

GEOGRAPHY

SYLLABUS:

PHYSICAL AND POLITICAL DIVISIONS OF
INDIA AND THE WORLD

WEIGHTAGE:

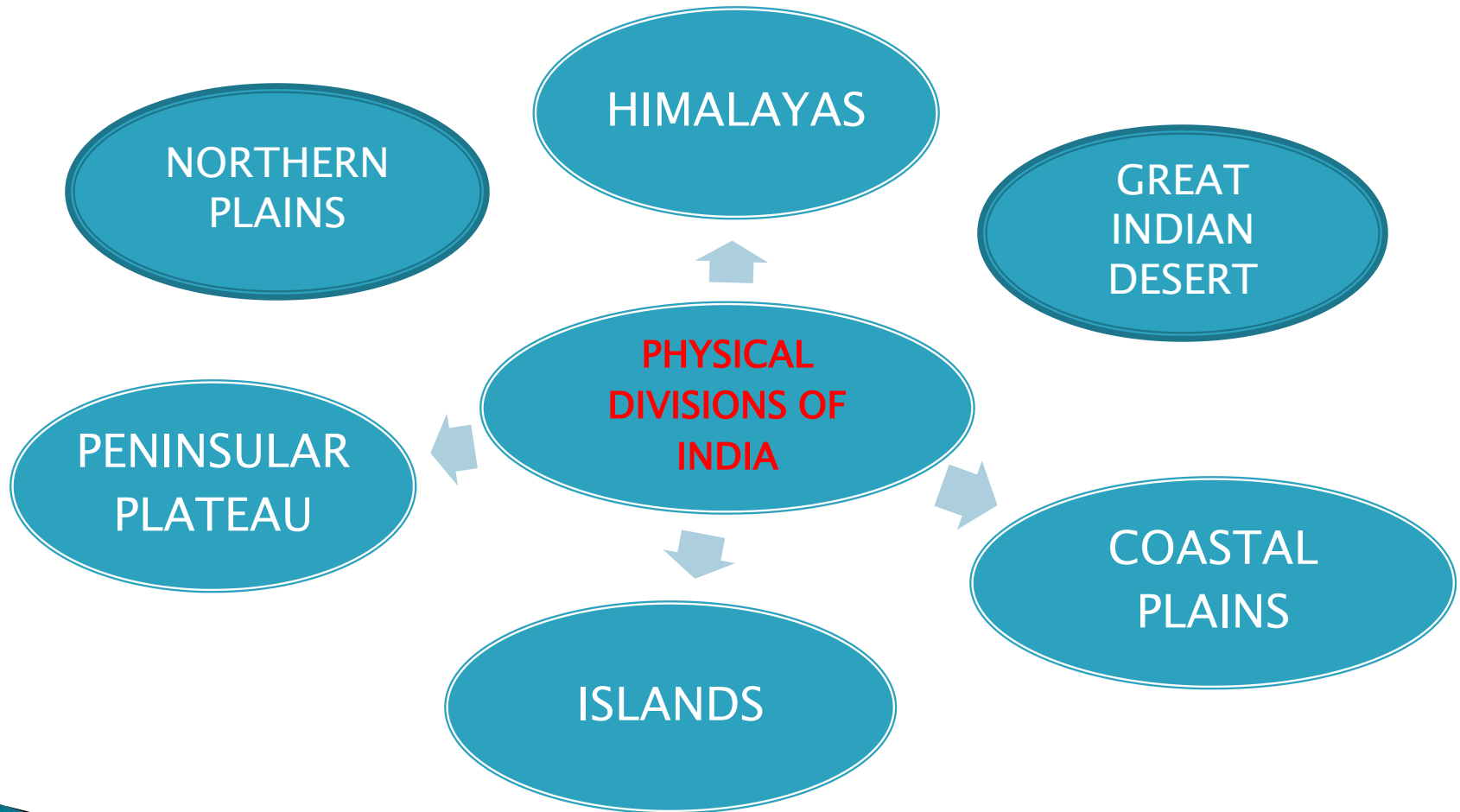
3 TO 5+ MARKS

LECTURE 1: PHYSICAL DIVISIONS OF
INDIA (OVERVIEW)

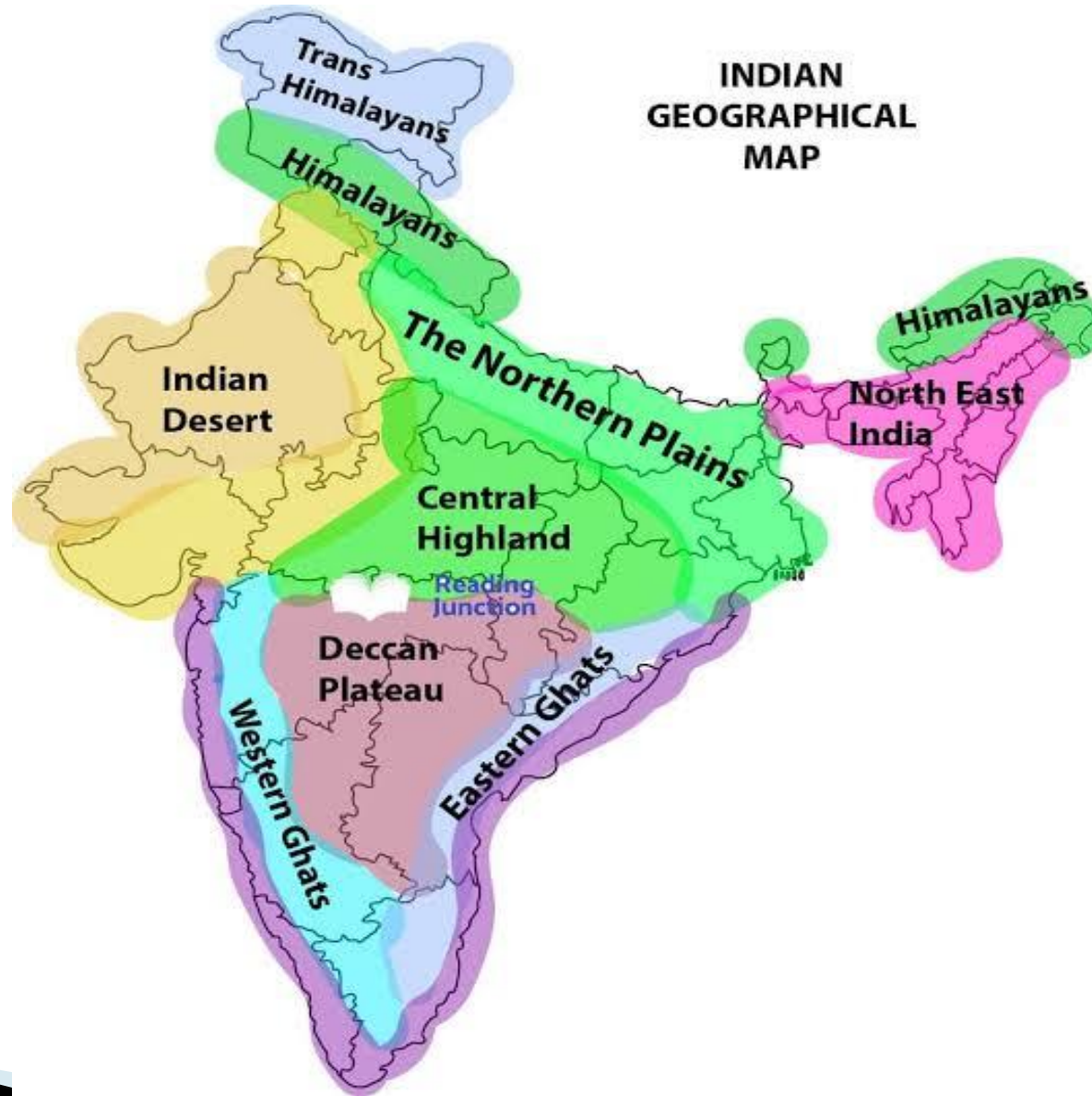
DIVERSITY OF PHYSICAL DIVISIONS

- ▶ MOUNTAINS
 - ▶ PLAINS
 - ▶ PLATEAUS
 - ▶ COASTAL PLAINS
 - ▶ ISLANDS
- 

PHYSICAL DIVISIONS OF INDIA



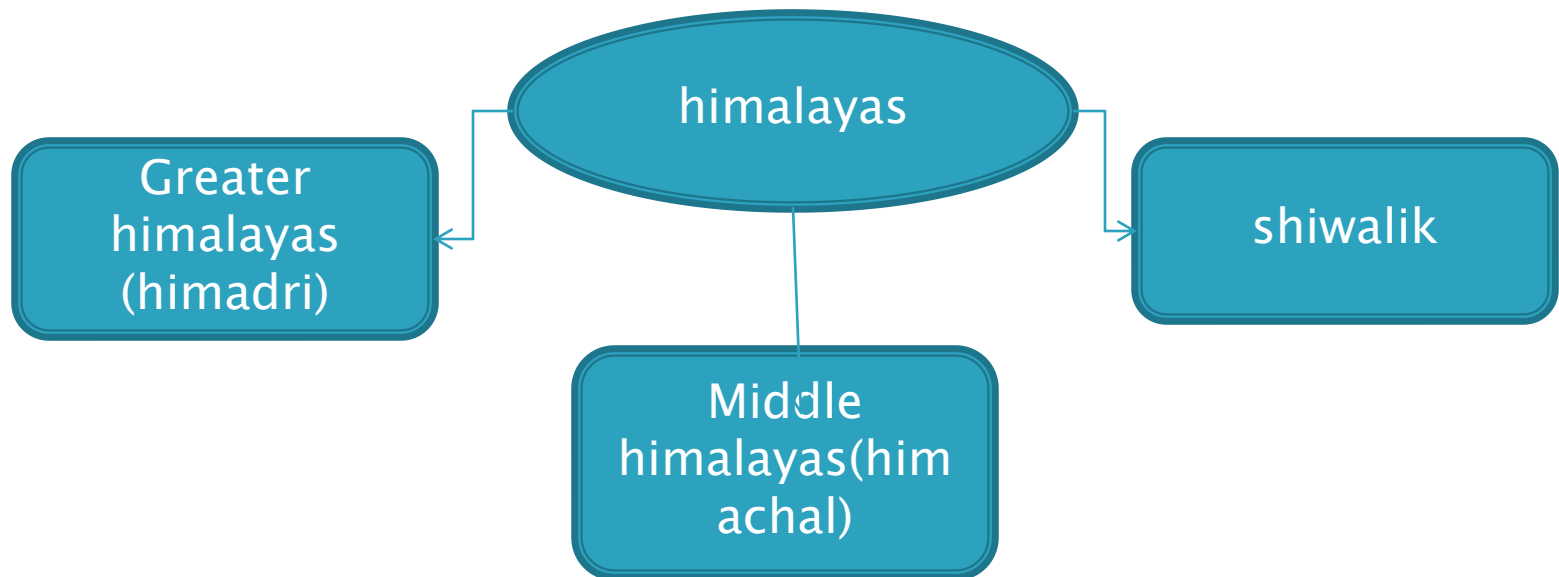
INDIAN GEOGRAPHICAL MAP



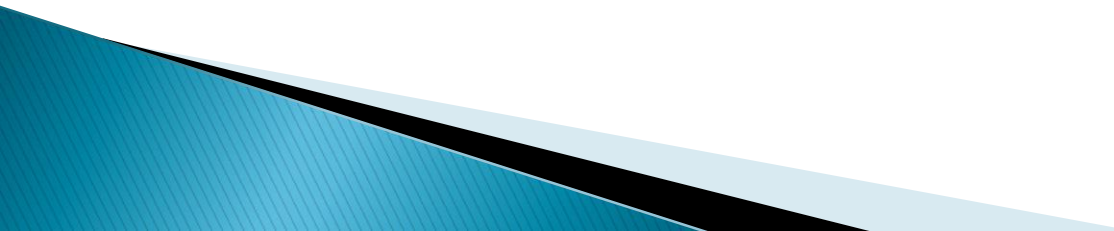


HIMALAYAS

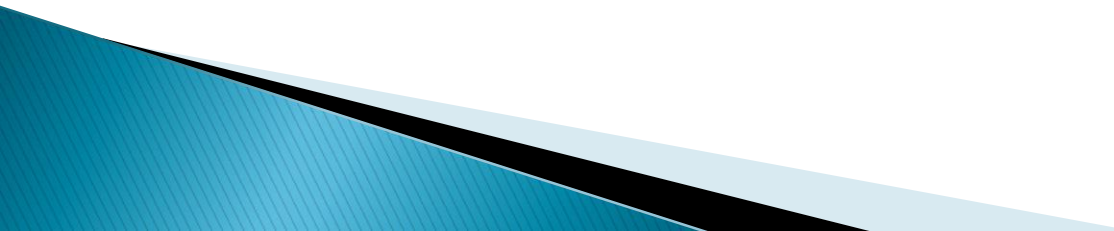
- ▶ Him+alaya=“the abode of snow”
- ▶ Three parallel ranges
- ▶ Northern frontiers of India



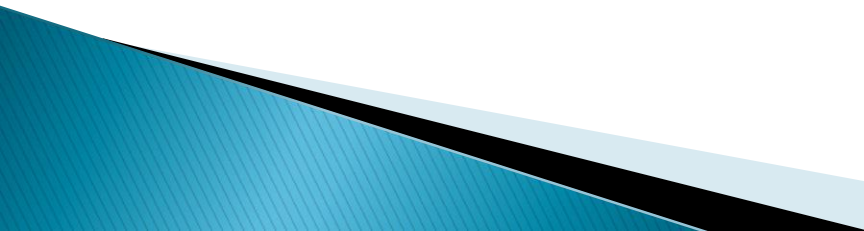
Northern plains

- ▶ Lies to the south of himalayas.
 - ▶ Formed by the alluvial deposits laid down by the rivers–indus,ganga,brahmaputra and their tributries
 - ▶ Have fertile land for cultivation
 - ▶ Concentration of population is high
 - ▶ Ganga brahmaputra delta(sunderban delta or bengal delta or green delta)–where the ganga and brahmaputra rivers discharge into the bay of bengal.
- 

The great indian desert

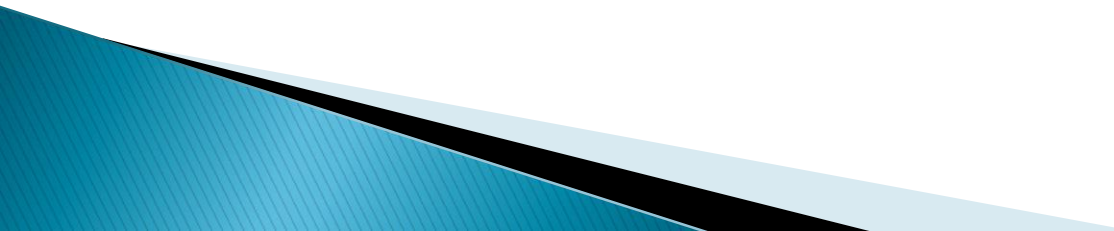
- ▶ Thar desert
 - ▶ Dry ,hot and sandy stretch of land
 - ▶ Very little vegetation
 - ▶ The desert continues into pakistan as the cholistan desert.
 - ▶ Most of the thar desert is situated in rajasthan, covering 61%of its geographic area.
- 

PENINSULAR PLATEAU

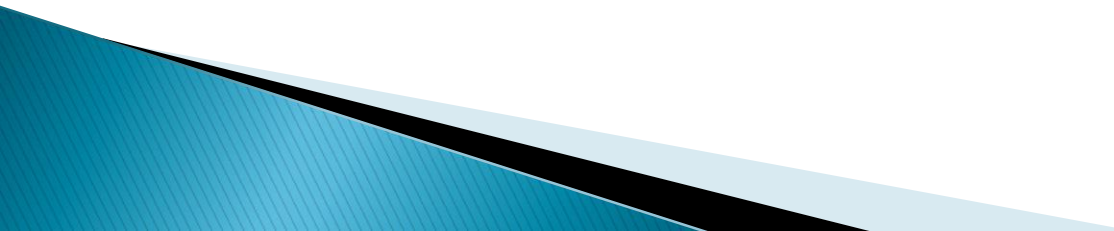
- ▶ Triangular in shape.
 - ▶ Peninsular(three sides covered by water)
 - ▶ Plateau(raised from the ground)
 - ▶ Relief is highly uneven(numerous hill ranges & valleys)
 - ▶ Aravalli hills
 - ▶ Vindhyas
 - ▶ Satpuras(narmada and tapi)
 - ▶ The western ghats(or sahyadri)
 - ▶ Eastern ghats
 - ▶ The plateau is rich in minerals like coal & Iron ore.
- 



Coastal plains


- ▶ West of western ghats and east of the eastern ghats lies the coastal plains
 - ▶ Western coasts(konkan coast, kannad coast, Malabar coast)
 - ▶ Eastern coasts(coromandal coast,northern circar coast)
 - ▶ East flowing rivers(mahanadi,krishna, kaveri drain into bay of bengal)
- 

ISLANDS

- ▶ 2 island groups of india:
 - ▶ Lakshadeep and Andaman and nicobar
 - ▶ Lakshadeep(in arabian sea,coral island located off the coast of kerala)
 - ▶ Corals(corals are skeletons of tiny marine animals called polyps.when polyps die,their hard skeletons are left behind.other polyps grow on these thus forming the coral islands.
- 

- ▶ Andaman and nicobar island
- ▶ In the bay of bengal
- ▶ Southeast of indian union

MCQ:

- ▶ **CONSIDER THE FOLLOWING STATEMENTS:**
 - ▶ i) the traditional name of western ghats is sahyadri
 - ▶ ii) middle himalayas are also known as himachal
 - ▶ iii) Narmada is an east flowing river
 - ▶ iv) krishna river drains in bay of bengal
 - ▶ Options
 - ▶ a) i, ii & iii are correct
 - ▶ b) i, ii & iv are correct
 - ▶ c) All are correct
 - ▶ d) None is correct
- 

