riverine region, being bountifully endowed with the fertile soil, favourable climate, flat surface rendering possible the construction of roads and railways, and slow moving rivers.
All these factors have made this plain very important. An extensive system of irrigation, developed on the tributaries of the Satluj, the Ganga, the Jamuna and others, has turned the once dreary and desolate tracts of Punjab, Haryana, northern Rajasthan and Uttar Pradesh, into populous spots of smiling plenty.

(a) Heavy Concentration of Population:

The five rich states of the plain (Punjab, Haryana, Uttar Pradesh, Bihar and West Bengal), support one of the densest populations in the world.

(b) Cultural and Political Importance:

It is the dominant area from which not only the political power but also economic and cultural movements spread to Aryavarta. Delhi, Patna and Kolkata have served as the political capitals of the country.

(c) Social and Religious Significance:

IThe Ganga has been the sacred river par excellence and the area from Gaya to Mathura, from Sangam to Haridwar, is recognised by everyone as the 'holy land of Hinduism'. Here flourished the religions of Buddha and Mahavira and the movements of Bhakti and Sufism.

(d) Economic Significance:

The plains have a fertile soil, prrenialriversandfavourable climate they are, the great agricultural tracts of the country, raising bumper crops of rice, wheat, oilseeds, sugarcane, tobacco and jute. people have developed a great diversity of occupations, commercial and industrial.

3. The Peninsular Plateau

Peninsular plateau is a triangular shaped table land. It is part of ancient land mass called Gondwana level. It covers an area of nearly 5 lakh sq.km. It is spread over the states of Gujarat, Maharashtra, Bihar, Karnataka and Andhra Pradesh.

River Narmada divides the peninsular plateau into two parts:

(i) The central highlands and
(ii) (ii)Deccan Plateau

(i) ***The central Highlands***:

- extends from Narmada river and the northern plains.
- Aravallis is the important mountain which extends from Gujrat through Rajasthan to Delhi.
- The Malwa Plateau and Chhota Nagpur plateau are parts of the central highlands.
- Important River Betwa, chambal and Ken
- Mahadeo, Kaimur and Maikal are the important hills of chhota Nagpur plateau.
- The valley of Narmada is lies between the Vindhyas and the satpura which flows east to west and joins the Arabian sea.

(ii) ***The Deccan Plateau:***

- Deccan plateau is separated by a fault fromChota Nagpur plateau.
- The black soil area in the Deccan plateau is known as Deccan trap.
- formed due to volcanic eruptions and good for cotton & sugarcane cultivation. The Deccan plateau is broadly divided into:

(a) The Western Ghats
(b) The Eastern Ghats

(a) Western Ghats:

- runs parallel to the western coast for about 1600 km.
- average elevation of the Western Ghats is 1000 metres.
- Peaks:Doda Betta, AnaimudiamdMakurti.
- Western ghats are continuous and can be crossed through passes like Pal Ghat, ThalGhot and BhorGhat.
- rivers :Godavari, Bhima and Krishna flow eastward while the river Tapti flows westward.

(b) The Eastern Ghats:

- discontinuous low belt.
- elevation is 600 m.
- They run parallel to the east coast from south of Mahanadi valley to the Nilgiri hills.
- The famous hills are Mahendragiri hills, Nimaigiri hills in Orissa, Nallamallai hills in Southern Andhra Pradesh, Kollimalai and Pachaimalai in Tamilnadu.
- The area is drained by the Mahanadi, Godawari, Krishna and Kaveri river systems. The Nilgiri hills join Western & Eastern Ghats in the south.

4. The Indian Desert:

- lies towards the western margin of Aravali Hills.
- called Thar Desert.
- It is the ninth largest desert in the world.
- Dotted with dunes and barchans
- It spreads over the states of Gujarat and Rajasthan.
- This region has semi-arid and arid weather conditions. It receives less than 150 mm of rainfall per year.
- The vegetation cover is low with thorny bushes.
- Luni is the main river in this area.

5. The Coastal Plains

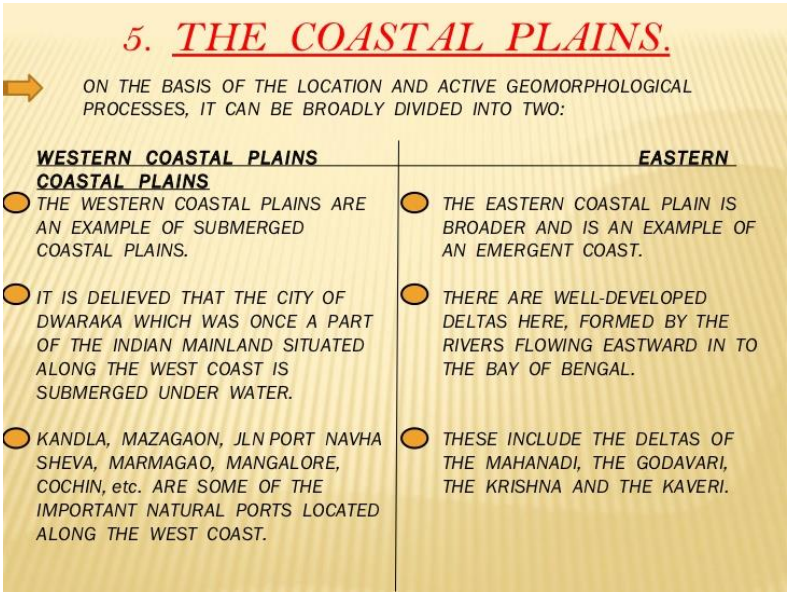
The coastal plains in India run parallel to the Arabian Sea & Bay of Bengal along the Peninsular Plateau.

- **The western coastal plain** is a narrow belt along the Arabian sea of about 10-20km wide. It stretches from Rann of Kachchh to KanyaKumari. Western coastal plains comprises of three sectors

  (i) Konkan Coast (Mumbai to Goa),
  (ii) Karnataka coast from Goa to Mangalore
  (iii) Malabar Coast (Mangalore to KanyaKumari).

- **The eastern coast** runs along Bay of Bengal.

  It is wider than the western coastal plain.
  Its average width is about 120Kms.
  The northern part of the coast is called Northern Circar and the southern part is called Coromandal Coast.
  Eastern coastal plain is marked by Deltas made by the rivers Mahanadi, Godavari, Krishna amdKaveri.
  The Chilka largest salt water lake in India in Odisha is located to the south of Mahanadi Delta.
  The coastal plains are belts for growing spices, rice, coconut, pepper etc. They are centres of trade & commerce. The coastal areas are known for fishing activities, therefore large number of fishing villages have developed along the coasts. Vembanad is famous lagoon which is located at Malabar coast.



6. The Islands

India has two main groups of Islands.
-There are 204 islands in Bay of Bengal called as Andaman and Nicobar islands
-The Andaman & Nicobar island extend from north to south in Bay of Bengal.
- They are bigger in size.
An active volcano is located on the Barren Island in Andaman & Nicobar group of islands.

- 43 islands in Arabian Sea called as Lakshadweep islands
- Lakshadweep islands are located near Malabar coast of Kerala in the Arabian sea.
- They cover an area of 32 sq km.
-Kavarati is the capital of Lakshdweep.
-These islands are formed by corals and endowed with variety of flora and fauna.