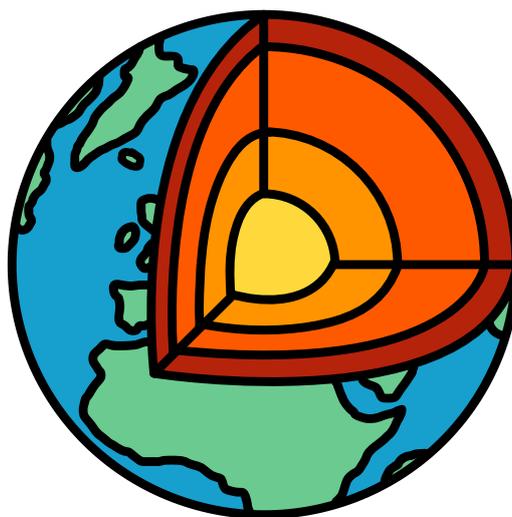


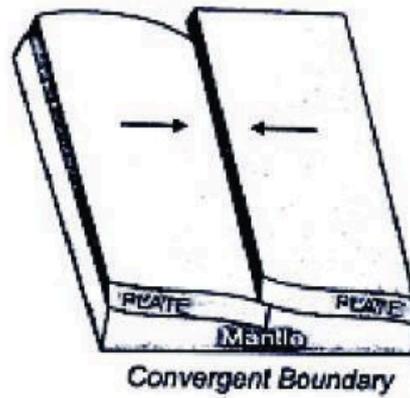
CHAPTER – 2

PHYSICAL FEATURES OF INDIA

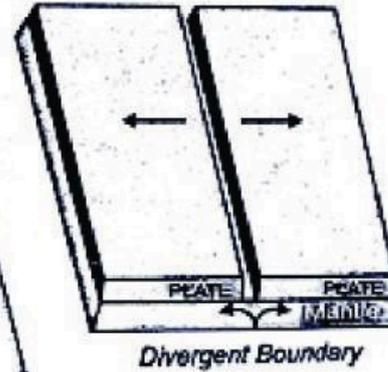
POINTS TO REMEMBER:

- **Theory of plate tectonics:** this theory tries to explain the formation of physical features of the earth.
- According to this theory, the crust (upper part) of the earth has been formed out of **seven major plates**.
- **Plate movements:** The plate movements have been classified into three types:
 - (i) **Convergent Boundary:** Some plates come towards each other and form convergent boundary.
 - (ii) **Divergent Boundary:** Some plates move from each other and form divergent boundary.
 - (iii) **Transform Boundary:** When two plates come towards each other, they may collide and crumble, or one may slide under the other. At times, they may also move horizontally past each other and form transform boundary.

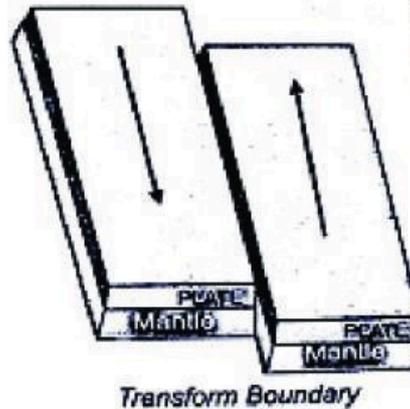




Convergent Boundary



Divergent Boundary



Transform Boundary

PLATE BOUNDARIES

- The oldest landmass was (the peninsular part) was part of the **Gondwana land**.
- The Himalayan Mountains have uplifted out of the **Tethys Sea**.
- **Major physiographic Division of India:** The physical features of India can be grouped as under:
 - (i) The Himalayan Mountains
 - (ii) The Northern Plains
 - (iii) The Peninsular Plateau
 - (iv) The Indian Desert
 - (v) The Coastal Plains
 - (vi) The Islands