GEOGRAPHY

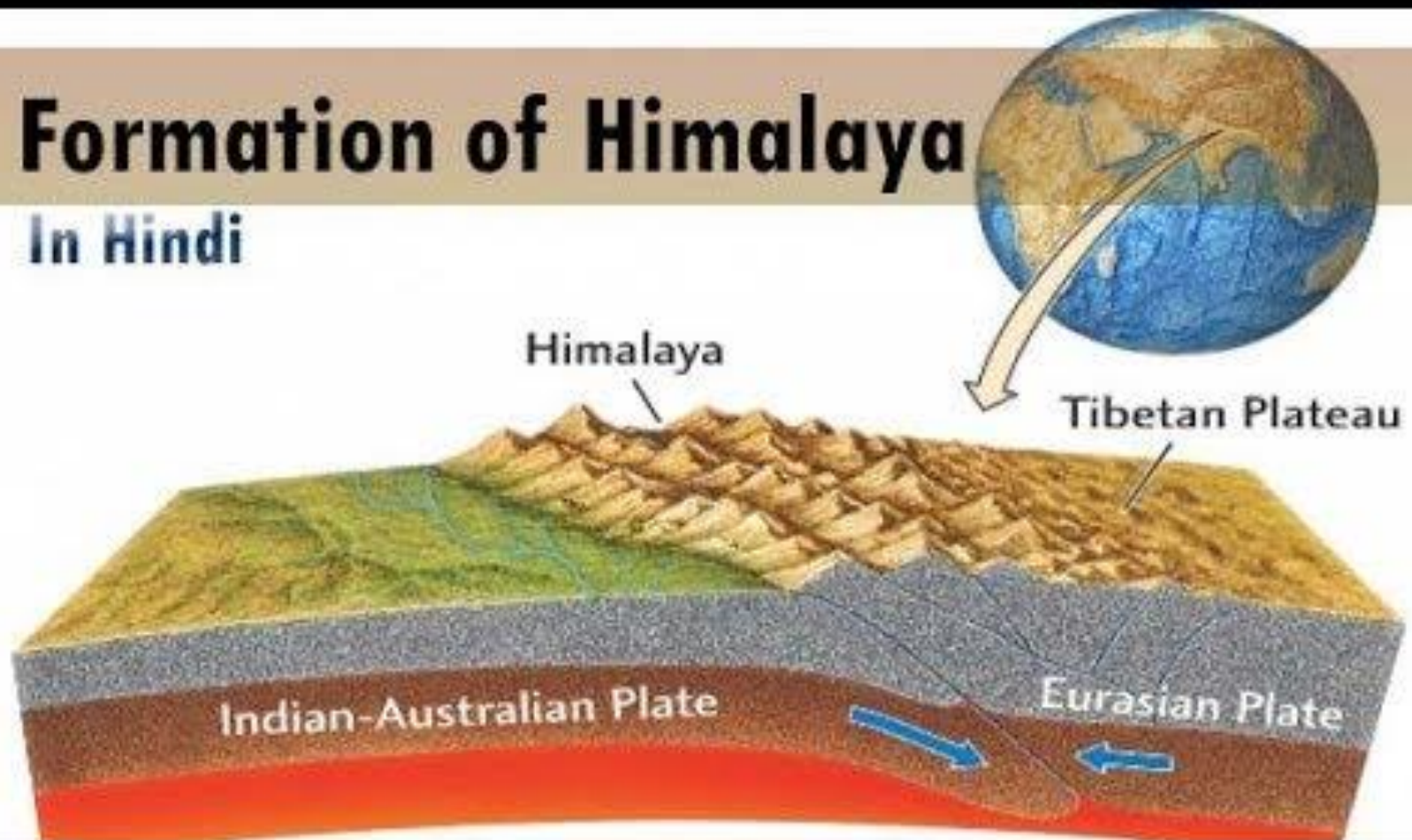
- **PHYSICAL DIVISIONS OF INDIA:**

- HIMALAYAS:**

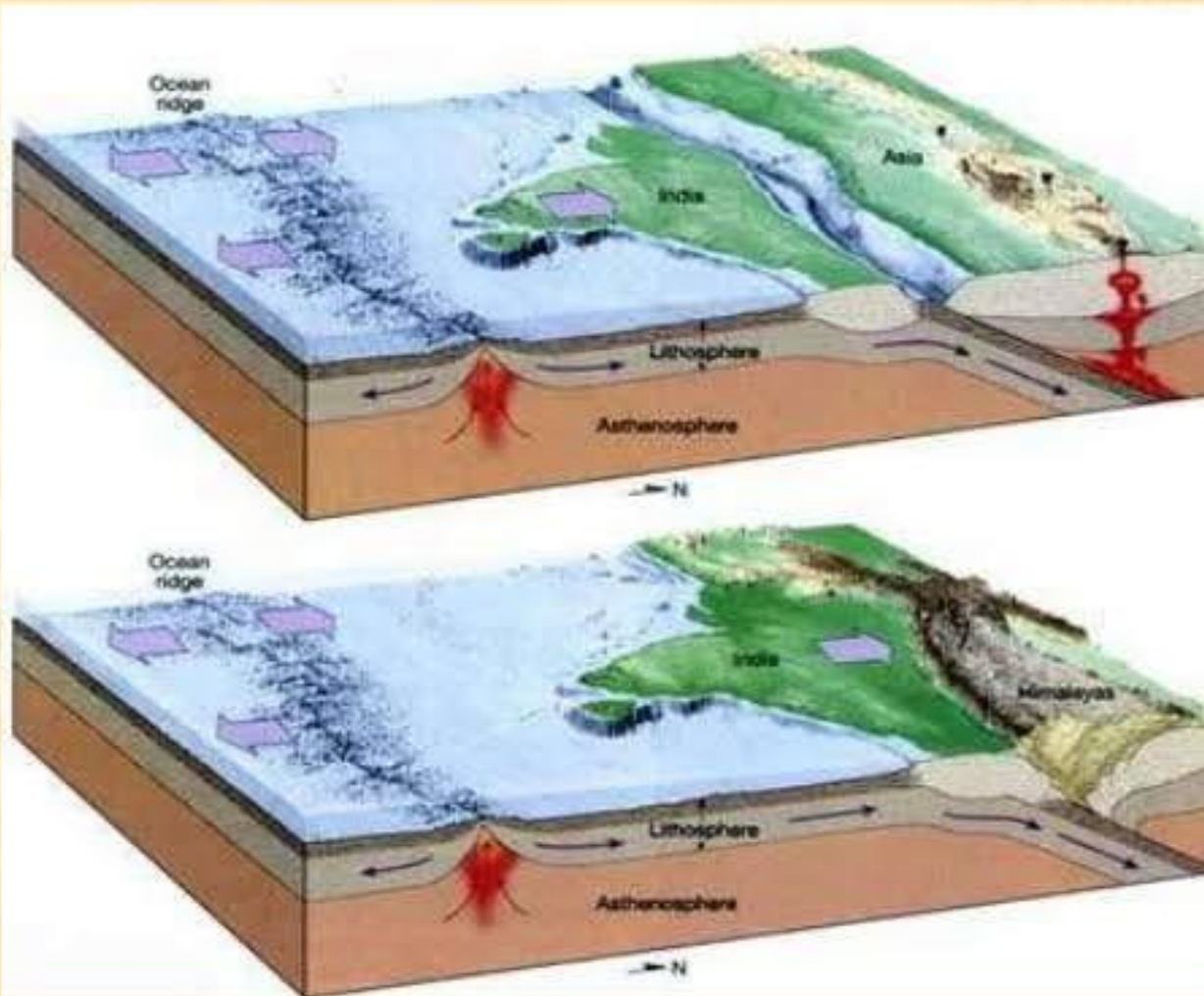
- **HIMADRI (GREATER HIMALAYAS)**
 - **HIMACHAL (MIDDLE HIMALAYAS)**
 - **SIWALIK(OUTER HIMALAYAS)**

Formation of Himalaya

In Hindi



PROCESS OF THE FORMATION OF THE HIMALAYAS



FORMATION OF HIMALAYAS

- The highest mountain range in the world, the snow-capped Himalayas is an example of a continent-to-continent collision.
- This immense mountain range began to form when two large landmasses – **INDO-AUSTRALIAN** plate and **EURASIAN PLATE** driven by tectonic plate movements began to collide.
- Because both masses have about the same rock density, one plate could not be subducted under the other; hence, they folded to form the Himalayas.

- Both of these plates are the same density.
- As the plates keep pushing against each other, there is no place for the crust to go except bend upwards.
- The plates are still running into each other and the Himalayas are growing by more than 1 cm each year.

PLATES

- **Plate:** The earth's crust is split into several plates.
- These plates float on top of magma (a hot, thick, gel-like substance).
- When currents inside the earth move the magma, the plates move too.
- This movement sometimes causes mountains to form.