- **The Himalayan Mountains:**

- The Himalayas, geologically young and structurally fold mountains stretch over the northern borders of India.
- Total length of the Himalayas is 2400 Km. Their width varies from 400 Km in Kashmir to 150 Km in Arunachal Pradesh.
- The Himalayas consists of three parallel ranges in its **longitudinal extent**:
 - (a) **Great or Inner Himalayas or the Himadri**- It is the northern most range of the Himalayas. It is the most contiguous range and contains all the prominent Himalayan peaks. (Average height-6,000 metres). Some highest peaks include- Mount Everest, Kanchenjunga, Makalu, Naga Parbat etc.
 - (b) **Himachal (lesser Himalaya)**- The altitude varies between 3,700 and 4,500 metres. Pir Panjal, Dhauladhar and Mahabharat are important range. Famous valley of Kashmir is also in this range.
 - (c) **Shivaliks**- This is the outermost range of the Himalayas. The altitude varies between 900 and 1100 metres. The longitudinal valley lying between lesser Himalayas and the Shivaliks are known as Duns. Dehra Dun, Kotli Dun and Patli Dun are some of the well known Duns.
- Further, the Himalayas have been divided on the basis of regions from west to east. These divisions have been **demarcated by river valleys**. These are:
 - (i) **Punjab Himalayas**- between Indus and Sutlej rivers.
 - (ii) **Kumaon Himalayas**- between Satluj and Kali rivers.
 - (iii) **Nepal Himalayas**- between Kali and Tista rivers.
 - (iv) **Assam Himalayas**- between Tista and Dihang rivers.

- **The Northern Plain:**

The Northern Plain has been formed by the interplay of the three major river systems, namely- **the Indus, the Ganga and the Brahmaputra** along with their tributaries.

- This plain is formed of **alluvial soil**. It is agriculturally a very productive part of India.

- The northern Plain is broadly divided into **three sections**:
 - (a) **Punjab Plains**- This is the western part of the Northern Plain. It is formed by the Indus and its tributaries- the Jhelum, the Chenab, the Ravi, the Beas and the Satluj. This section of the plain is dominated by the *doabs* ('do' means two and 'ab' means water)
 - (b) **The Ganga Plain**- It extends between Ghaggar and Teesta rivers. It is spread over the states of Haryana, Delhi, U.P., Bihar, Jharkhand and West Bengal.
 - (c) **The Brahmaputra Plain**- This plain is formed by the Brahmaputra and its tributaries. It lies mainly in the state of Assam.
- The Northern Plain can be divided into four regions according to the **variations in relief features**-
 - (i) **Bhabar**- This region lies parallel to the slopes of the Shivaliks. The rivers, after descending from the mountains deposit pebbles in this region. All the streams disappear in this bhabar belt.
 - (ii) **Terai**- It lies to the south of bhabar. The streams and rivers re-emerge here. It is a wet, swampy and marshy region.
 - (iii) **Bhangar**- Bhangar is the largest part of the northern plain and is formed of the oldest alluvial soil. They lie above the flood plains of the rivers and present a terrace like feature. The soil in this region contains calcareous deposits locally known as kankar.
 - (iv) **Khadar**- The floodplains formed by newer and younger deposits are called khadar. They are renewed almost every year and so are fertile.