HIMALAYAS

```
graph TD; H([HIMALAYAS]) --> W[Western himalayas]; H --> E[Eastern himalayas]; W --> P[Punjab himalayas( between the indus and sutlej)]; W --> K[Kumaon himalayas(betw een sutlej and kali)]; E --> N[Nepal himalayas (between kali and kosi)]; E --> S[Sikkim (between kosi and teesta)]; E --> A[Assam(be tween kosi and brahmpu tra(dihan g))];
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Western himalayas

Eastern himalayas

Punjab
himalayas(
between
the indus
and sutlej)

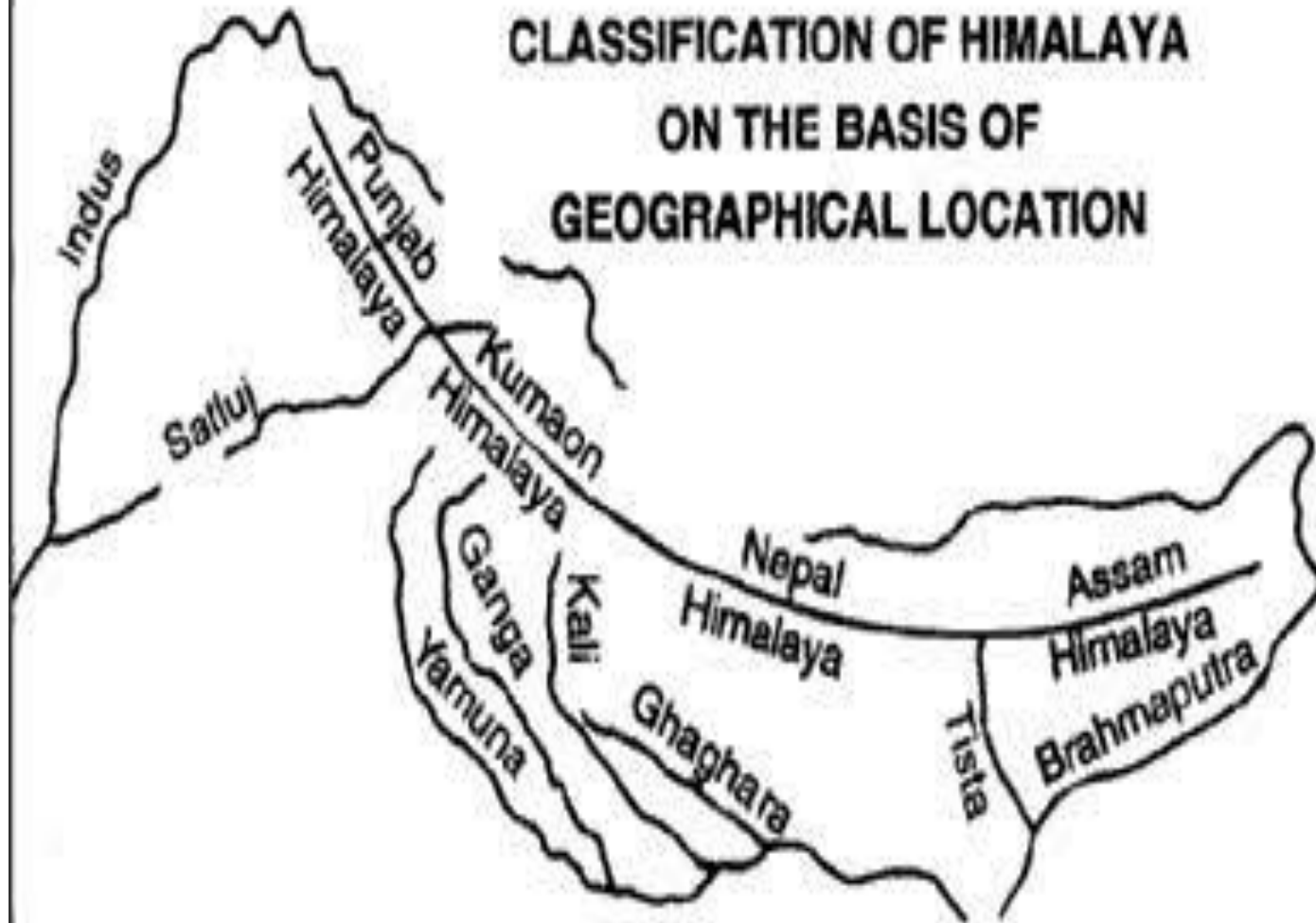
Kumaon
himalayas(betw
een sutlej and
kali)

Nepal
himalayas
(between
kali and
kosi)

Sikkim
(between
kosi and
teesta)

Assam(be
tween
kosi and
brahmpu
tra(dihan
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**CLASSIFICATION OF HIMALAYA
ON THE BASIS OF
GEOGRAPHICAL LOCATION**



- **HIMADRI**

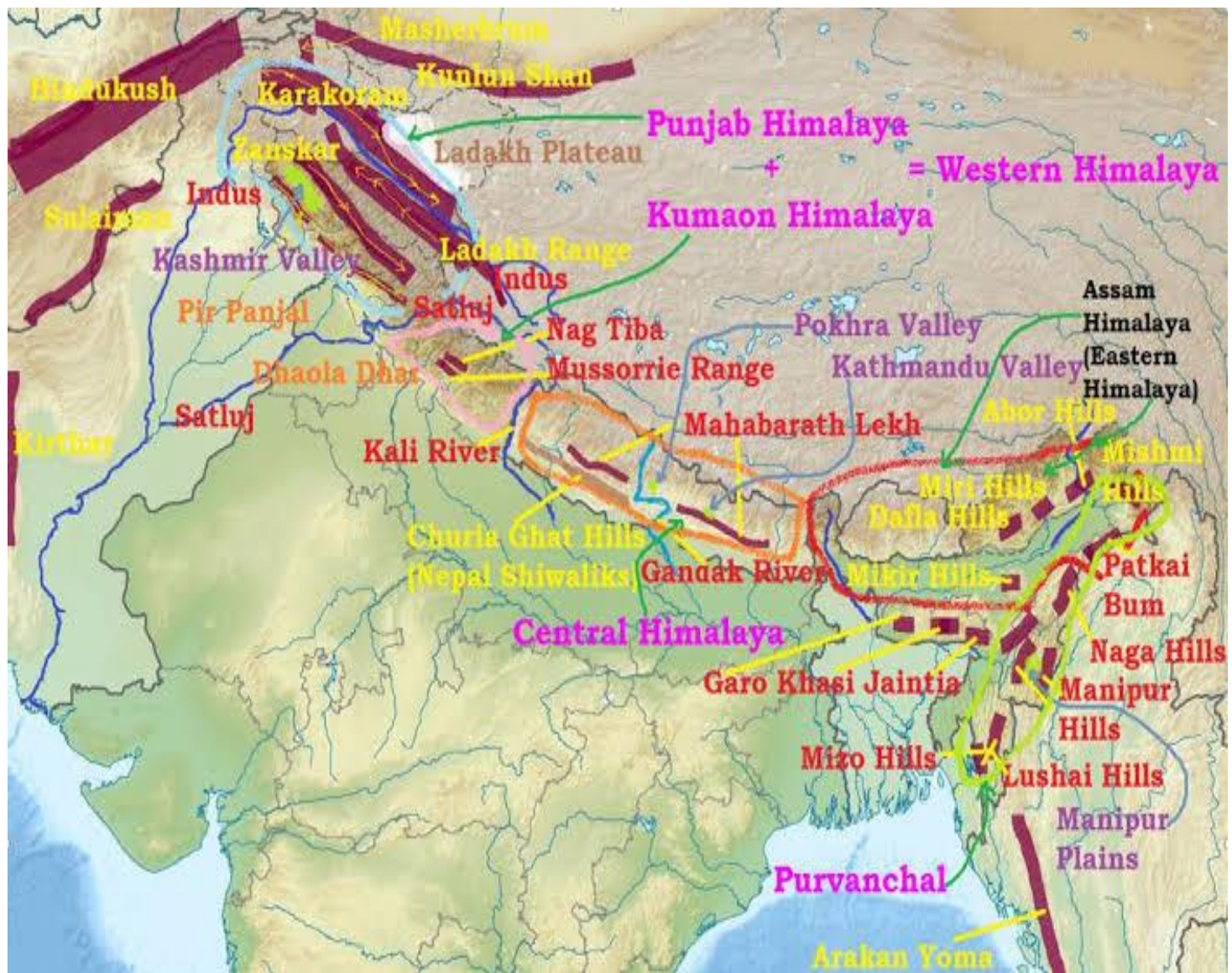
- This is the northernmost and the highest range of the Himalayas.
- This is the only range of the Himalaya which maintains its continuity from west to east.
- The extent of this range is between the Nanga Parbat peak (8126 m.) in the west and Namcha Barva peak (7756 m.) in the east.
- The average height of this range from sea level is about 6100 meters.
- Over 100 peaks have a height of more than the average height of the range.
- The highest peak of the world, Mount Everest, (8848 m) is situated in this range.

- Kanchenjunga, Makalu, Dhaulagiri, Annapurna are some of the other peaks having a height of more than 8000 meters.
- Kanchenjunga is the highest peak of the Himalayas in India.
- The Himadri range is snow clad throughout the year.
- There are a number of large and small glaciers.
- After melting of snow and ice, their waterfalls in the rivers of northern India making them perennial throughout the year.
- Gangotri and Yamunotri are good examples of such glaciers.
- The Himadri range can be crossed through some passes like Zojila, Shipki la, Niti, Nathula, etc.

HIMACHAL

- It is located southwards of Himadri.
- The breadth of Himachal range is 60 to 80 km and the height varies from 1000 meters to 4500 meters.
- Some of the peaks of this range have a height of more than 5000 meters.
- This range is highly dissected and uneven.
- The gentle slopes of the eastern part of this range are covered with dense forests.
- The south-facing slopes of other parts of this range are very steep and generally devoid of any vegetation.
- The north facing gentle slopes of this range are covered by dense vegetation.

- PirPanjal in Jammu&Kashmir and Dhauladhar in Himachal Pradesh are the local names of this range.
- The beautiful valley of Kashmir extends between the Pir Panjal and Himadri ranges.
- The famous valley of Kullu and Kangra are also a part of Himachal ranges.
- Most of the hill towns or resort towns are located in the Himachal range.
- Shimla, Nainital, Mussoorie, Almora and Darjeeling are some such famous hill towns.

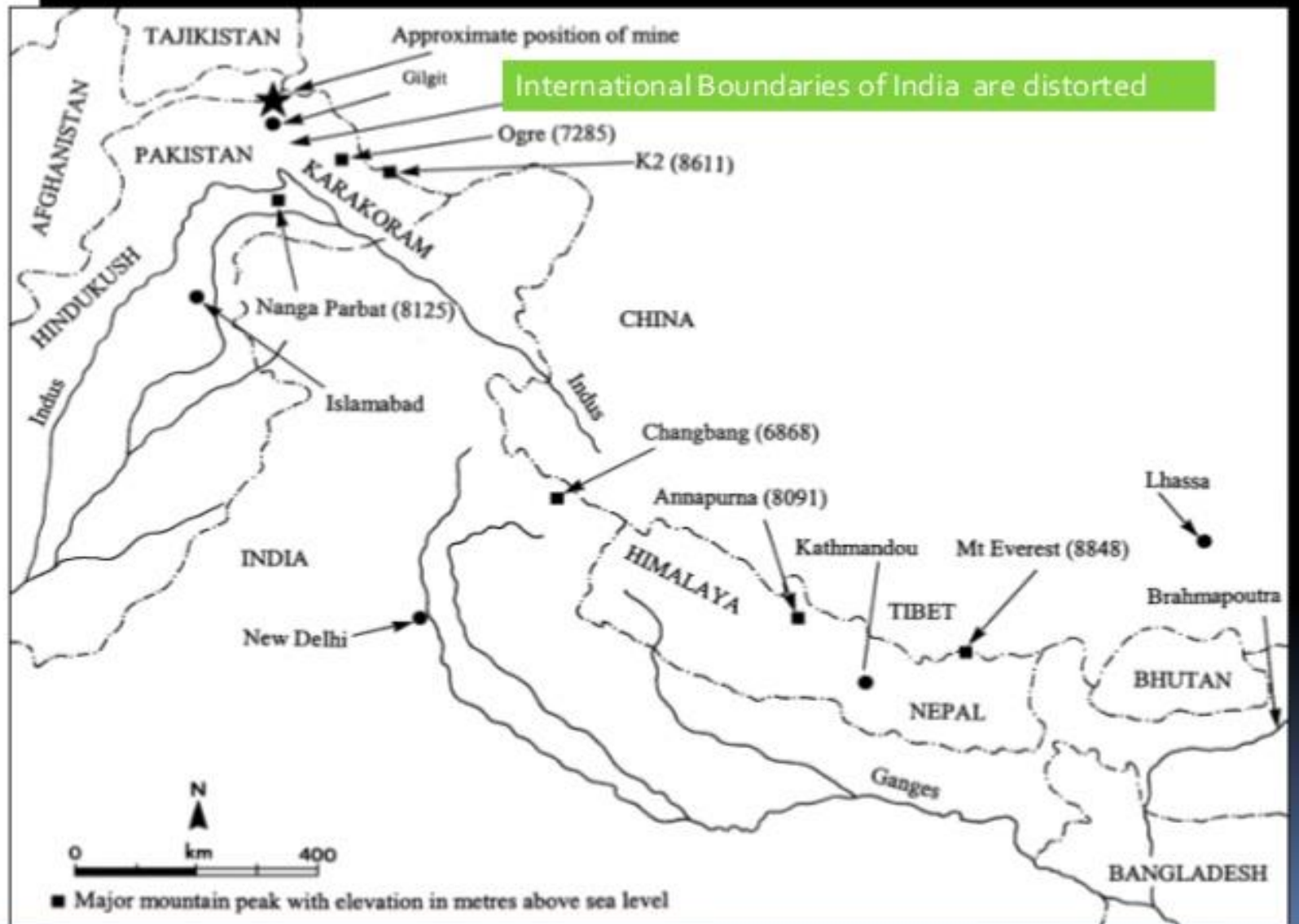


SIWALIK

- The southernmost range of Himalayas is known as Siwalik.
- The Himadri and Himachal ranges of the Himalayas have been formed much before the formation of the Siwalik range.

DUNS AND DWARS/DUARS

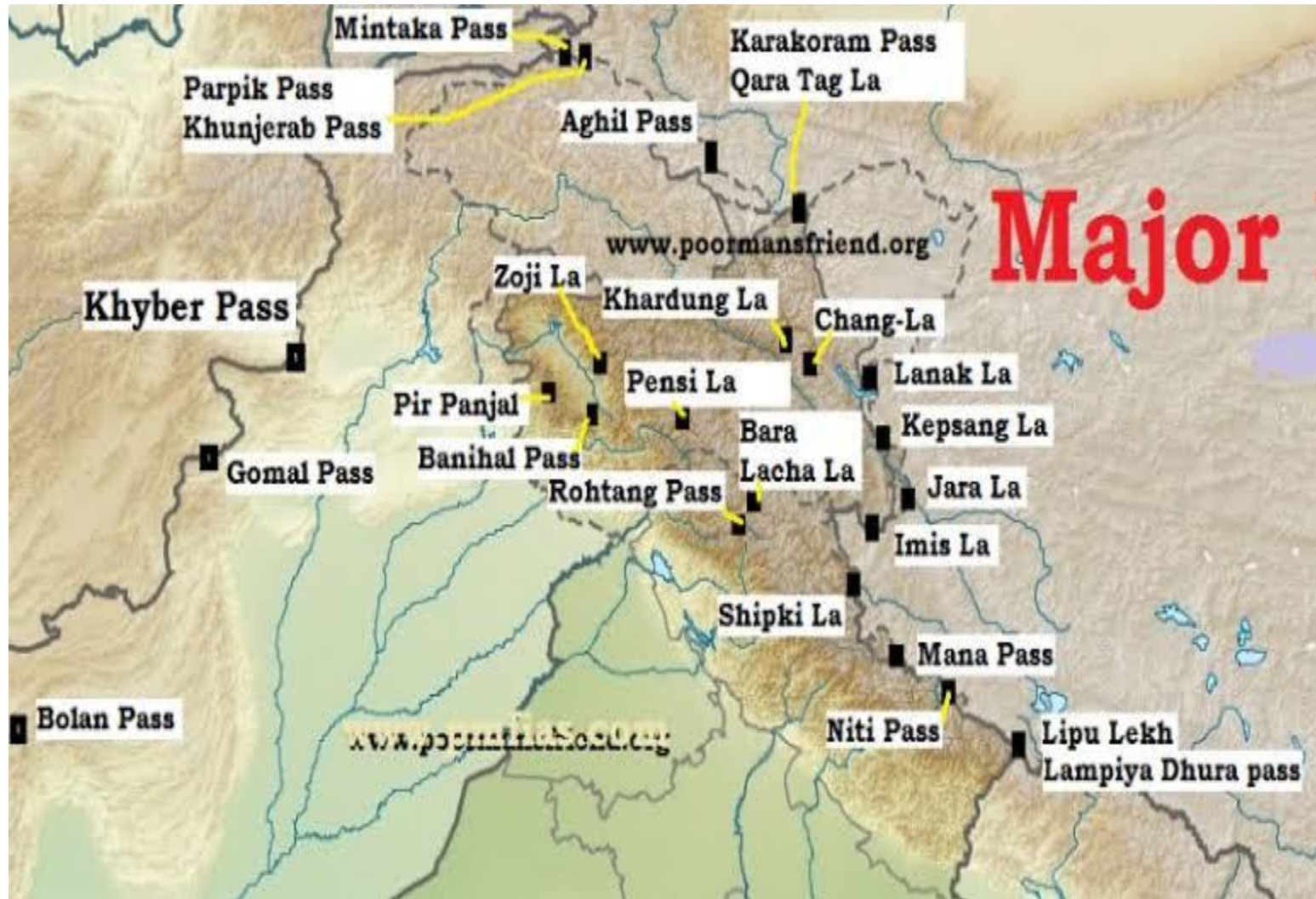
- **Duns**: Longitudinal valleys between middle himalayas and the shivalik in the western himalayan regions examples: dehradun, patlidun, kotlidun
- **Dwars/duars**: between middle himalayas and the shivalik in the eastern himalayan regions.
- The western dwars are important centre for tea cultivation.



Imp Mountain peaks

Peak	Height (Mtrs)	Location
Mt. Everest	8848	Nepal Tibet
Mt. K2	8611	India
Kanchenjunga	8597	Nepal-India
Dhaulagiri	8172	Nepal
Nanga Parbat	8126	India
Annapurna	8078	Nepal
Gasherbrum	8068	India
Nanda Devi	7817	India
Mt. Kamet	7756	India
Gurla Mandhata	7728	Tibet

PASSES





Major Passes in India

KNOWLEDGE CHECK

- MCQ:
 - Arrange from north to south
 - 1) Karakoram range
 - 2) Zaskar range
 - 3) Ladakh range
 - 4) Shivalik range
 - Choose the appropriate answer:
 - A) 1-2-4-3
 - B) 2-1-3-4
 - C) 1-3-2-4
 - D) 4-3-2-1
 - Ganga river originates from _____glacier

GEOGRAPHY

PHYSICAL DIVISIONS OF INDIA

TOPIC: THE NORTHERNS PLAINS OF INDIA

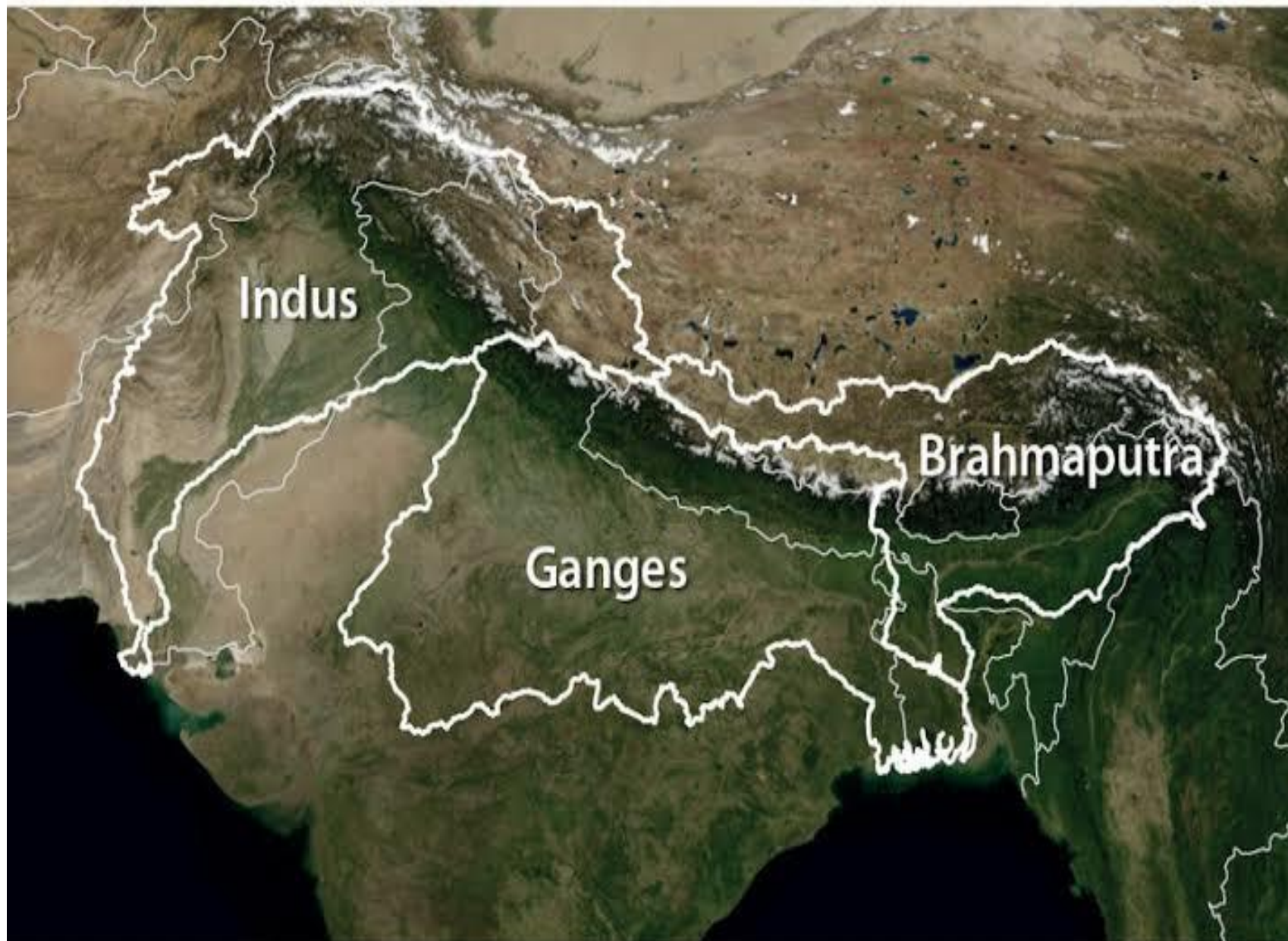
REFERENCE: NCERT 6TH, 9TH AND 11TH CLASS

THE NORTHERN PLAINS - CONTENTS

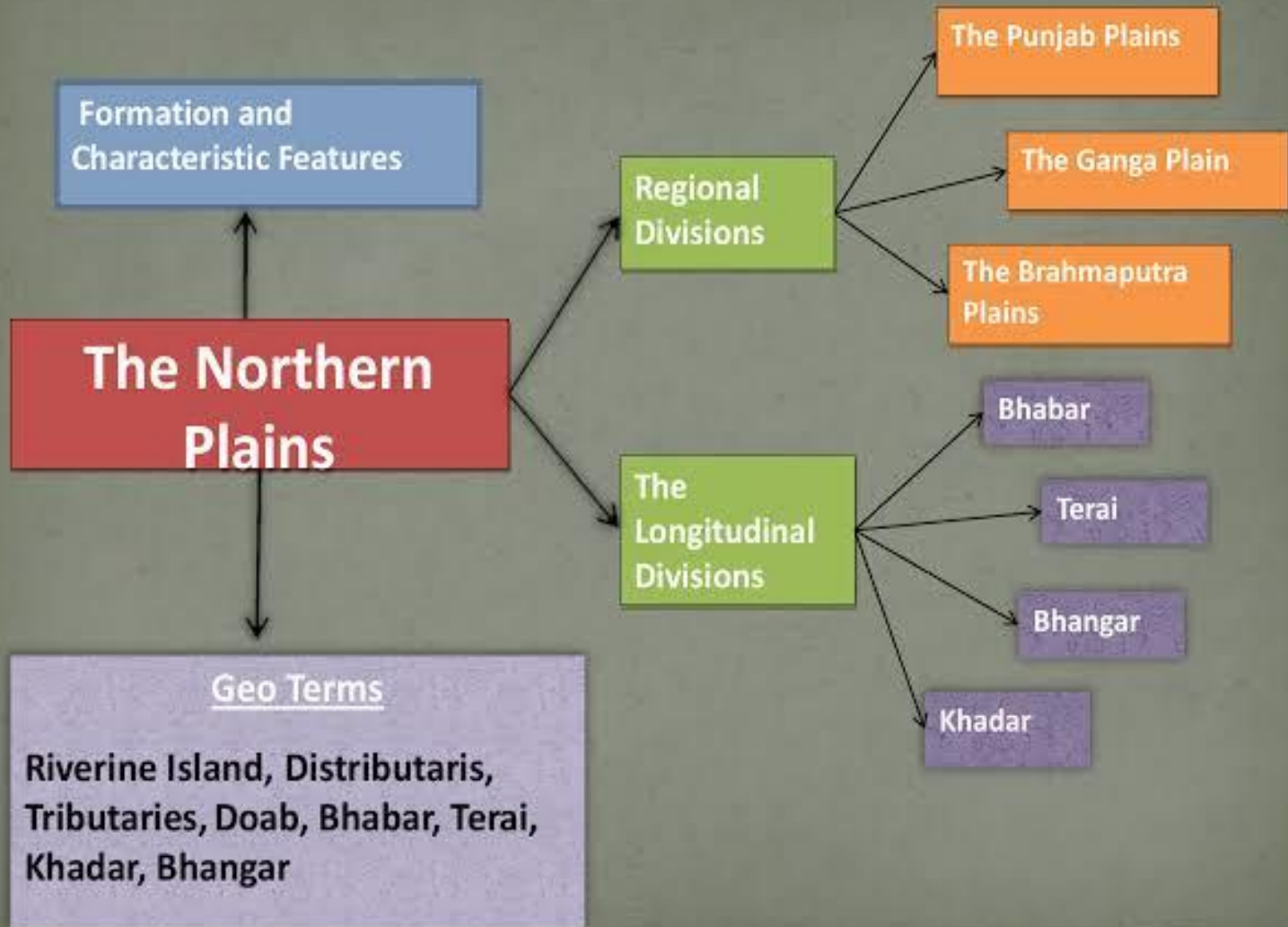


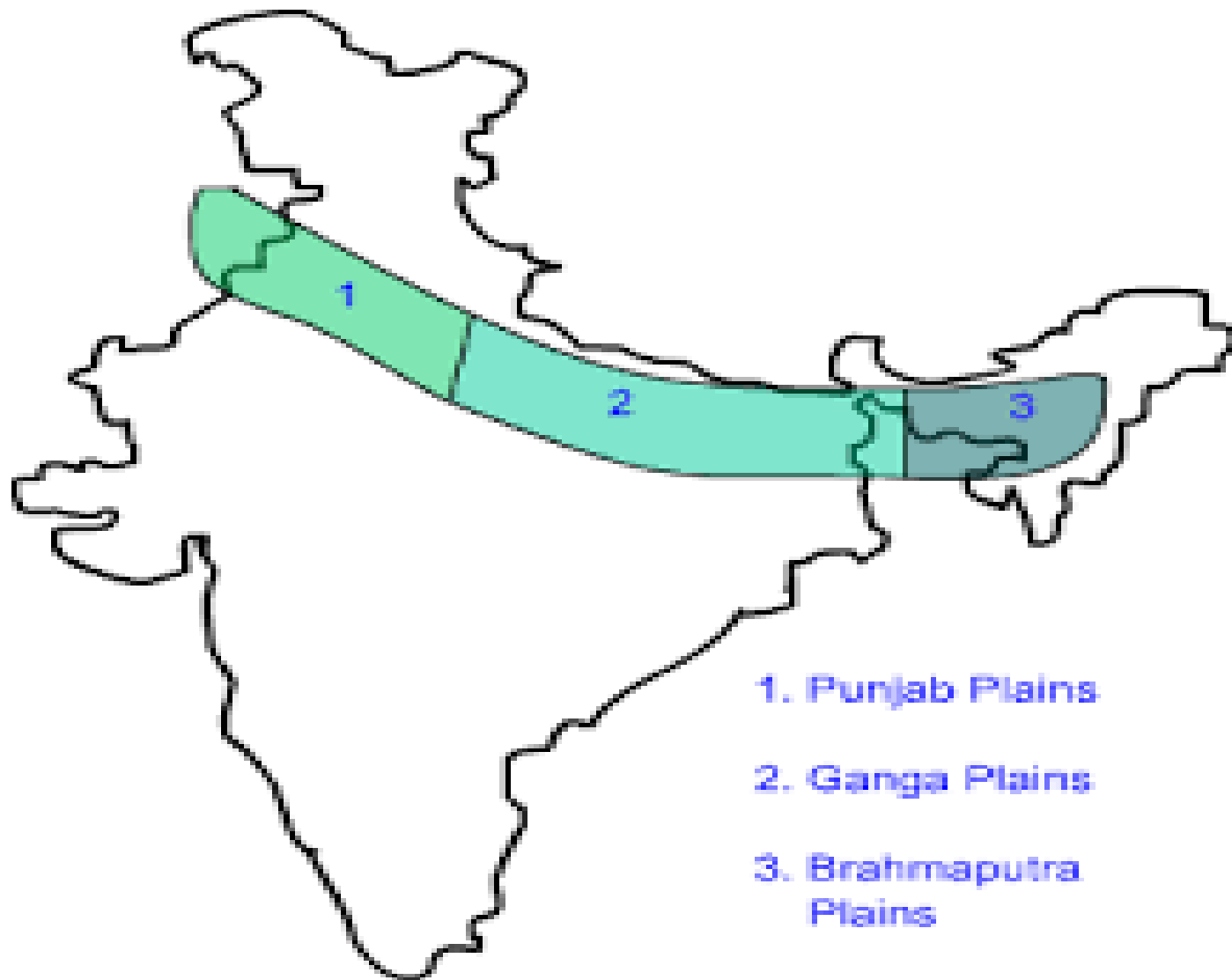
FORMATION OF NORTHERN PLAINS

- Northern Plains were formed by the sediments brought in by three major Himalayan rivers
 - **Indus**
 - **Ganga**
 - **Brahamaputra and their tributaries.**
- When these rivers flowed through the Himalayas, they eroded rocks, transported and deposited the smaller fragments of rocks in the foothills of the Himalayas. After million of years, the accumulation of sediments led to the formation of the Indian Northern Plains.



Mind Map





- **The Northern plains are** also known as Great **plains** or Indo-Gangetic **plains**
- **Northern plains are the** world's **most** intensely farmed areas.
- Most fertile area.
- **Densely populated areas**

INDUS/PUNJAB PLAINS

- The **Punjab Plain** is a large alluvial plain in Eastern Pakistan and Northwestern India. The plain includes the Pakistani province of Punjab and the Indian states of Punjab and Haryana.
- The plain is extensively farmed for cereals and cotton.
- formed by the Indus River and its tributaries - Jhelum, the Chenab, the Ravi, the Beas and the Sutlej. The larger part of Punjab plain lies in Pakistan.

- The land formed of alluvium in between two rivers known as **Doab** are found here.
- It is divided into many Doabs (do-“two” + ab-“water or river” = “a region or land lying between and reaching to the meeting of the two rivers”).

Ganga plains

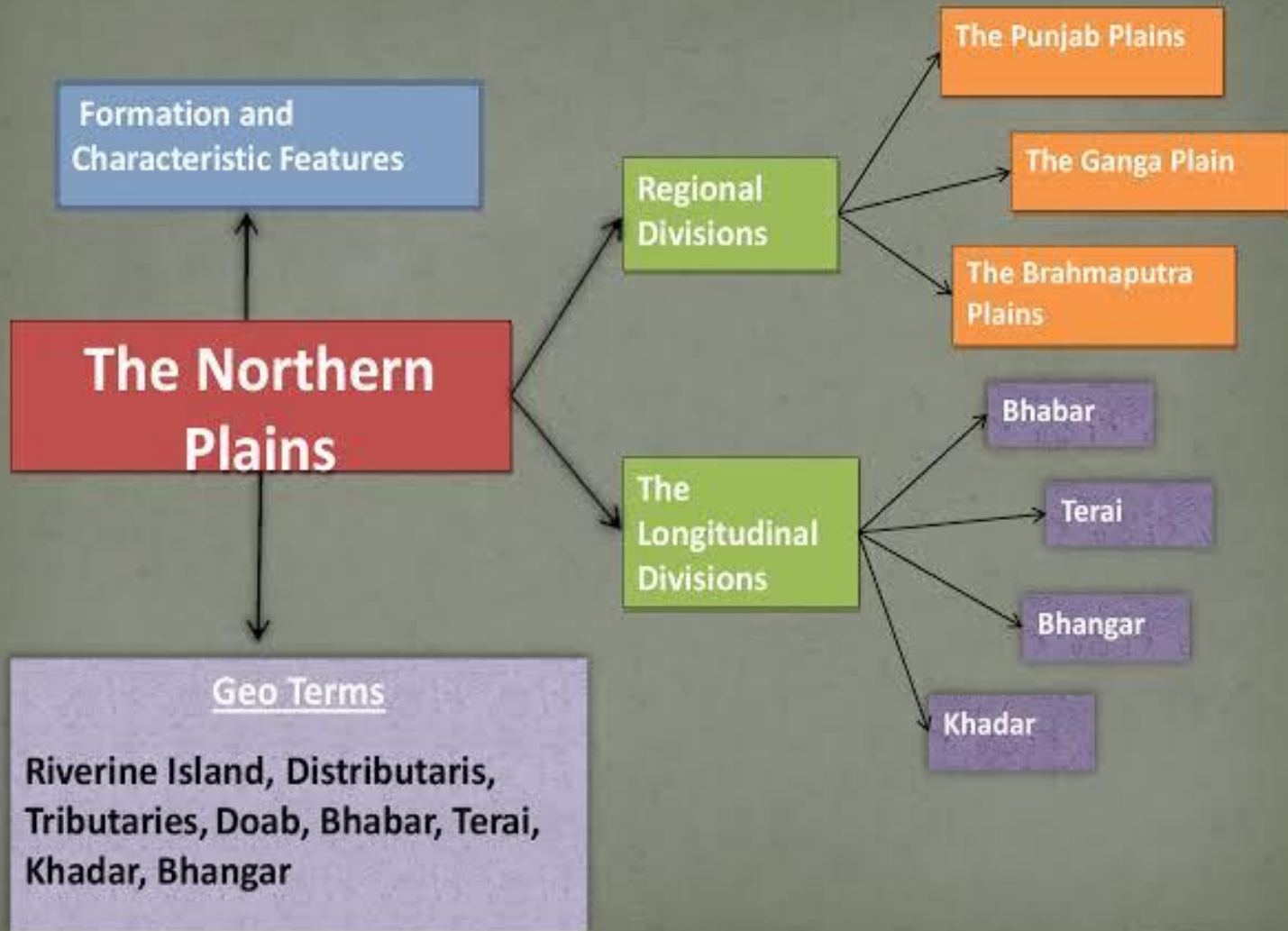
- Ganga plains extend between the river Ghaggar and teesta
- The Ganga plains lie between the Yamuna catchment in the west to the Bangladesh border in the East.
- The northern states, Haryana, Delhi, UP, Bihar, part of Jharkhand and West Bengal in the east lie in the Ganga plains.

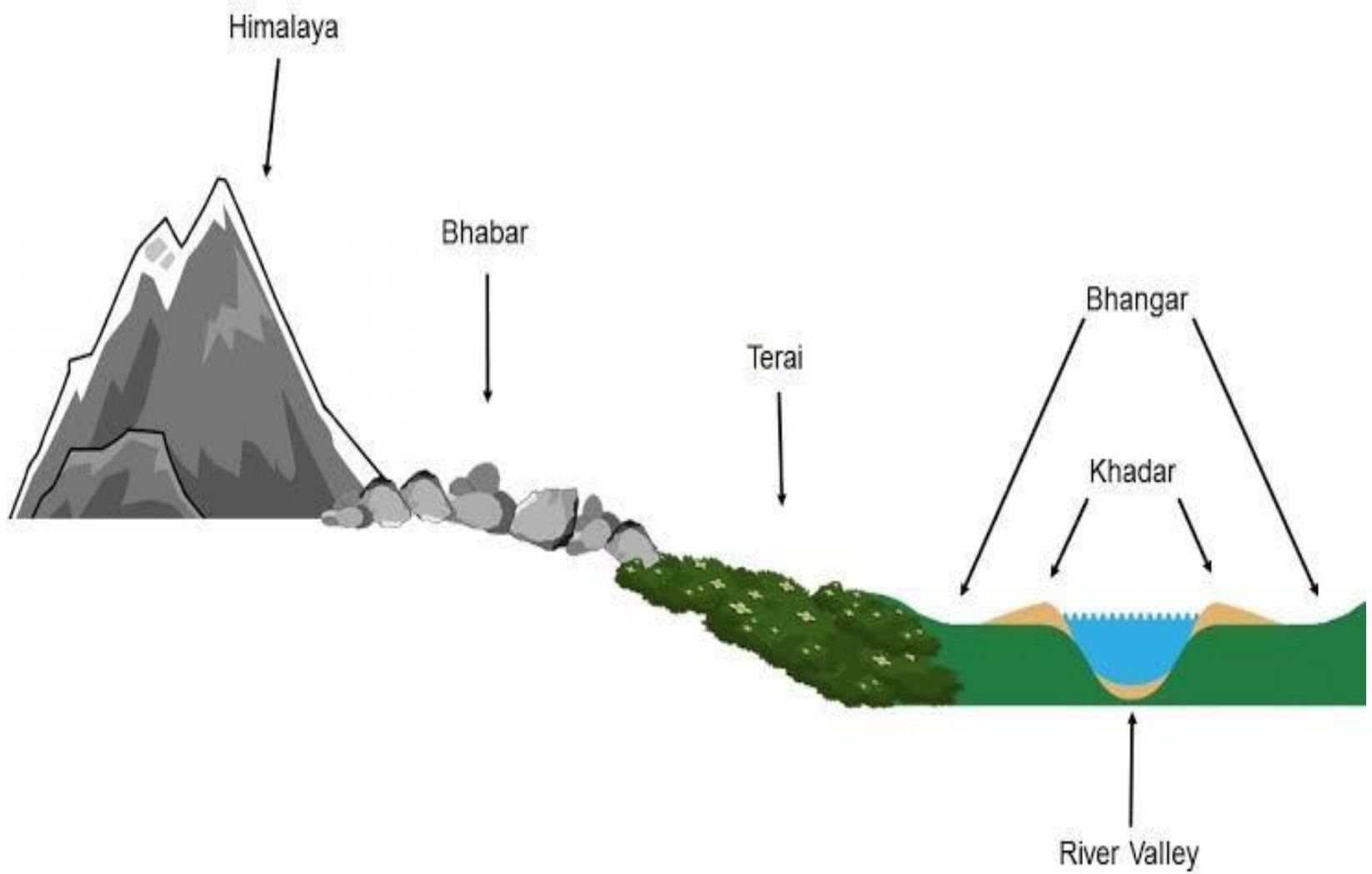
BRAHMPUTRA PLAINS

- To the east of the ganga plains lies the brahmaputra plains
- Mainly lies in assam
- **Delta:** delta is a landform created by deposition of sediment that is carried by a river as the flow leaves its mouth and enters slower-moving or stagnant water. This occurs where a river enters an ocean, sea, etc:

- **The Ganga-Brahmaputra delta:** the largest delta in the world. A Large part of the coastal delta is covered by forests called **Sunderbans**, the largest mangrove swamp in the world gets its name from the Sundari tree which grows well in marshland. It is home to the Royal Tiger and salt water crocodiles.

Mind Map





Bhabar Soil Region

- The Bhabar soil region is a narrow, porous, northern most stretch of Indo-Gangetic plain.
- It is about 8-16 km wide along the foothills of the Shiwaliks.
- Bhabar show a remarkable continuity from the **Indus to the Tista**.
- **Porosity** of bhabar is **unique feature**, due to deposition of huge number of pebbles and rocks.
- The **streams disappear** once they reach the bhabar region because of this porosity.
- The area is not suitable for agriculture and only big trees with large roots thrive in this belt.

Terai Region

- Terai region is an ill-drained, **damp** (marshy) and thickly forested narrow tract.
- It is located to the south of Bhabar running parallel to it.
- Terai region is about 15-30 km wide.
- The underground streams of the Bhabar belt re-emerge in the Terai Region.
- Terai soils are **rich in nitrogen** and organic matter.
- This soil is deficient in phosphate.
- Terai region is covered with thickly forest, provides shelter to a **variety of wild life**.
- Terai region is wider in the eastern part because of higher amount of rainfall.
- Most of the Terai land, in Punjab, Uttar Pradesh and Uttarakhand, has been turned into agricultural land.
- Terai region land gives good crops of sugarcane, rice and wheat.

Bhangar Region

- The Bhangar is the **older alluvium** along the river beds of Indo-Gangetic plain.
- It forms terraces higher than the flood plain.
- Bhangar contains concretions and nodules of impure calcium carbonate known as '**Kankar**'.
- It contains fossils of animals like rhinoceros, hippopotamus, elephants, etc.
- The **Barind plains** in the delta region of Bengal is a part of Bhangar region.
- The Bhur formations in the middle Ganga and Yamuna doab are regional variations of Bhangar.

Khadar Region

- The Khadar is composed of **newer alluvium** and forms the flood plains along the river banks.
- A new layer of alluvium is deposited by river flood almost every year.
- The Khadar is the **most fertile soils** of Indo-Gangetic plain.
- In Punjab, the Khadar rich flood plains are locally known as Betlands or Bets.

- Khadar rich flood plains known as 'Betlands' or '**Bets**'.
- The rivers in Punjab-Haryana plains have broad flood plains of Khadar, locally known as **Dhayas**.

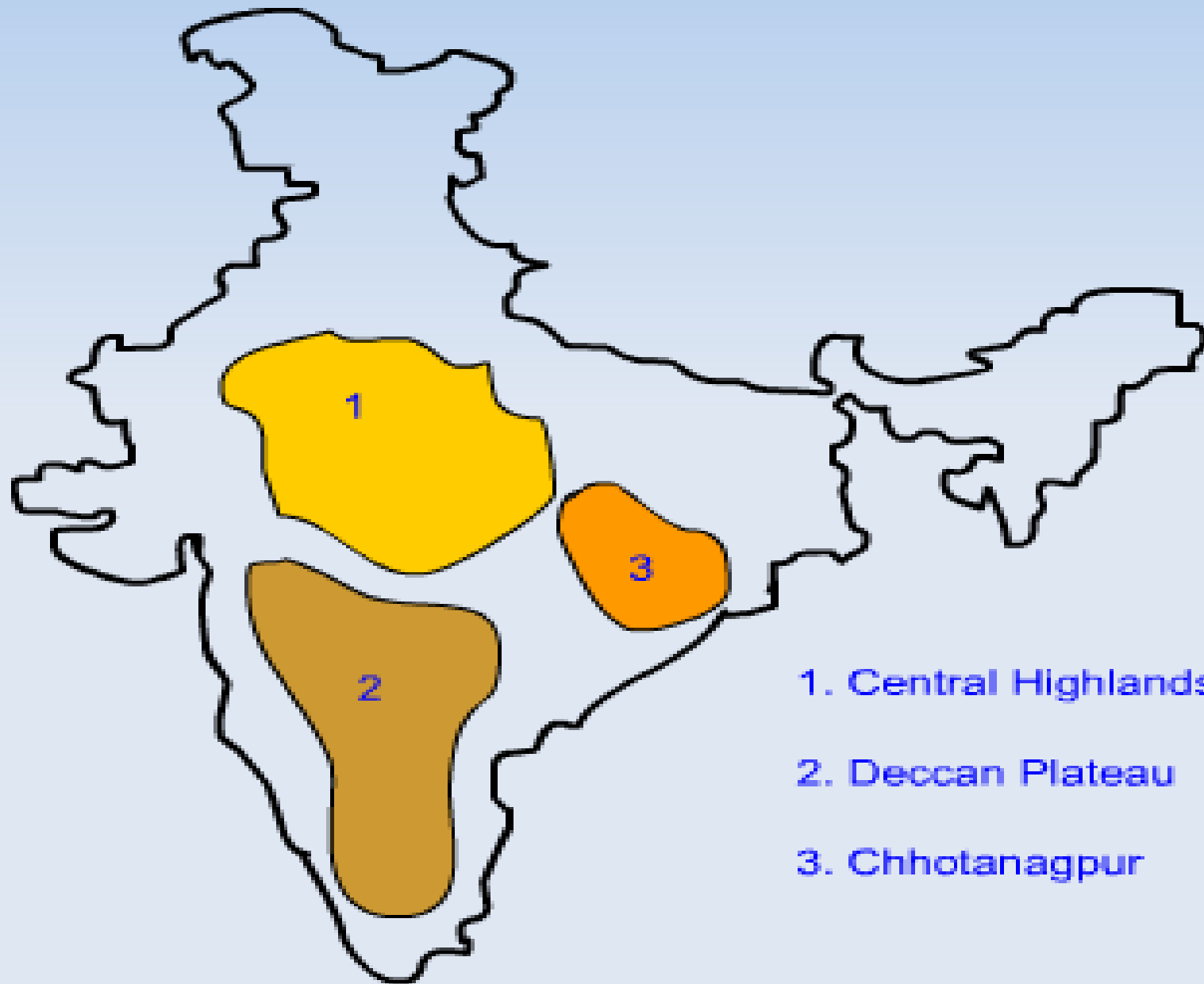
THE PENINSULAR PLATEAU

Physical divisions of india

Peninsular plateau

- **The central highlands**
- **Deccan plateau**
- **The northeastern plateau**

Reference: NCERT 6th, 9th and 11th class



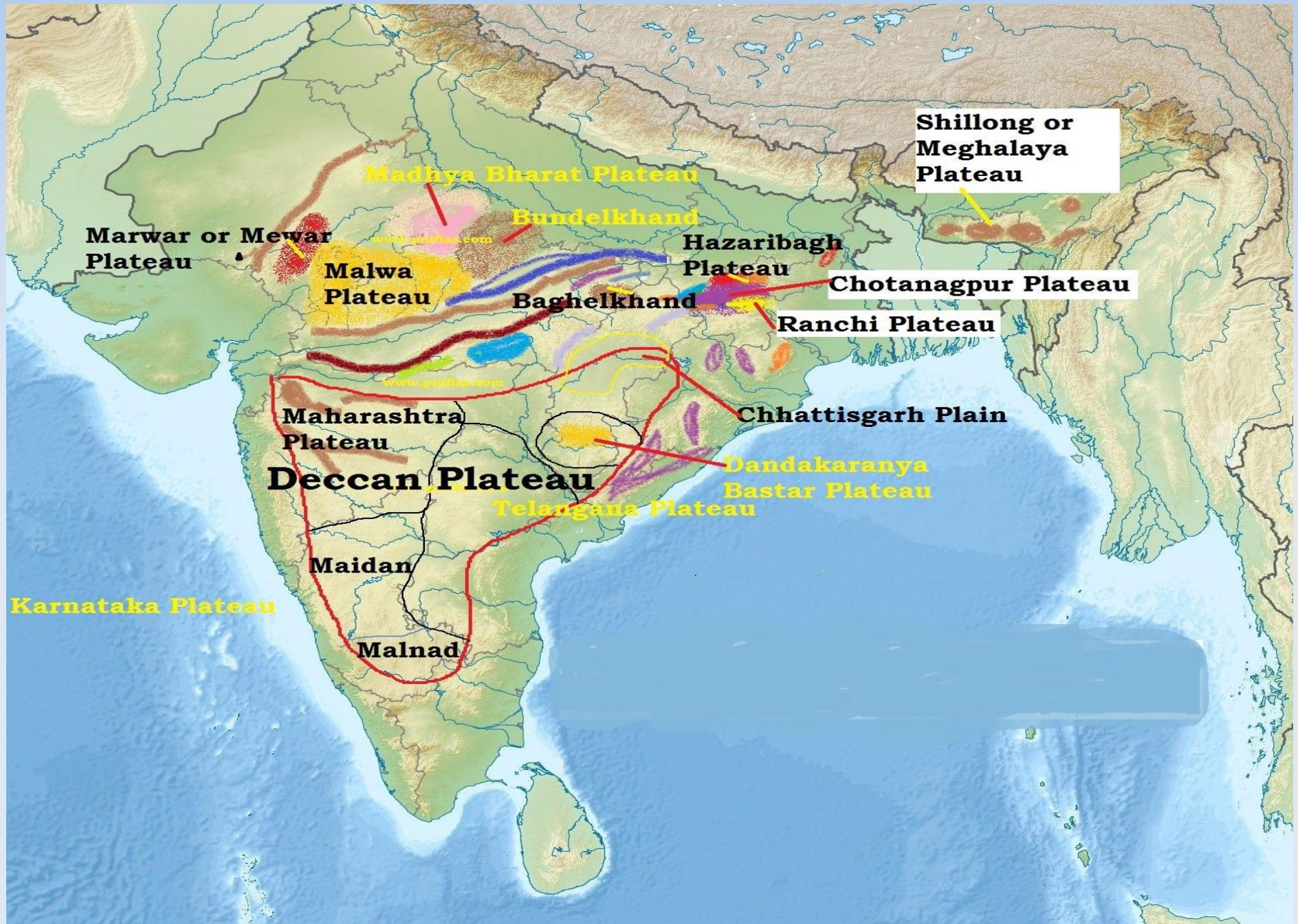
1. Central Highlands

2. Deccan Plateau

3. Chhotanagpur

➤ Minor Plateaus in the Peninsular Plateau

- ❖ Marwar Plateau or Mewar Plateau
- ❖ Central Highland
- ❖ Bundelkhand Upland
- ❖ Malwa Plateau
- ❖ Baghelkhand
- ❖ Chotanagpur Plateau
- ❖ Meghalaya Plateau



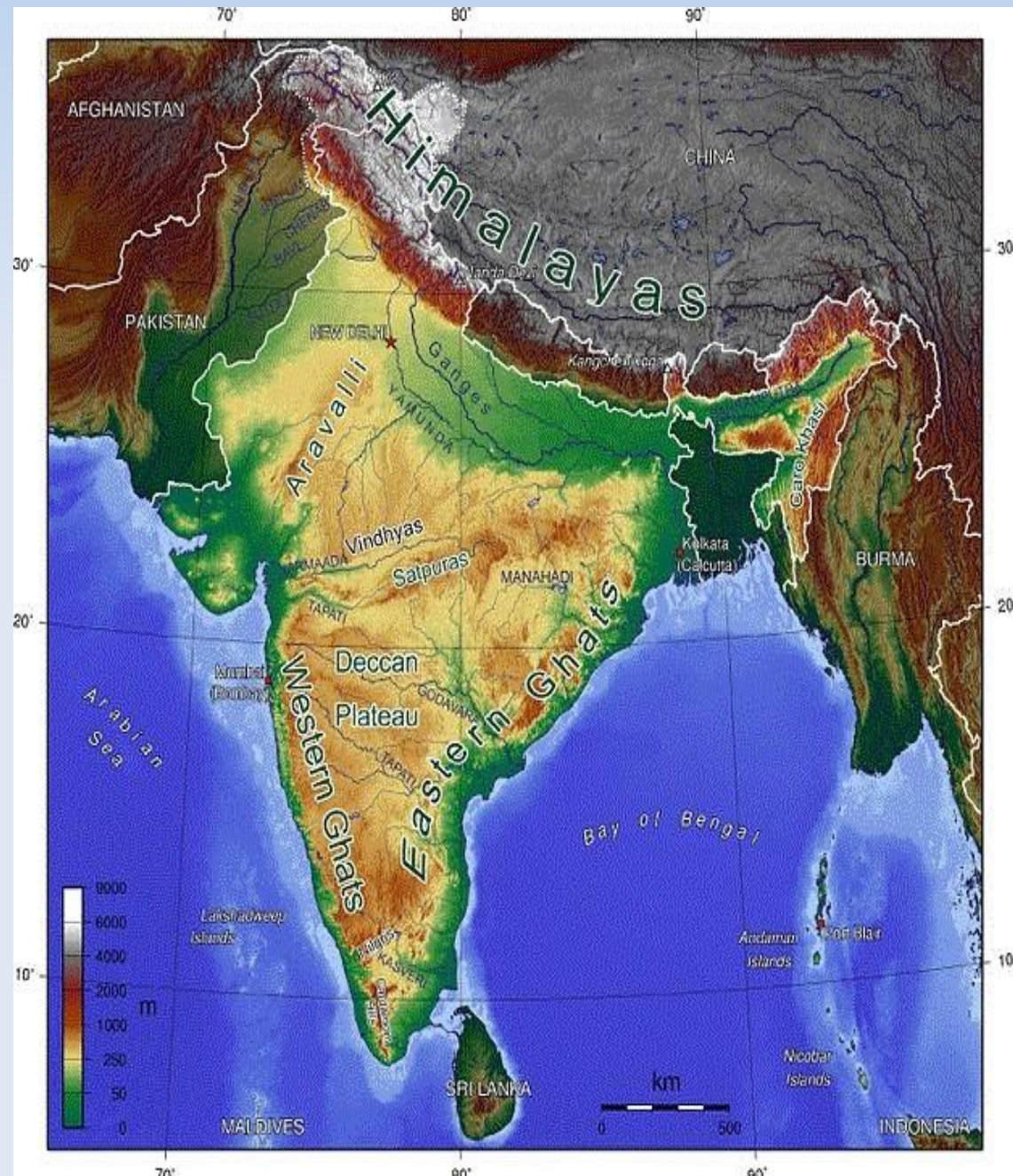
What is Peninsula?

A body or piece of land enclosed on three sides by water, jutting out from a larger body of land.



The Peninsular Plateau

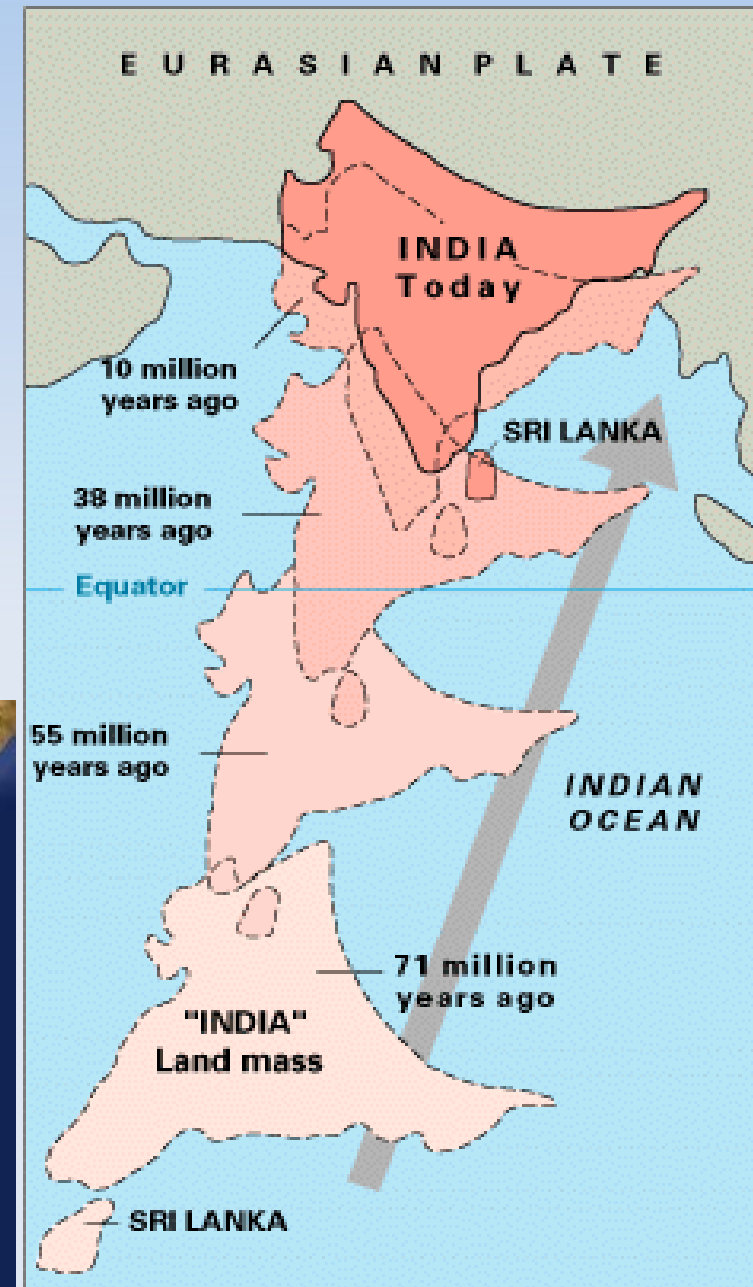
- ? **Location :--**
The Peninsular Plateau lies to the south of the Northern Plains of the India.



The Peninsular Plateau

The Peninsular Plateau of India is roughly triangular in shape with its base parallel to the Ganga Valley and its apex pointing towards the southern tips of the country. It is hard old mass of igneous and metamorphic rocks being part of the tectonic plate called the Gondwanaland. This is bordered by the Western Ghats in the west, Eastern Ghats in the east and the Satpura, Maikal range and Mahadeo hills in the north

It was formed due to the breaking and drifting of **the Gondwana land**. Hence, it is a part of the **oldest landmass**.



The Peninsular Plateau

- It is a tableland made up of the old crystalline, **igneous** and **metamorphic rocks**.
- The plateau has broad and shallow valleys and rounded hills.



Types of rocks

Igneous rocks are formed from melted **rock** deep inside the Earth. Eg: Basalt granite etc

Sedimentary rocks are formed from layers of sand, silt, dead plants, and animal skeletons eg: sandstone, chalk

·
Metamorphic rocks formed from other **rocks** that are changed by heat and pressure underground eg: slate, marble

The Peninsular Plateau

? The Peninsular Plateau is flanked by Aravallis on the northwest, the Western Ghats in the west and the dissected Eastern Ghats in the east.

? This plateau ranges in an elevation from 100 metres in the northern side to 1000 metres to the south.



The Peninsular Plateau

- Many rift valleys such as Narmada, Tapi, Mahanadi, Godawari, and Damodar have been formed due to faulting and vertical movements.



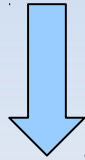
The Peninsular Plateau

- ❑ The Deccan Trap is famous for black soils.
- ❑ The Peninsular Plateau is rich in valuable minerals such as manganese, iron, mica, coal, bauxite, gold and copper.



Divisions of the Peninsular Plateau

A) The Central Highlands



1. The Malwa Plateau
2. The Bundelkhand
3. The Baghelkhand
4. The Chotanagpur Plateau

B) The Deccan Plateau



1. The Deccan Trap
2. The Western Ghats
3. The Eastern Ghats
4. The North – East extension

THE CENTRAL HIGHLANDS



- The northern part of the Peninsula, north of the Vindhyas, is known as the Central Highlands.



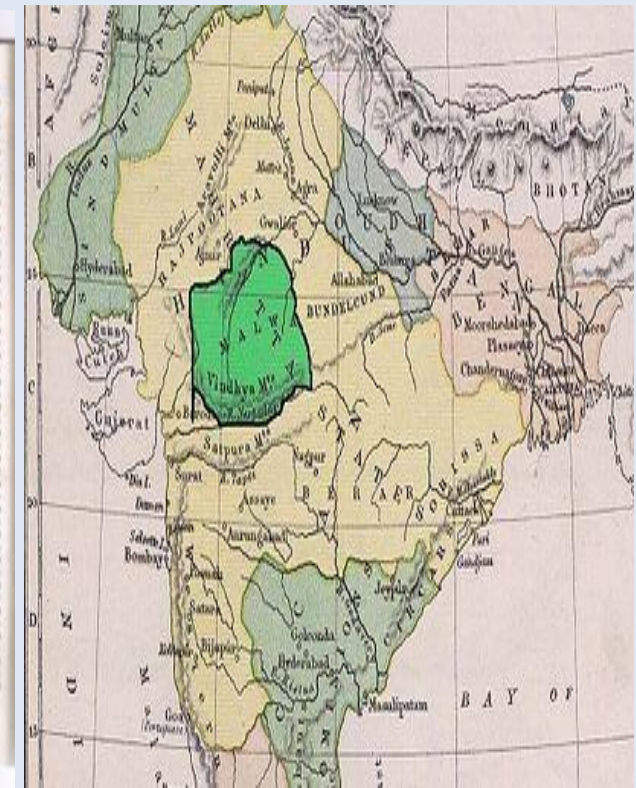
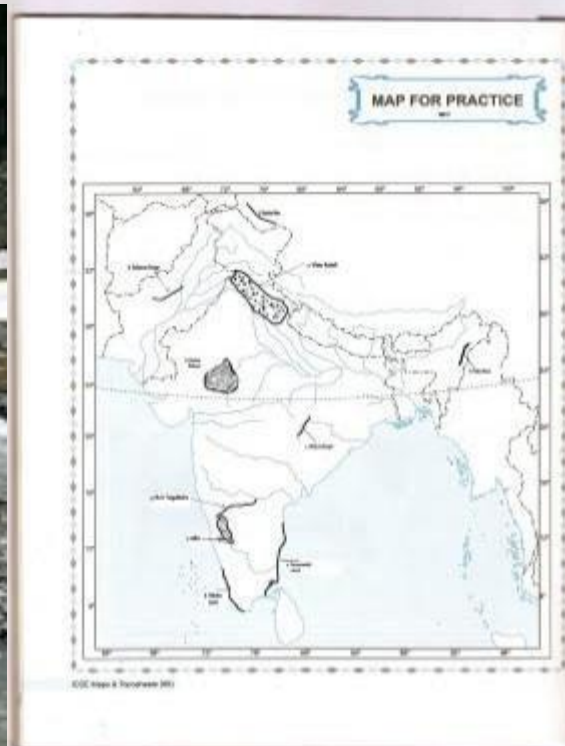
- The Central Highlands are bounded by Aravali range on the northwest, Ganga plains on the north and Vindhya range on the south.
- The Central Highlands are wider in the west but narrower in the east.

The Central Highlands

- The flow of the rivers draining this region, namely the Chambal, the Sind, the Betwa and the Ken is from southwest to northeast, thus indicating the slope.

1.The Malwa Plateau

The Malwa Plateau forms western part of the Central Highlands and comprises the entire area between the Aravali Range in the northwest and the Vindhya Range in the south.



The Malwa Plateau

- An area – 81,767 sq.km.
- An average height is 500 metres.
- The landscape slope downwards towards the north and the northeast.
- The Chambal River and its tributaries drain most of the Malwa Plateau.
- Important Cities – Indore, Bhopal, Ujjain, Sagar, Ratlam, Devas etc.

2.The Bundelkhand

- ❑ Located to the east of the Malwa Plateau.
- ❑ The Bundelkhand is spread over southern Uttar Pradesh and northern Madhya Pradesh.
- ❑ Total geographical area is around 70,000 sq.km.



The Bundelkhand

- ❑ The northern part of the Bundelkhand, almost entirely in UP, is a flat plain.
- ❑ The centre and southern part of the Bundelkhand is covered by Uplands and hills.
- ❑ All major rivers (Ken & Betwa) of the region flow from south to north, emptying into the Yamuna.
- ❑ Important Cities – Kanpur, Allahabad, Jhansi, Sagar etc.

3.The Baghelkhand

- ❑ Located to the east of the Bundelkhand Plateau.
- ❑ The Baghelkhand is a region of Central India, in northeastern Madhya Pradesh and adjacent southern part of Uttar Pradesh.
- ❑ The total area is 14,323 sq. m.



The Baghelkhand

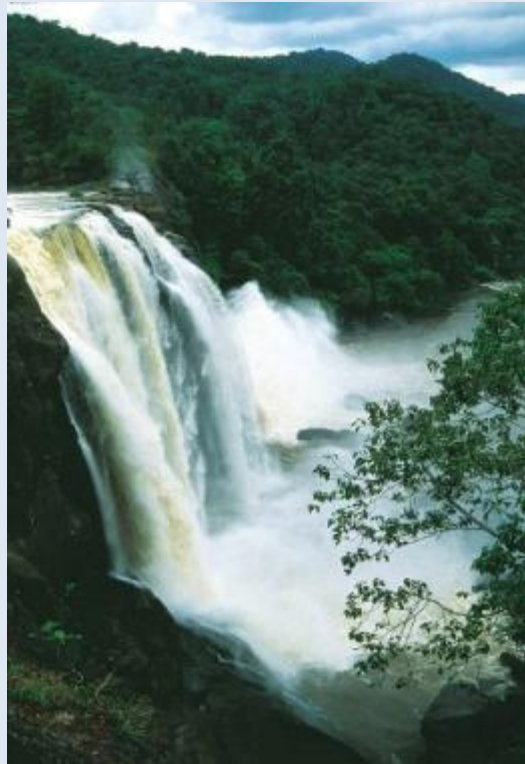
- The river Sone, the Maikal Ranges and the Chhattisgarh region surround the Baghelkhand Plateau, located in eastern Madhya Pradesh. Its height ranges from 550-1033m.
- Stones of the Jurassic Age (about 80 million years ago) can be found in this plateau.
- Most of the coal deposits of Madhya Pradesh are found in this area.

The Baghelkhand

- It houses tribals, dense forests and many wild animals.
- The Kanha National Park is located in this area.
- Important Cities – Shahdol, Umariya Ambikapur etc.

4.The Chotanagpur Plateau

- The Chota Nagpur Plateau is a plateau in eastern India, which covers much of Jharkhand state as well as adjacent parts of Orissa, West Bengal, Bihar and Chhattisgarh.



The Chotanagpur Plateau

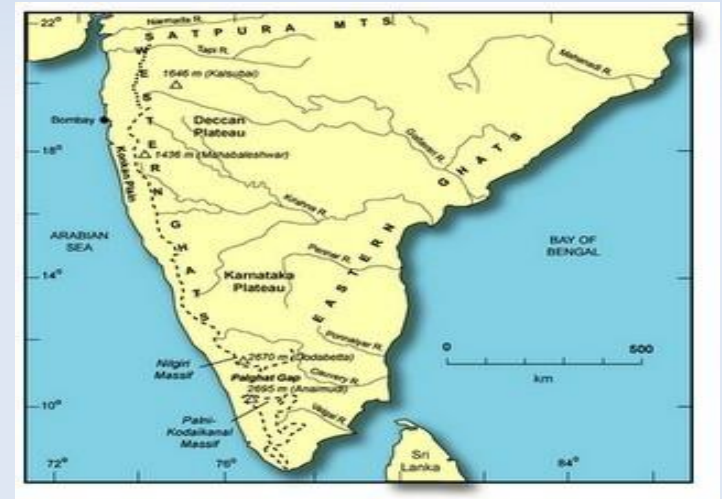
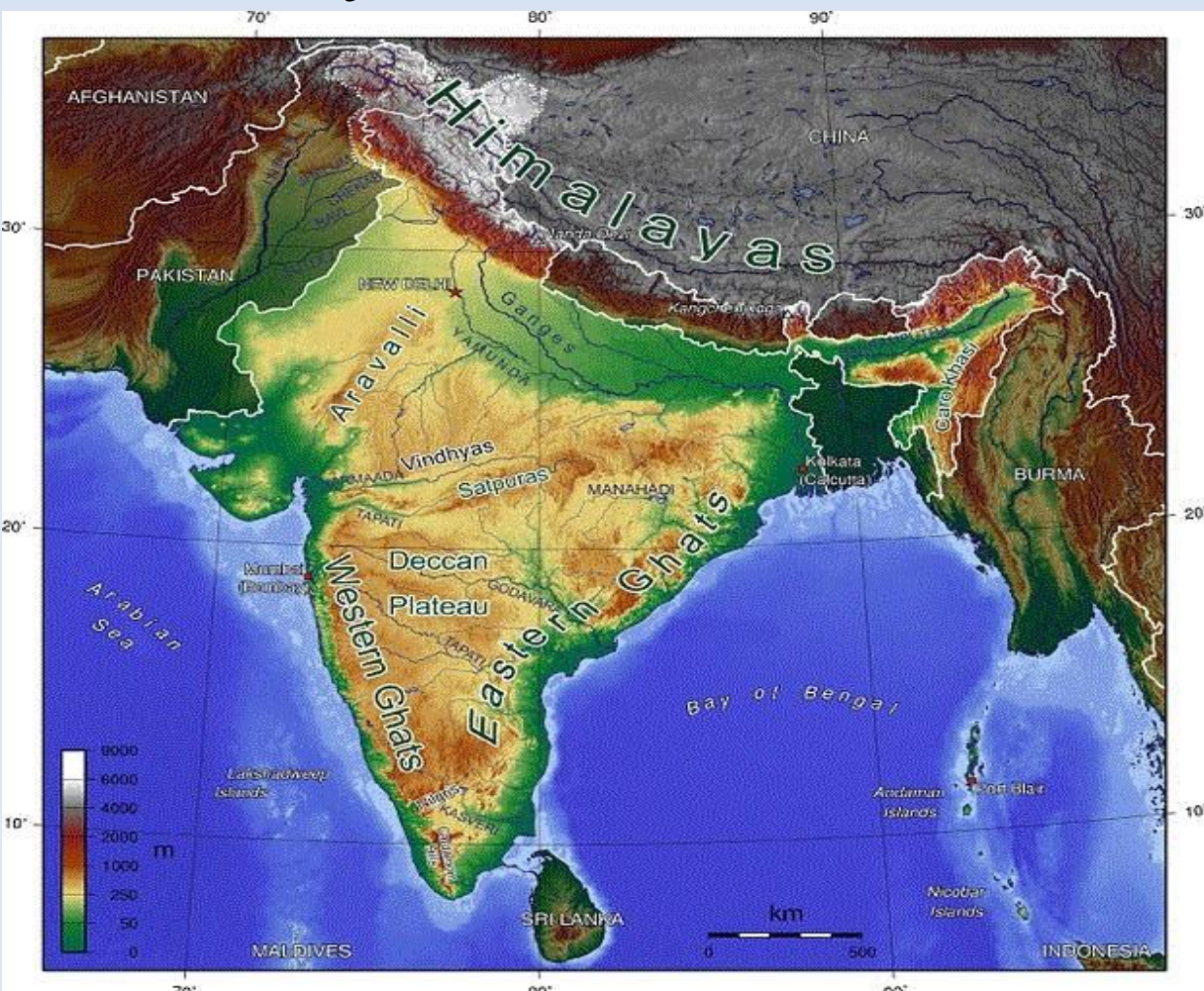
- The Indo – Gangetic plain lies to the north and east of the plateau, and the basin of the Mahanadi River lies to the south.
- The total area is approximately 65,000 square kilometres.
- Its height ranges from 1100 m – 300 m.
- Important rivers – Damodar, Son, Bokaro, Subarnarekha, Kanchi, Gaya, Koel, Karo, Raru, Lilajan, Sankh etc.

The Chotanagpur Plateau

- Chota Nagpur Plateau consists of three steps -Pats region,Ranchi and Hazaribagh plateau & Manbhum and Singhbhum region.
- Chota Nagpur plateau is a store house of minerals like mica, bauxite,copper, limestone, iron ore, and coal.
- Important Cities -- Jharia, Raniganj, Bokaro, Ramgarh, Karanpura Jamshedpur, Asansol, Durhapur, Bardhaman, Ranchi etc

B) The Deccan Plateau

- The southern part of the Peninsula, south of the Vindhyas, is known as the Deccan Plateau.



Boundaries of the Deccan Plateau

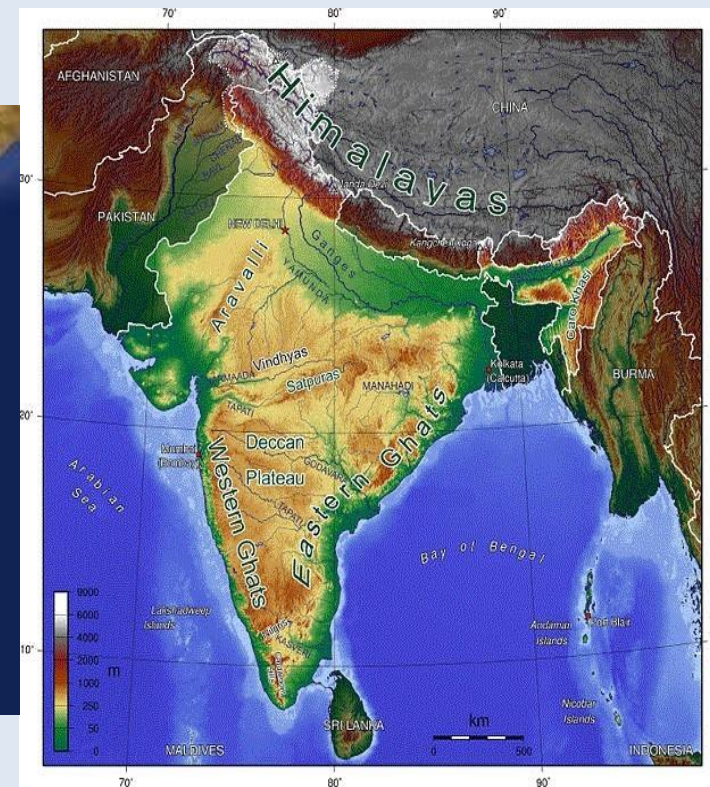
- **The Deccan Plateau is bound by –**
- The Western Ghats on the west.
 - The Eastern Ghats on the east.
 - The Satpura range & the Vindhya range on the north.





The Deccan Plateau

❑ The Deccan Plateau is a large triangular plateau in India, covering up the majority of the southern part of the country. It rises a hundred metres high in the north, rising further to more than a kilometre high in the south.



The Deccan Plateau

- The Deccan Plateau is made up of basalt and granite rocks having a region of highlands with typically vast stretches of flat areas on top like a table known as **Table Top**.



The Deccan Plateau

- Most Deccan plateau rivers flow from west to east emptying their water into the Bay of Bengal indicating the slope of the region.
- **The Godavari & its tributaries**
the northern portion of the plateau;
The Krishna & its Tributaries;
the central portion of the plateau.



The Deccan Plateau

- The climate of the region varies from semi – arid climate in the north to tropical in most of the region with distinct wet and dry seasons. Rain falls during the monsoon season from about June to October. March to June can be very dry and hot with temperatures exceeding 40°C regularly.



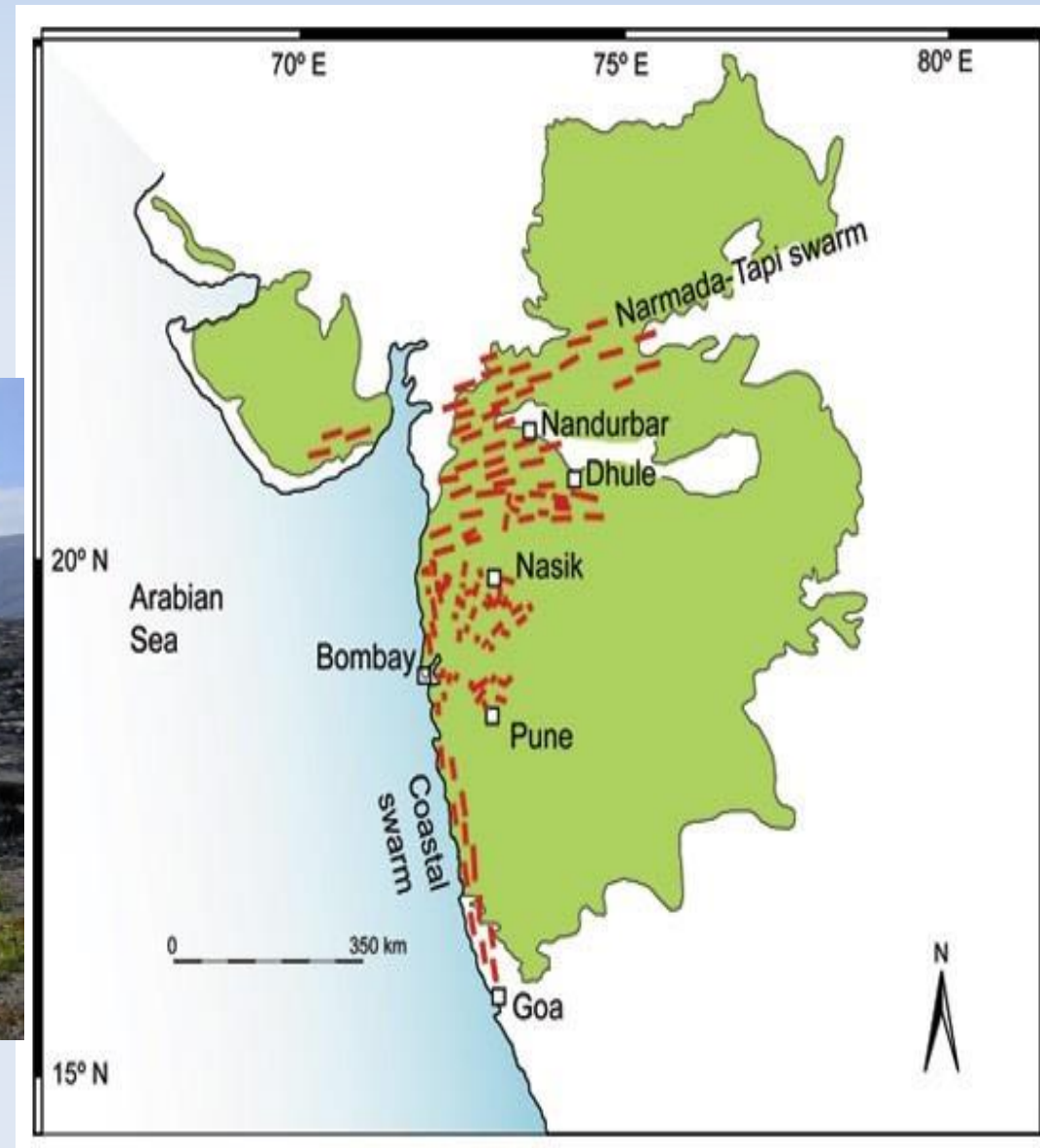
The Deccan Plateau

- ❑ The Deccan is rich in minerals. Primary mineral ores found in this region are mica, iron ore, gold and other metals.
- ❑ All river basins are good for agriculture. The chief crop is cotton, however, sugarcane, rice, and other crops are also common.
- ❑ Important Cities – Hyderabad, Bangalore, Pune, Nagpur, Aurangabad, Mysore, Kolhapur, Satara, Hampi, Bijapur



1.The Deccan Trap

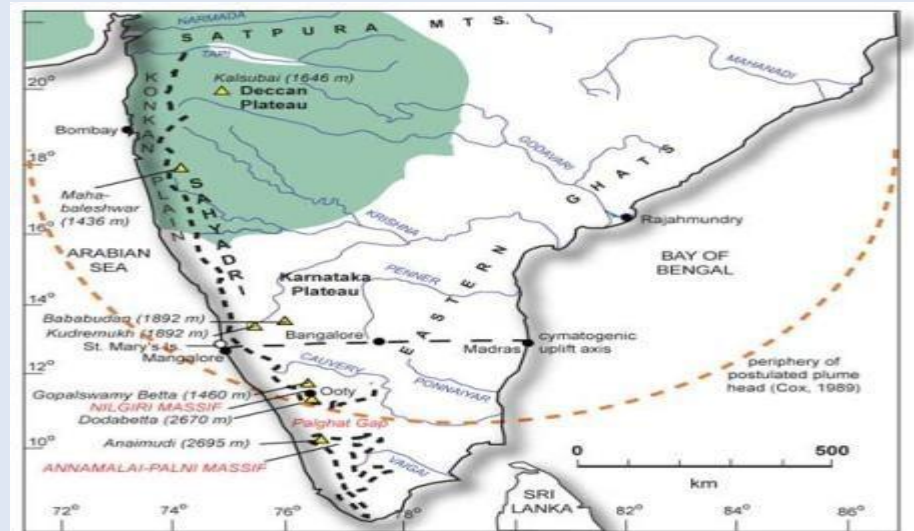
Northwestern part of the Deccan Plateau which is made up of lava flows.



The Deccan Trap

The Deccan Traps are a large igneous province located on the Deccan Plateau of west-central India. It is one of the largest volcanic features on the Earth. They consist of multiple layers of solidified flood basalt that together are more than 2,000 m thick and cover an area of 500,000 sq. km.

And



The Deccan Trap

- ❑ The term 'trap', used in geology for such rock formations, is derived from the Dutch word for stairs referring to the step-like hills forming the landscape of the region.
- ❑ Maharashtra, parts of Gujarat & Madhya Pradesh.
- ❑ Black soils.



4.The North – East Extension of Plateau

- ❓ Karbi-Meghalya plateau is in fact an extension of the main Indian Peninsular Plateau and are originally two different plateaux – **Karbi Anglong Plateau** and **Meghalaya Plateau**.



The North – East Extension of Plateau