- **The Peninsular Plateau:**

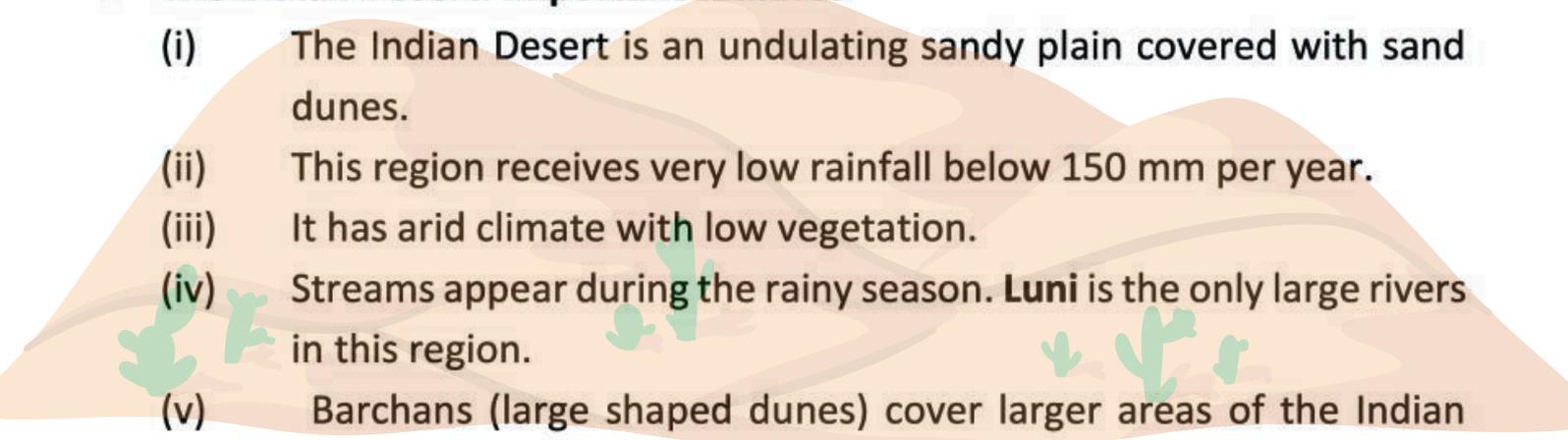
It is composed of the old crystalline, igneous and metamorphic rocks. It was part of the Gondwana land and thus, making it a part of the oldest landmass.

- The Peninsular Plateau consists of two broad divisions, namely, **the Central Highlands and the Deccan Plateau.**
- **Western Ghats and Eastern Ghats: A comparison**

Western Ghats		Eastern Ghats	
(i)	The Western Ghats lie along the Arabian sea	(i)	The Eastern Ghats lie along the Bay of Bengal.
(ii)	They are continuous and can be crossed through passes only.	(ii)	They are discontinuous and irregular and dissected by rivers.
(iii)	Average height is 900-1600 metres.	(iii)	Average height is 600 metres
(iv)	Highest peak- Anai Mudi (2,695 metres)	(iv)	Highest peak- Mahendragiri (1,501 metres)

- The black soil area of the peninsular plateau is known as **Deccan Trap**. This is of volcanic origin and hence the rocks are igneous.

- **The Indian Desert: Important features**

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- (i) The Indian Desert is an undulating sandy plain covered with sand dunes.
 - (ii) This region receives very low rainfall below 150 mm per year.
 - (iii) It has arid climate with low vegetation.
 - (iv) Streams appear during the rainy season. **Luni** is the only large rivers in this region.
 - (v) Barchans (large shaped dunes) cover larger areas of the Indian Desert.

- **The Coastal Plains:** Some of the important features of western coast and eastern coast are as follows:

The western coast:

- (i) It is located between the Western Ghats and the Arabian Sea.
- (ii) It is relatively narrow.
- (iii) It consists of three sections. The northern part of the coast is called the Konkan, the central stretch is called the Kannad

Plain while the southern stretch is referred to as the Malabar coast.

The eastern coast:

- (i) It lies between the Eastern Ghats and the Bay of Bengal.
 - (ii) This plain is wide and level.
 - (iii) It is divided into two parts. In the northern part, it is referred to as the *Northern Circar*, while the southern part is known as the *Coromandel Coast*.
 - (iv) Large rivers such as the Mahanadi, the Godavari, the Krishna and the Kaveri have formed extensive delta on this coast.
- The **Chilka Lake** is the largest salt water lake in India. It is in the state of Odisha.
 - **The Islands:** The Islands in India is divided into two parts:
 - (i) **Lakshadweep Islands:**
 - (a) This group of Islands is composed of small coral islands.
 - (b) It covers small area of 32 sq. km. Kavaratti island is the administrative headquarters of Lakshadweep.
 - (c) This island group has great diversity of flora and fauna.
 - (ii) **The Andaman and Nicobar islands:**
 - (a) These islands are located in the Bay of Bengal extending from north to south.
 - (b) The entire group of island is divided into two broad categories – The Andaman in the North and the Nicobar in the south.
 - (c) It is believed that these islands are an elevated portion of submarine mountains.
 - (d) These islands lie close to equator and experience equatorial climate and have thick forest cover.