- It is believed that due to the force exerted by the north-eastwardly movement of the Indian plate at the time of the Himalayan origin, a huge fault was created between the Rajmahal Hills and the Karbi-Meghalaya plateau. Later, this depression was filled up by the depositional activity of numerous rivers.

The North – East Extension of Plateau

- Today the Maghalaya and Karbi Anglong plateau remains detached from the main Peninsular block. This area receives maximum rainfall from the South-West monsoon.



Knowledge check

Consider the following statements

Peninsular plateau is:

- i_)largest physical division of india that extends upto meghalaya plateau
- ii_)oldest physical division of india
- iii_)newest physical division of india
- iv_)rich in minerals

A_) i,ii,& iii

B_) i,ii,& iv

C_) i ,ii, iii & iv

D_) ii,iii, &iv

PENINSULAR PLATEAU

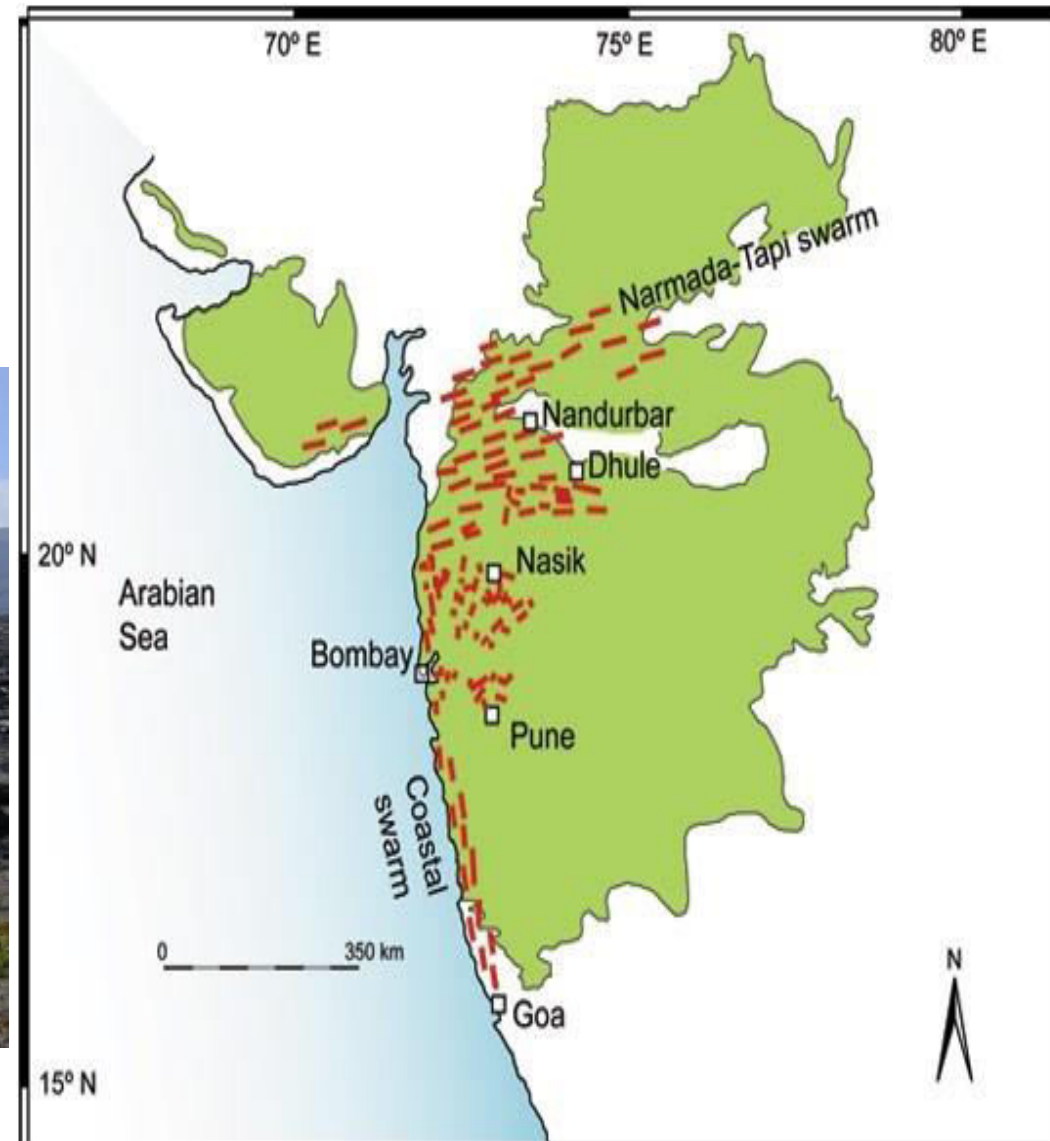
CONTINUES...

- ✓ DECCAN TRAP
- ✓ WESTERN GHATS
- ✓ EASTERN GHATS

- DECCAN TRAPS

- The Deccan Traps are a large igneous province located on the Deccan Plateau of west-central India ($17\text{--}24^\circ\text{N}$, $73\text{--}74^\circ\text{E}$).
- They are one of the largest volcanic features on Earth.
- They consist of multiple layers of solidified flood basalt that together are more than 2,000 m (6,600 ft) thick,.
- This is of volcanic origin, hence the rocks are igneous. These rocks have denuded over time and are responsible for the formation of black soil

Northwestern part of the Deccan Plateau which is made up of lava flows.



The Deccan Trap

- The term 'trap', used in geology for such rock formations, is derived from the Dutch word for stairs referring to the step-like hills forming the landscape of the region.
- Maharashtra, parts of Gujarat & Madhya Pradesh.
- Black soils.

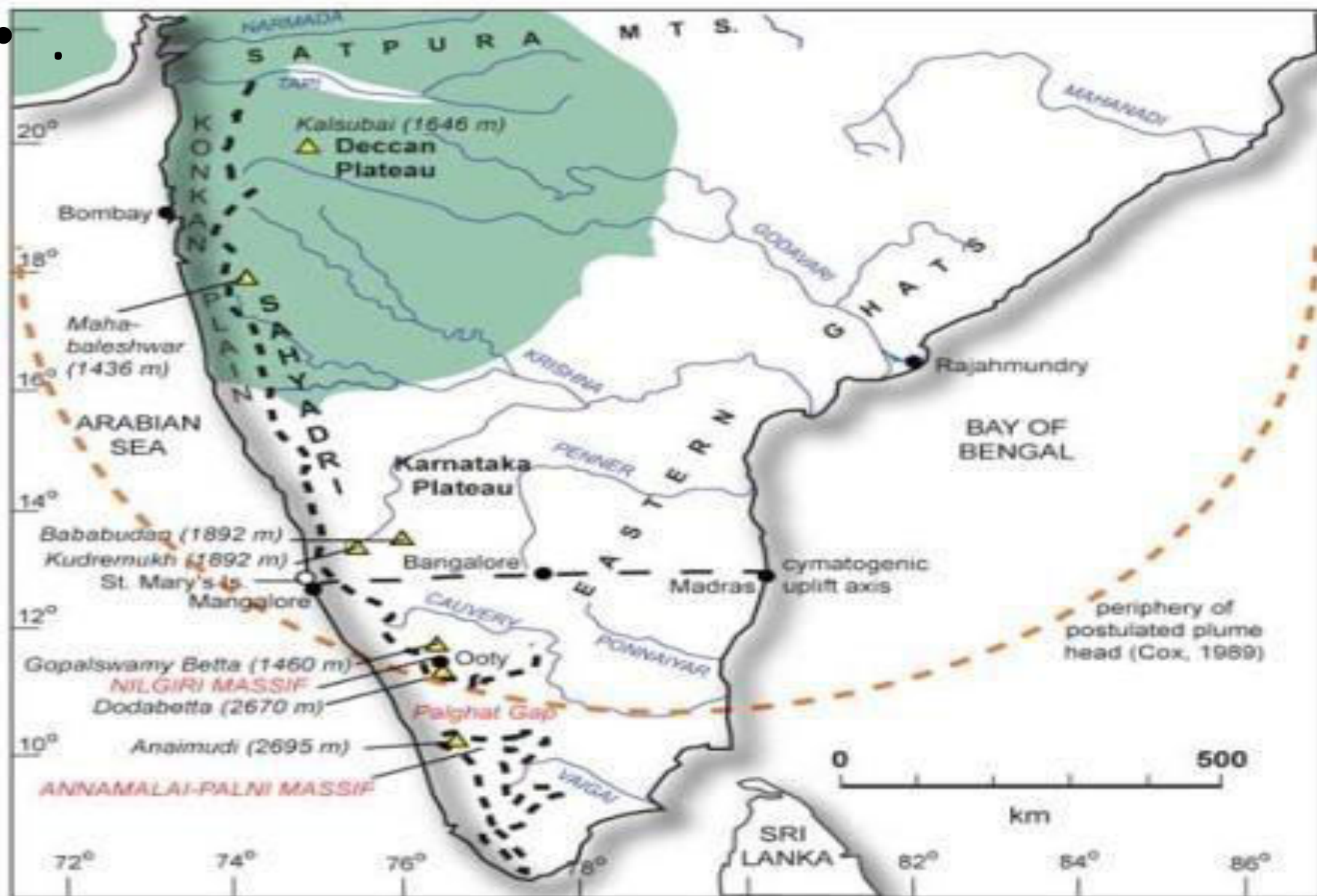




2. The Western Ghats

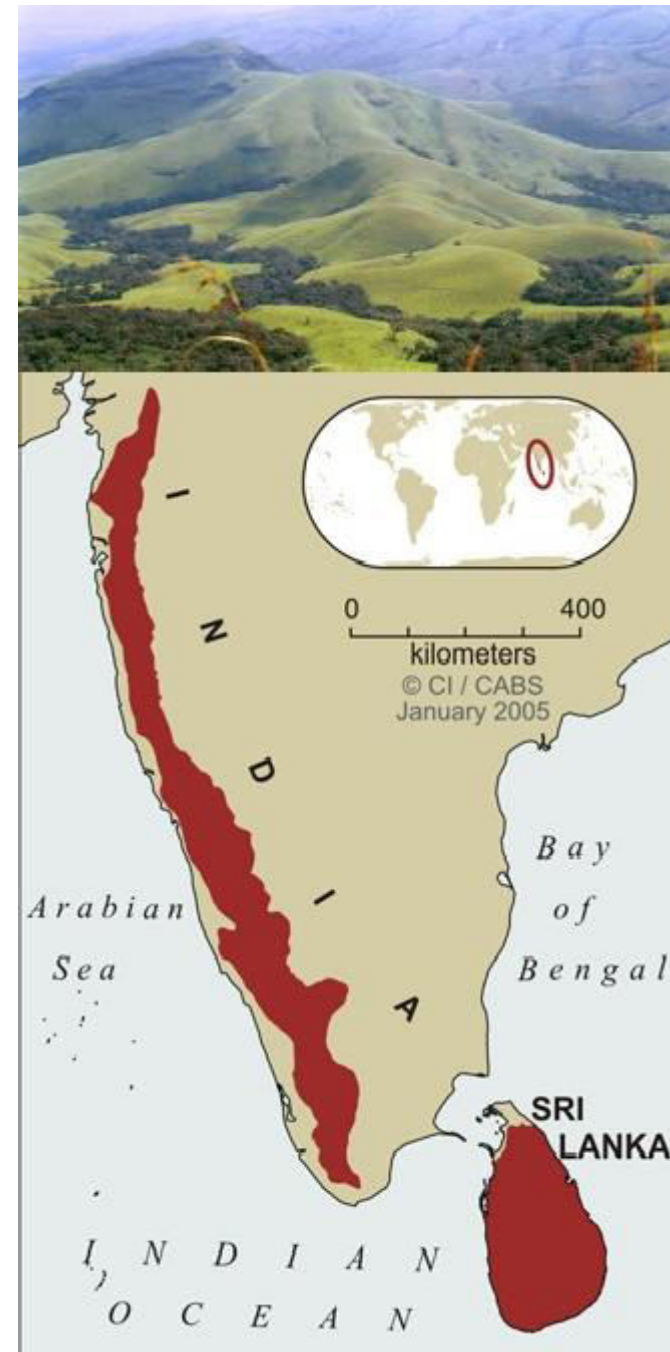
- The Western Ghats are the western edge of the Deccan Plateau.
- They lie parallel to the western coast.





The Western Ghats

- The Western Ghat starts near the border of Gujarat and Maharashtra, south of the River Tapti, and runs through the states of Maharashtra, Goa, Karnataka, Tamil Nadu and Kerala ending at Kanyakumari, at the southern tip of India.
- Toatal length – approximately 1600 km.
- An average elevation – 1200 metres.



The Western Ghats

The Western Ghats are not true mountains, but are the faulted edge of the Deccan Plateau. They are believed to have been formed during the break-up of the super continent of Gondwana some 150 million years ago.

The Western Ghats

- They are continuous and higher than the Eastern Ghats.
- The height of the Western Ghats increases from north to south.
- Ana Mudi 2,695m (8,842 ft)



The Western Ghats

- • These hills cover 1,60,000 km² and form the catchment area for a complex of river systems that drain almost 40% of India. The average elevation is around 1,200 metres (3,900 ft). The area is one of the world's ten "Hottest biodiversity hotspots" and has over 5000 species of flowering plants, 139 mammal species, 508 bird species and 179 amphibian species. At least 325 globally threatened species occur in the Western Ghats.
- It is a UNESCO World Heritage Site and is one of the eight hot-spots of biological diversity in the world

The Western Ghats

The Western Ghats are known by different local names.

- Maharashtra, Goa & Karnataka – Sahyadri
- Karnataka near Mysore – Bili giri rangana Betta
- Tamil Nadu – Nilagiri malai
- Tamil Nadu & Kerala – Anaimalai Hills and Cardamom Hills

- **WESTERN GHATS**

- The Western Ghats are also known as *Sahyadri* in certain parts of India.
- They run parallel to the western coast of India.
- Since they are continuous without any major breaks, hence it is very difficult to pass through them. Although this difficulty has been reduced in the present times due to the advanced transport technology, however in the olden days, it was definitely a huge task to pass the ghats and get onto the opposite side.

- However, the western ghats do have passes such as the *Bhor ghat*, *Pal ghat*, and *Thal ghat* which makes it possible to travel through the western ghats despite the fact that they are continuous.
- Although most of the peninsular rivers drain into the Bay of Bengal, their origin point is the western ghats.

- Important rivers such as the *Tungabhadra*, the *Krishna*, the *Godavari* have their origin point in the western ghats.
- It must be noted that the western ghats of India play a very important role in the distribution of the monsoon rainfall on the western border of India.
- It causes the orographic rainfall due to which the windward side of the mountains receives a lot of rainfall, however, the leeward side remains dry.
- The western ghats consist of evergreen forests too, however, the main crop grown there is the Coffee.

- Anaimudi is the highest peak of the peninsular plateau and is located on the Anaimalai Hills of the Western Ghats.
- The highest peak in the Western Ghats is Anaimudi and its elevation is 2695 meters or 8842 ft. It is known as Everest of South India. The name Anaimudi translates as Elephant's head. It is located at the border of Ernakulam and Idukki District of Kerala

The Eastern Ghats

- The Eastern Ghats run from West Bengal state in the north, through Orissa and Andhra Pradesh to Tamil Nadu in the south.
- An average elevation – 600 metres.
- The Eastern Ghats are discontinuous and irregular and dissected by rivers (Godavari, Mahanadi, Krishna, Kaveri) draining into the Bay of Bengal.

□



3.The Eastern Ghats

- The Eastern Ghats are the eastern edge of the Deccan Plateau.
- They lie parallel to the eastern coast.



- **Eastern Ghats**
- The eastern ghats run parallel to the eastern coastal plains of India.
- Unlike the western ghats, they are discontinuous in nature and is dissected by the rivers that drain into the Bay of Bengal. As discussed above, most of these rivers have their origin in the western ghats.
- It must be noted that the eastern ghats are lower in elevation than the western ghats.
- The highest peak of Eastern Ghats is the Jindhagada peak (1690 meters).mahedragiri. It is also known as Arma Konda or Sitamma Konda.

- The difference in the elevation levels of the highest peaks in both the ghats can also be compared. Jindaghara of eastern ghats is of 1690 mts. This gives us a fair idea of the differences in elevation levels of the hills in both the ghats.
- The main crop produced in the eastern ghats is Rice, which is also the staple food of the people living in the region

The Eastern Ghats

- The Eastern Ghats are older than the Western Ghats.
- Palkonda Hills, Javadi Hills, Shevaroy Hills are located to the southeast of the Eastern Ghats.

Knowledge check

- The highest peak in the western Ghats is
 - (a) Anai Mudi
 - (b) Doda Betta
 - (c) Ooty
 - (d) Mahendragiri

MCQs(physical divisions of india part i)

- TOPICS: HIMALAYAS, NORHERN PLAINS OF INDIA AND PENINSULAR PLATEAU
- Covers revision of last five lectures
- Source: NCERT 6th 9th and 11th + lecture notes

Which of the following is/are consists of present day “Gondwana land”?

1. Africa
2. Latin America
3. Arabian Peninsula
4. Gibraltar
5. Indian Sub-continent

Select the correct answer using the codes given below:

- **1, 2, 4 and 5 only**
- **1, 2, 3 and 5 only**
- 1, 2 and 4 only
- 1, 2, 3, 4 and 5

Incorrect

Gondwanaland or “Gondwana” is the name for the southern half of the Pangaeen supercontinent that existed some 300 million years ago.

- Gondwanaland is composed of the major continental blocks of South America, Africa, Arabia, Madagascar, Sri Lanka, India, Antarctica, and Australia.
- The name “Gondwana” is derived from a tribe in India (Gonds) and “wana” meaning “land of.”

Gondwanaland is superficially divided into a western half (Africa and South America) and an eastern half (Sri Lanka, Madagascar, Antarctica, and Australia).

Source: NCERT XI India Physical Environment

Q1. Consider the following statements

1. Chotanagpur plateau extends into North eastern parts of India.
2. Karbi Anglong and the Meghalaya Plateau in the northeast are extensions of Peninsular block.

Select the correct answer from the following codes

- a. Only 1
- b. Only 2
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer: b

Explanation: The Karbi Anglong and the Meghalaya Plateau in the northeast and Rajasthan in the west are also extensions of this block. The north eastern parts are separated by the Malda fault in West Bengal from the Chotanagpur plateau.

- **The two most important rivers which discharge their water into Arabian Sea.**
 - a. Luni and Chambal
 - b. Ghagra and Kosi
 - c. Godavari and Krishna
 - d. Narmada and Tapi

ANSWER: d. Narmada and Tapi

- Consider the following statements regarding “Satpura range”:
- 1. Satpura range stretches through Maharashtra and Madhya Pradesh states only.
- 2. Range forms the watershed between the Narmada and Tapti rivers.
- Which of the statements given above is/are correct?
- 1 only
- **2 only**
- **Both 1 and 2**
- Neither 1 nor 2
- **Incorrect**
Satpura Range, range of hills, part of the Deccan plateau, western India.
- · The hills stretch for some 560 miles (900 km) across the widest part of peninsular India, through Maharashtra, Madhya Pradesh, Gujarat and Chhattisgarh states.
- · The range, the name of which means “Seven Folds,” forms the watershed between the Narmada (north) and Tapti (south) rivers.
- Source: NCERT XI India Physical Environment

- **Q3. Which of the following is/are examples of block faulting in peninsular block?**
 1. Rift valley of Narmada
 2. Rift valley of Tapi
 3. Rift valley of Mahanadi

Select the correct answer from the following codes

- a. Only 1
- b. Only 1 and 2
- c. Only 2 and 3
- d. 1,2 and 3

Answer: d

Explanation: As a part of the Indo-Australian Plate, peninsular block has been subjected to various vertical movements and block faulting. The rift valleys of the Narmada, the Tapi and the Mahanadi and the Satpura block mountains are some examples of it.

- **Which of the following is/are features of Himalayas?**

1. Weak and flexible geological structure
2. Interplay of exogenic and endogenic forces
3. Tectonic in origin

Select the correct answer from the following codes

- a. Only 1
- b. Only 1 and 2
- c. Only 2 and 3
- d. 1,2 and 3

Answer: d

Explanation: The Himalayas along with other Peninsular mountains are young, weak and flexible in their geological structure unlike the rigid and stable Peninsular Block. Consequently, they are still subjected to the interplay of exogenic and endogenic forces, resulting in the development of faults, folds and thrust plains. These mountains are tectonic in origin, dissected by fast-flowing rivers which are in their youthful stage.

- **Which of the following is/are physical features of North part of India?**
 1. Rugged topography
 2. Deep Gorges
 3. Varied peaks

Select the correct answer from the following codes

- a. Only 1
- b. Only 1 and 2
- c. Only 2 and 3
- d. 1,2 and 3

Answer: d

Explanation: The land of India is characterised by great diversity in its physical features. The north has a vast expanse of rugged topography consisting of a series of mountain ranges with varied peaks, beautiful valleys and deep gorges.

- **Arrange the following Himalayan sub-divisions from west to east**

I. Kashmir Himalayas
II. Himachal Himalayas
III. Darjeeling Himalayas
IV. Arunachal Himalayas

- a. I,II,III,IV
b. IV,III,II,I
c. I,II,IV,III
d. II,III,IV,I

ANSWER: a. I,II,III,IV

- **Consider the following statements regarding the Majuli Island:**
- 1. It is largest river island in world and first riverine island district of the country.
- 2. It is inhabited by Mising tribes, Deori and Sonowal Kachri tribes.
- Which of the statements given above is/are correct?
- 1 only
- 2 only
- **Both 1 and 2**
- Neither 1 nor 2

The World Records has declared Majuli in Assam as the largest river island in the world. It has toppled Marajo in Brazil to clinch the record. The beautiful river island is situated on the Brahmaputra River.

- 2. The island is inhabited by Mising tribes, Deori and Sonowal Kachri tribes.
- 3. The people of the island speak Mising, Assamese and Deori language.
- 4. It covers an area of around 880 sq km.
- 5. Due to the frequent flooding of the Brahmaputra River, Majuli suffers heavy erosion. In the last 30-40 years it is estimated that it has lost about one third of its area.

- **6. Match the following passes and mountain ranges.**

I. Zoji La ----- A.Pir Panjal
II. Photu la ----- B. Ladhakh
III. Banihal ----- C.Great Himalayas
IV. Khardung la ----- D.Zanskar

- a. IA,IIB,IIIC,IVD
- b. IC,IID,IIIA,IVB
- c. IB,IIC,IIID,IVA
- d. ID,IIA,IIIB,IVC

ANSWER: b. IC,IID,IIIA,IVB

- **Arunachal Himalayas is inhabited by numerous ethnic tribes. Identify those tribes**

- I. Monpa
- II. Lepcha
- III. Dafla
- IV. Nishi

- a. I and II only
- b. I,III and IV only
- c. II and III
- d. All

View Answer / Hide Answer

ANSWER: b. I,III and IV only

- **Arrange the following eastern Hills as per their general alignment from north to south:**

I. Patkai Bum
II. Mizo Hills
III. Naga Hills
IV. Manipur Hills

- a. I,II,III,IV
b. II,IV,III,I
c. I,III,IV,II
d. III,II,I,IV

View Answer / Hide Answer

ANSWER: c. I,III,IV,II

- **Arrange the three major zones of the Northern Plains according to their fertility**

I. Bhabhar

II. Tarai

III. Alluvial plains

a. III,II,I

b. I,II,III

c. II,III,I

d. I,II,III

ANSWER: a. III,II,I

- **Consider the following statements:**

Assertion (A): In general, the flow of peninsular rivers is from west to east.

Reason (R): The general elevation of the peninsular plateau is from the west to the east.

- a. Both A and R are true and R is the correct explanation of A.
- b. Both A and R are true and R is not the correct explanation of A.
- c. A is true, but R is false.
- d. A is false, but R is true.

ANSWER: a. Both A and R are true and R is the correct explanation of A.

- **Karbi-Anglong Plateau is an extension of**
 - a. The Shivaliks
 - b. The peninsular Plateau
 - c. The Eastern Hills
 - d. None

ANSWER: b. The peninsular Plateau

Coastal plains of india

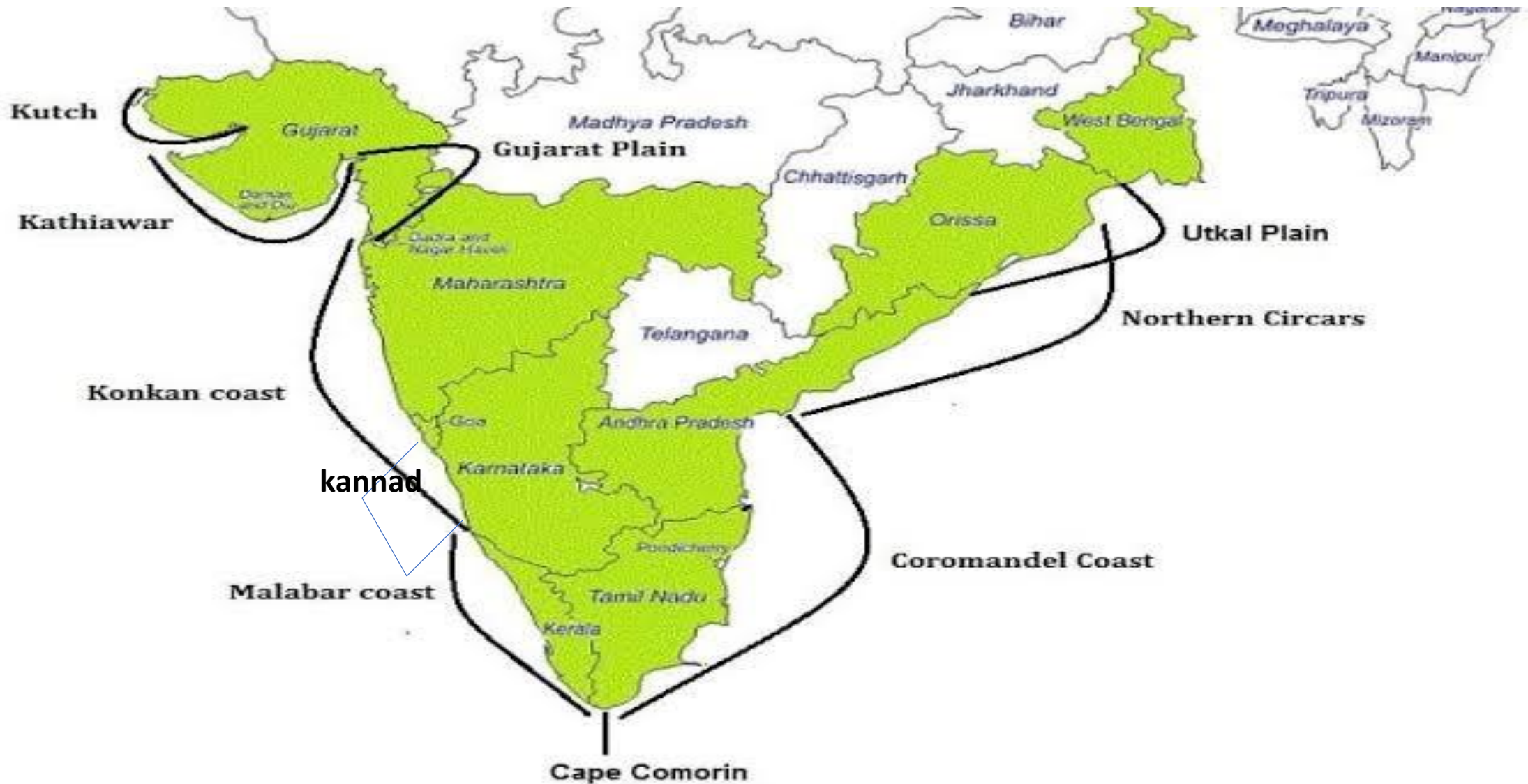
Eastern coastal plains

Western coastal plains

Important ports

Refernce: Ncert 6th; 9th and 11th

Coastal plains Of india



- **West Coast of India**
- **Western Coastal Plains of India**
 - **Kutch and Kathiawar region**
 - **Gujarat Plain**
 - **Konkan Plain**
 - **Kannad(Karnataka Coastal Plain)**
 - **Malabar Plain (Kerala Plain)**

Western coastal plains





GULFs

- Rann of Kachchh (pink flamingoes and wild asses)
- in the north to Kanniyakumari in the South.
- These are **narrow plains** with an average width of about **65 km**.
- Western coast is mainly divided into four categories
 - **Kachchh and Kathiawar coast**
 - **Konkan coast**
 - **Kanada coast**
 - **Malabar coast**
-

- **Kutch and Kathiawar region**

- Kutch and Kathiawar, though an extension of Peninsular plateau (because Kathiawar is made of the Deccan Lava and there are tertiary rocks in the Kutch area), they are still treated as integral part of the Western Coastal Plains as they are now levelled down.
- Lack of rains in recent times has turned it into arid and semi-arid landscape.

- Salt-soaked plain to the north of Kutch is the **Great Rann**. Its southern continuation, known as the **Little Rann** lies on the coast and south-east of Kachchh.
- Kathiawar lies to the south of the Kachchh. The central part is a highland of **Mandav Hills** from which small streams radiate in all directions (**Radial Drainage**).
- **Mt. Girnar (1,117 m)** is the highest point and is of volcanic origin.
- The **Gir Range** is located in the southern part of the Kathiawar. It is covered with dense forests and is famous as home of the **Gir lion**

• **Gujarat Plain**

- The Gujarat Plain lies east of Kachchh and Kathiawar and slopes towards the west and south west.
- Formed by the rivers **Narmada, Tapi, Mahi** and **Sabarmati**, the plain includes the southern part of Gujarat and the coastal areas of the Gulf of Khambhat.
- The eastern part of this plain is fertile enough to support agriculture, but the greater part near the coast is covered by windblown loess (heaps of sand).

• Konkan Plain

- The Konkan Plain south of the Gujarat plain extends from Daman to Goa (50 to 80 km wide).
- It has some features of marine erosion including cliffs, shoals, reefs and islands in the Arabian Sea.
- The **Thane creek** around Mumbai is an important embayment (a recess in a coastline forming a bay) which provides an **excellent natural harbour**.

- **Karnataka Coastal Plain**

- Goa to Mangalore.
- It is a **narrow plain** with an average width of 30-50 km, the maximum being 70 km near Mangalore.
- At some places the streams originating in the Western Ghats descend along steep slopes and make waterfalls.
- The **Sharavati** while descending over such a steep slope makes an impressive waterfall known as **Gersoppa (Jog) Falls** which is **271 m high**.
- **Angel falls** (979 m) in Venezuela is the highest waterfall on earth. **Tugela Falls** (948 m) in Drakensberg mountains in South Africa is the second highest.
- Marine topography is quite marked on the coast.

- **Malabar Plain (Kerala Plain)**

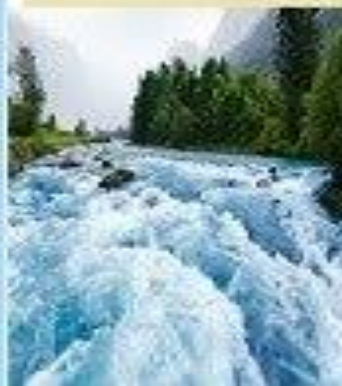
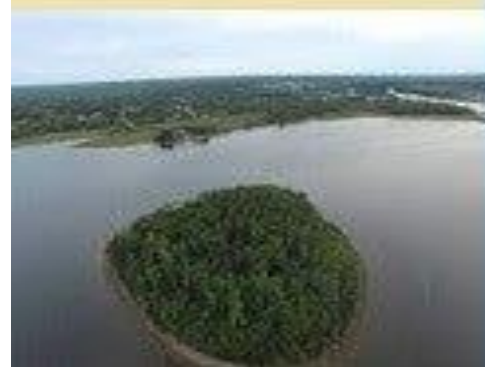
- The Kerala Plain is also known as the Malabar Plain.
- Between Mangalore and Kanniyakumari.
- This is much wider than the Karnataka plain. It is a low-lying plain.
- The existence of lakes, lagoons, backwaters, spits, etc. is a significant characteristic of the Kerala coast.
- The backwaters, locally known as **kayals** are the shallow **lagoons or inlets** of the sea, lying parallel to the coastline.
- The largest among these is the **Vembanad Lake** which is about 75 km long and 5-10 km wide and gives rise to a 55 km long spit {Marine Landforms}.
-

- **East Coast of India**
- **Eastern Coastal Plains of India**
 - **Utkal Plain**
 - **Andhra Plain**
 - **Tamil Nadu Plain**

Eastern coastal plains



- The plain along the Eastern coast of India is called the Eastern Coastal Plain. This plain stretches from the Delta of the Ganga to Kanya Kumari. This plain includes some parts of Orissa, Andhra Pradesh and Tamil Nadu. This plain is much wider than the Western Coastal Plain. Its width varies from 100 to 150 km. This plain can also be divided into two parts. The Northern part that lies in the North of river Krishna is called the Northern Circars. The Southern part is called The Coromandal Coast



- **(b) The Coromandal Coast :**
- The Eastern Coastal Plain from the delta of river Krishna to Kanya Kumari is called Coromandal Coast. This coast does not get rains from the summer, monsoons. It gets rain in the winter. The Cauvery delta has good irrigation system. Rice, millets and groundnuts are the main crops of this region. Fishing is an important occupation of the coastal people.

The coastline is generally straight and regular. It does not have many curves and cuts. Chennai (Madras) is the most important port of the Coromandal Coast. It is a man made port. It is the third largest port of India. Chennai has also the longest sea beach in India. This beautiful beach is known as the Marino Beach.

Pondicherry and Karaikal are other ports of this coast. Cuddalore and Tuticorin are famous for pearl fishing.

- East Coast of India
- Lies between the Eastern Ghats and the Bay of Bengal.
- It extends from the Ganga delta to Kanniyakumari.
- It is marked by deltas of rivers like the Mahanadi, the Godavari, the Krishna, and the Cauvery.
- Chilka lake and the Pulicat lake (lagoon) are the important geographical features of the east coast.

- **Eastern Coastal Plains of India**

- Extending from the **Subarnarekha** river along the West Bengal-Odisha border to Kanniyakumari.
- A major part of the plains is formed as a result of the alluvial fillings of the littoral zone (relating to or on the shore of the sea or a lake) by the rivers Mahanadi, Godavari, Krishna and Cauvery comprising some of the largest deltas.
- In contrast to the West Coastal Plains, these are **extensive plains** with an average width of 120 km.
- This plain is known as the **Northern Circars** between the Mahanadi and the Krishna rivers and **Carnatic** between the Krishna and the Cauvery rivers.

- Eastern coast is divided into three categories-
 - **Utkal coast**
 - **Andhra coast**
 - **Coromandel coast**
- **Utkal Plain**
- The Utkal Plain comprises coastal areas of Odisha.
- It includes the Mahanadi delta.
- The most prominent physiographic feature of this plain is the **Chilka Lake**.
- It is the **biggest lake** in the country and its area varies between 780 sq km in winter to 1,144 sq km in the monsoon months.
- South of Chilka Lake, low hills dot the plain

- **Andhra Plain**

- South of the Utkal Plain and extends upto **Pulicat Lake**. This lake has been barred by a long sand spit known as **Sriharikota Island** (ISRO launch facility).
- The most significant feature of this plain is the delta formation by the rivers Godavari and Krishna.
- The two deltas have merged with each other and formed a single physiographic unit.

- The combined delta has advanced by about 35 km towards the sea during the recent years. This is clear from the present location of the **Kolleru Lake** which was once a lagoon at the shore but now lies far inland {Coastline of Emergence}.
- This part of the plain has a straight coast and badly lacks good harbours with the exception of **Vishakhapatnam** and **Machilipatnam**.

• **Tamil Nadu Plain**

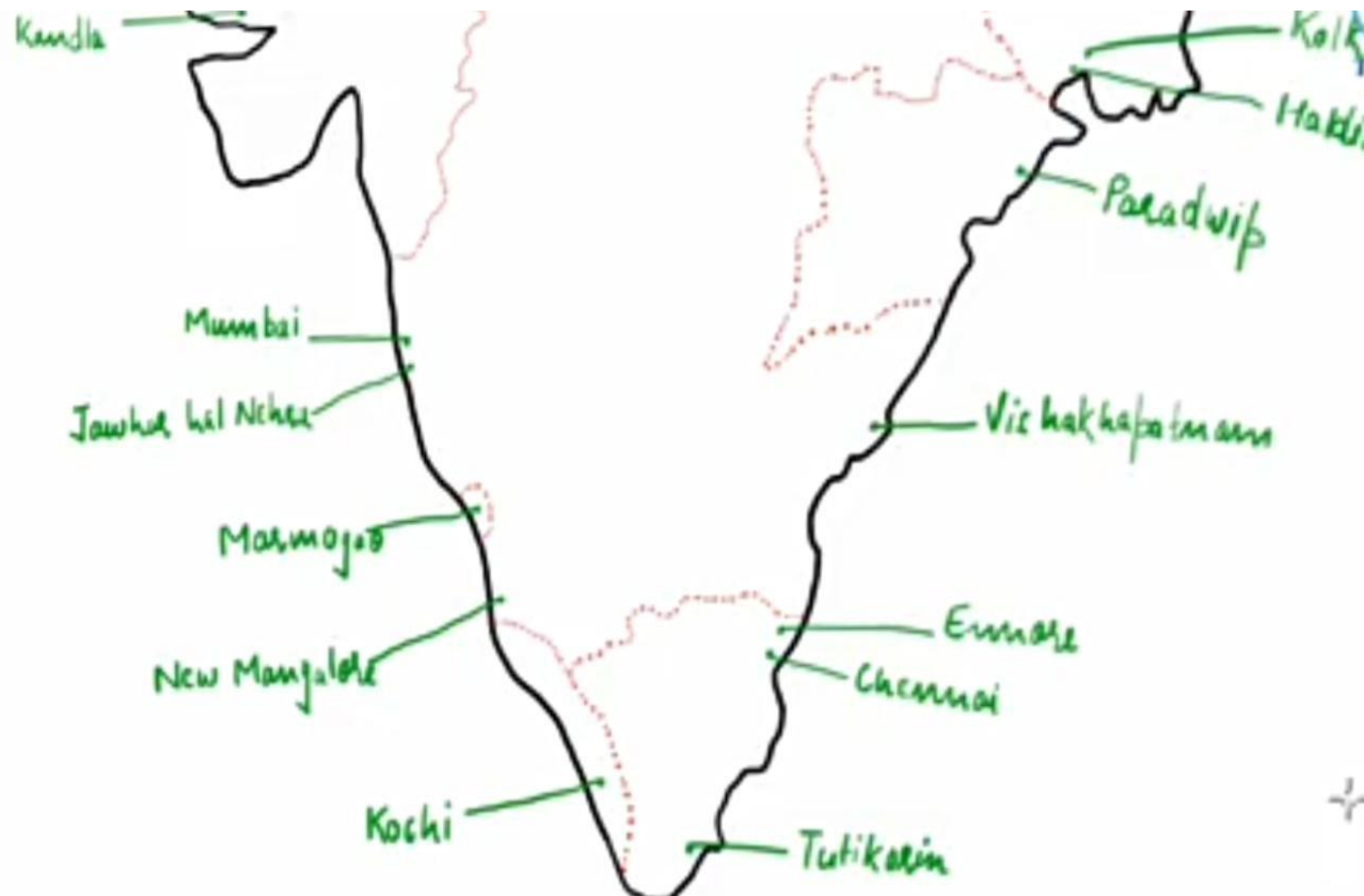
- The Tamil Nadu Plain stretches for 675 km from Pulicat lake to Kanniyakumari along the coast of Tamil Nadu. Its average width is 100 km.
- The most important feature of this plain is the Cauvery delta where the plain is 130 km wide.
- The fertile soil and large scale irrigation facilities have made the Cauvery delta the granary of South India.

Important ports

Zone	State	Port	Features
Eastern Coast	Tamil Nadu	Chennai	Artificial Port Second busiest port
Western Coast	Kerala	Kochi	Sited in the Vembanad lake Exports of spices and salts
Eastern Coast	Tamil Nadu	Ennore	India's First corporatized port
Eastern Coast	West Bengal	Kolkata	India's only major Riverine port Situated on Hugli river Known as Diamond Harbour
Western Coast	Gujarat	Kandla	Known as Tidal Port Acknowledged as Trade Free Zone Largest port by volume of cargo handled.
Western Coast	Karnataka	Mangalore	Deals with the iron ore exports
Western Coast	Goa	Mormugao	Situated on the estuary of the river Zuari
Western Coast	Maharashtra	Mumbai Port Trust	Largest Natural Port and harbour In India The busiest port in India

Western Coast	Maharashtra	Mumbai Port Trust	Largest Natural Port and harbour In India The busiest port in India
Western Coast	Maharashtra	Jawaharlal Nehru Port Trust (JNPT) also known as Nhava Sheva, Navi Mumbai	Largest Artificial Port It is the Largest Container Port in India.
Eastern Coast	Odisha	Paradip	Natural Harbor deals with the export of iron and aluminium
Eastern Coast	Tamil Nadu	Tuticorin	A major port in south India deals with the fertilizers and petrochemical products
Eastern Coast	Andhra Pradesh	Visakhapatnam	Deepest port of India deals with the export of iron ore to Japan. Amenities for building and fixing of ships are available

- **Jawahar Lal Nehru Port Trust (JNPT) won the award of the 'Best Global Port in India', the third time in a row in the Atal Shashtra Markenomy Award 2020**
- **Cuddalore and Tuticorin are famous for pearl fishing.(he occupation or industry of fishing for pearls)**



• **Significance of Indian Coastlines**

- The coastlines of India extend up to 7516.6 km including the island groups Andaman and Nicobar and Lakshadweep.
- As a result, the areas that are covered under the Indian coastlines enjoys a favorable climate with no extreme temperature which is ideal for human development. Some of the major significance of the coastal plains in India are mentioned below:
- The coastal plains in India are mostly covered by **fertile soils which are best for cultivations**. Rice is the major crop that is cultivated in these regions.

- The **big and small ports along the Indian coastlines help in carrying out trade.**
- The sedimentary rocks of these coastal plains are said to contain **large deposits of mineral oil** which can be used as a source of marine economy.
- **Fishing** has become an important occupation of the people living in coastal areas.
- The coastal plains in India are **rich in coastal and marine ecosystems** which also include a wide range of **mangroves, coral reefs, estuaries, and lagoons serving as great tourism potential.**

Knowledge check

1) Which of the following is an artificial port:

- I)paradip
- li)Mumbai port
- lii)Vishakhapatnam
- Iv)chennai

2) Western coastal plains are narrower than the eastern ones(true/false)

3)Konkan coast is a part of eastern coastal plains(true/false)

4) Malabar Plain is also known as Kerala plain(true/false)

5)Estuary formation is a feature of western coastal plains while the delta formation is of the eastern coastal plains(true/false)

The Islands of India

India has 615 islands/islets. The majority of them, around 572 islands/islets are located in the Bay of Bengal and remaining 43 islands/islets are located in the Arabian Sea. Apart from these, there are some coral islands in the Gulf of Mannar and Khambhat regions and there are some offshore islands along the mouth of the Ganga river.

Islands of India

- The Indian Island groups are generally grouped into two:
- The Andaman and Nicobar Islands located in the Bay of Bengal
- The Lakshadweep and Minicoy Islands located in the Arabian Sea (adjacent to Kerala coast)



- **The Andaman & Nicobar Islands**
- Andaman and Nicobar Islands situated in the Bay of Bengal, run like a narrow chain in the north-south direction.
- The **main islands** under the Andaman and Nicobar Islands group are:
 - **North Andaman**
 - **Middle Andaman**
 - **South Andaman**
 - **Little Andaman**
 - **Car Nicobar**
 - **Little Nicobar**
 - **Great Nicobar**

- These islands are separated from one another by very narrow straits.
- Andamans are separated from Nicobar by **10-degree channel** (10-degree latitude).
- South Andaman and Little Andaman are separated by **Duncan Passage**.
- The **Grand Channel** is between the Great Nicobar islands and the Sumatra islands of Indonesia.
- The Coco Strait is between the North Andaman islands and the Coco Islands of Myanmar.
- Andaman and Nicobar Islands group is a **Union Territory** administered by the President through a Lt. Governor.

- **Port Blair**, located in South Andaman is the administrative capital of the Andaman and Nicobar Islands.
- The southernmost point of India is The **Indira Point**, (formerly known as Pygmalion Point and Parsons Point) which is the southern point of the Great Nicobar Islands.
- The Andaman and Nicobar Islands are part of the **submarine tertiary fold mountains** which are protruding out of the sea. These mountains form a link with Arakan Yoma and Sumatra.
- The highest peak of the Andaman and Nicobar Islands is **Saddle Peak**, located in the North Andaman.

- The Andaman and Nicobar Island has a **tropical marine climate** influenced by the seasonal flow of monsoon winds.
- The region is under dense **tropical rain forests**. The coastal regions have mangrove forests.
- **Coconut** fruit is the staple food of the people. Fisheries is also important.
- The Islands are also famous for the largest and rarest species of crab, the **Giant Robber Crab**. It can climb the coconut trees and break the hard shell of the fruit.

- Many islands are **uninhabited**. The inhabited islands are also **sparsely populated**.
- The entire region is vulnerable to earthquakes as it is in the major earthquake zone.
- The Andaman and Nicobar Islands are also known as the **Emerald Islands**.
- Barren Island, located in the east of Middle Andaman is India's only active volcano.
- The **Narcondam Island**, located in the north-east of North Andaman is also a volcanic island.
-

- **Lakshadweep Islands**
- Lakshadweep Islands situated in the Arabian Sea is a group of 36 islands having an area of 32 square kilometers.
- The **main islands** under the Lakshadweep Islands group are:
 - Kavaratti
 - Agatti
 - Minicoy
 - Amini

- These islands were earlier known as **Laccadive, Minicoy and Amindivi** Islands.
- The name Lakshadweep was adopted on 1 November 1973
- These islands are separated from one another by very narrow straits.
- The Lakshadweep Islands group is a **Union Territory** administered by the President through a Lt. Governor.
- It is the **smallest Union Territory** of India.
- **Kavaratti** is the administrative capital of the Lakshadweep Islands. It is also the principal town of the Union Territory.

- It is a **uni-district Union Territory** and is comprised of 12 atolls, three reefs, five submerged banks, and ten inhabited islands.
- The Lakshadweep Islands are located at a distance of 280 km to 480 km **off the Kerala coast**.
- The entire Lakshadweep islands group is made up of **coral deposits**.
- Fishing is the main occupation on which livelihoods of many people depend.
- **Minicoy Island**, located to the south of the nine-degree channel is the largest island among the Lakshadweep group.

- **8 Degree Channel** (8 degrees north latitude) separates islands of Minicoy and Maldives.
- **9 Degree Channel** (9 degrees north latitude) separates the island of Minicoy from the main Lakshadweep archipelago.
- In the Lakshadweep region, there is an **absence of forests**.
- **Pitti Island** is an important breeding place for sea turtles and for a number of pelagic birds such as the brown noddy, lesser crested tern and greater crested tern. The Pitti island has been declared a **bird sanctuary**.

Other Important Islands of India

- **Sriharikota Island-** It is located between Pulicat Lake and the Bay of Bengal in the Nellore district of the state of Andhra Pradesh. Sriharikota is one of the satellite launching stations of the Indian Space Research Organisation.
- **Abdul Kalam Island/ Wheeler Island-** The Abdul Kalam Island is located off the Odisha coast. It is India's most advanced missile testing site. The island was earlier named after an English commandant Lieutenant Wheeler

- **Pamban Island-** It is located between India and Sri Lanka in the Gulf of Mannar and in the Ramanathapuram district of the state of Tamil Nadu. It is also known as Rameswaram Island. Most of Pamban Island is covered with white sand.
- **Majuli Island-** It is located in the state of Assam. It is a large riverine island in the Brahmaputra river. The livelihoods of people on the island are dependent on agriculture. The island is under severe ecological threat due to the extensive soil erosion on its banks.

- **Diu Island**-It is located off the south coast of Kathiawar. Diu Island is famous for the historical Diu fort and beautiful beaches.
- **Sagar Island**-It is located in the Ganga delta in the Bay of Bengal. It is a large island. It is also an important place of Hindu pilgrimage.
- **Halliday Island**-It is located in the state of West Bengal and is part of the Sunderbans region. It is located in the river Malta. It is also designated as a wildlife sanctuary.
- **Phumdis/Floating Islands**-They is located in the state of Manipur. It is part of the Keibul Lamjao National Park. It is famous for the Eld's deer/
Sangai

Kowledge check

1) Sriharikota Island is located in

- Odisha
- Andra pradesh
- Karnataka
- West bengal

- **Location & extent**– To the north-west of the Aravali hills.
- It covers Western Rajasthan and extends to the adjacent parts of Pakistan.
- Major portion in Rajasthan
- About 85% of the Thar Desert is located within India, and the remaining 15% is in Pakistan.
- More than 60% of the desert lies in the Indian state of Rajasthan, and it extends into Gujarat, Punjab, and Haryana, and the Pakistani adjacent area.

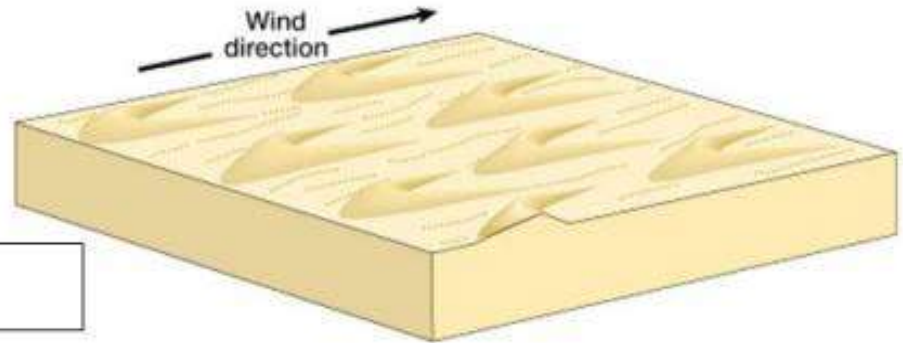
- covers an area of 200,000 km² (77,000 sq mi) and forms a natural boundary between India and Pakistan.
- It is the world's 17th-largest desert, and the world's 9th-largest hot subtropical desert.
- The **Indian Desert** is a land of undulating topography dotted with longitudinal dunes and barchans.
- This region receives low rainfall below 150 mm per year; hence, it has an arid climate with low vegetation cover.

The Indian Desert

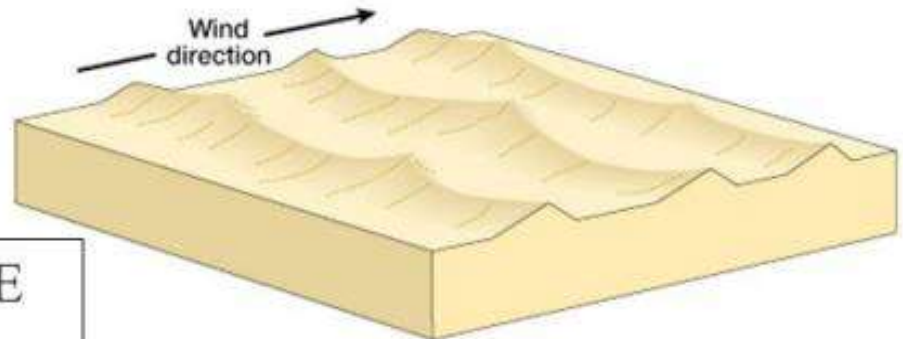


Types of Dunes

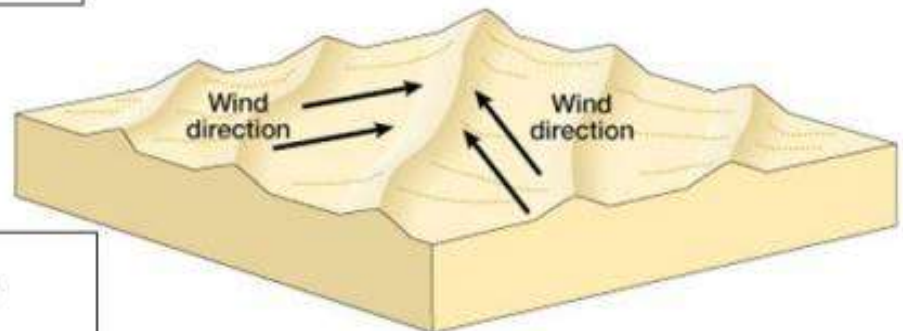
BARCHAN



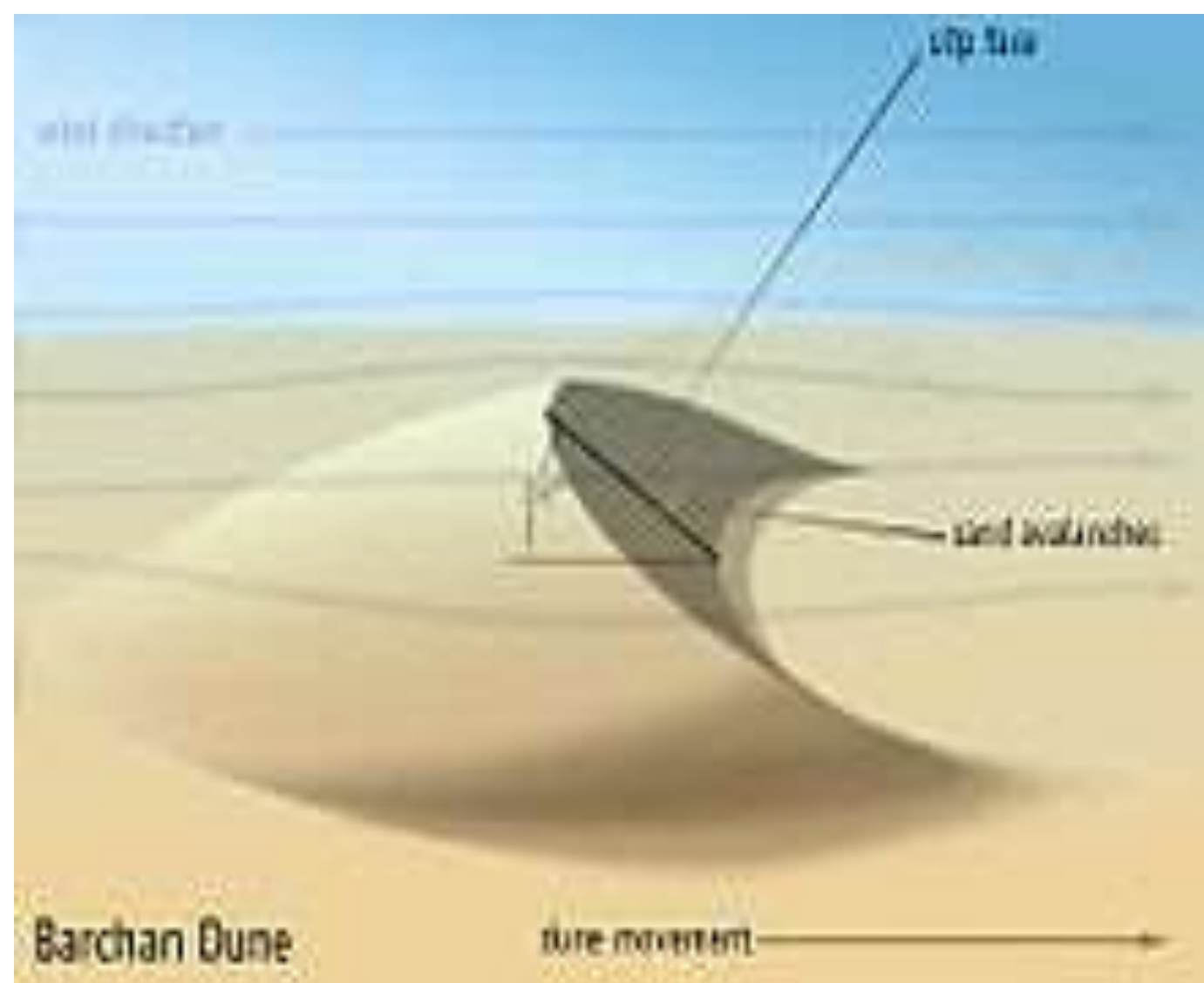
TRANSVERSE
DUNES



LONGITUDINAL
DUNES (SEIFS)



- **Dunes:** a mound or ridge of sand or other loose sediment formed by the wind, especially on the sea coast or in a desert.
- A **barchan** or **barkhan dune** : is a crescent-shaped dune



- The desert proper is called the **Marusthali** (dead land) as this region has an arid climate with low vegetation cover.
- In general, the Eastern part of the Marushthali is rocky, while its western part is covered by shifting sand dunes.
- **Bagar**: Bagar refers to the semi-desert area which is west of Aravallis. Bagar has a thin layer of sand. It is drained by **Luni** in the south whereas the northern section has a number of salt lakes.

- The Rajasthan Bagar region has a number of short seasonal streams which originate from the Aravallis.
- These streams support agriculture in some fertile patches called **Rohi**.
- Even the most important river '**Luni**' is a seasonal stream. The Luni originates in the Pushkar valley of the Aravalli Range, near Ajmer and flows towards the southwest into the Rann of Kutch.

- The region north of Luni is known as the **Thali or sandy plain**.
- There are some streams which disappear after flowing for some distance and present a typical case of inland drainage by joining a lake or **playa e.g. the Sambhar Lake**.
- The lakes and the playas have brackish water which is the main source of obtaining salt.

- **Playa:** also called **pan, flat, or dry lake**, flat-bottom depression found in interior desert basins and adjacent to coasts within arid and semiarid regions, periodically covered by water that slowly filtrates into the ground water system or evaporates into the atmosphere, causing the deposition of salt, sand, and mud along the bottom and around the edges of the depression.

Features related

- **Sand dunes:** It is a land of undulating topography dotted with
 - **longitudinal dunes,**
 - **transverse dunes** and
 - **barchans.**
- **Mushroom rocks**
- **Shifting dunes** (locally called **Dhrians**)
- **Oasis** (mostly in its southern part)

- **Oasis:** unexpected source of water; fertile tract of land that occurs in a desert wherever a perennial supply of fresh water is available. Oases vary in size, ranging from about 1 hectare (2.5 acres) around small springs to vast areas of naturally watered or irrigated land

points to remember

- Sahara Desert is the world's largest hot desert in the world.
- It stands in third position in comparison with all the deserts.
- The first two deserts are the cold desert(antartica and arctic) and Sahara comes at third
- Saltwater lakes within the Thar Desert include the Sambar, Kuchaman, Didwana, Pachpadra, and Phalodi in Rajasthan and Kharaghoda in Gujarat.
- These lakes receive and collect rainwater during monsoon and evaporate during the dry season. The salt is derived by the weathering of rocks in the region

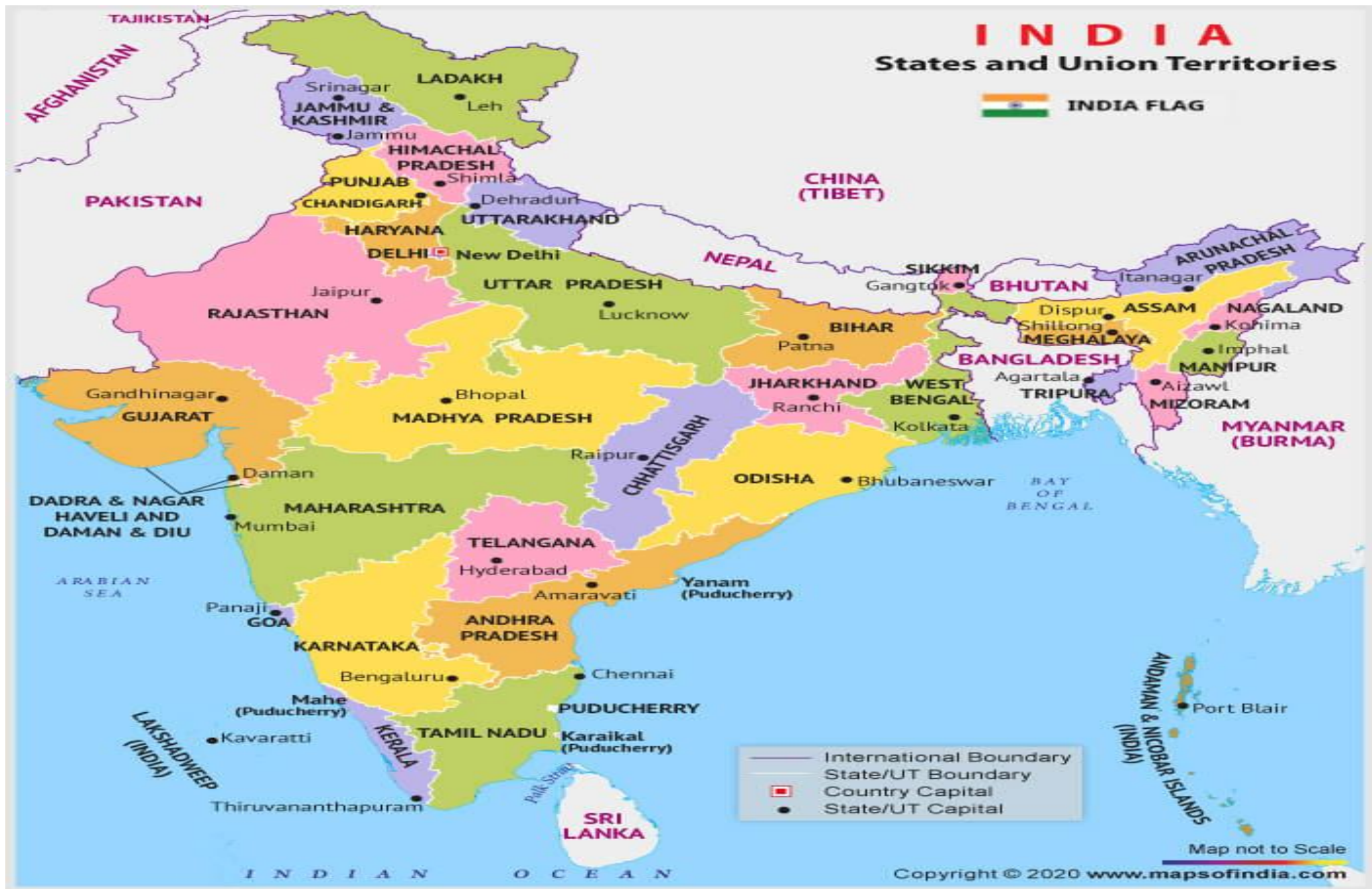
- Indira Gandhi Canal brings fresh water to the Thar Desert. It was conceived to halt spreading of the desert to fertile areas.
- The Desert National Park(near jaisalmer)- great Indian bustard , blackbuck, chinkara, wolf etc:
- The Tal Chhapar Sanctuary-is an Important Bird Area. It is located in the Churu District 210 km from Jaipur, in the Shekhawati region

- 1)the fertile patches in the indian desert are called Rohi (true/false)
- Luni is the major river in the indian desert(true/false)
- Bagar is:
 - i)A semi-desert area which lies to west of Aravallis.
 - ii)semi-desert area which lies to east of Aravallis.
 - iii)Is the proper desert portion
 - iv) None of the above

GEOGRAPHY

Political divisions of india

Lecture 1



- **Jammu and Kashmir Reorganisation Act, 2019:**
- On the 5th of August, 2019, the Jammu and Kashmir Reorganisation Bill, 2019 was introduced in the Rajya Sabha.
- The bill sought to bifurcate the state of Jammu & Kashmir into two Union Territories – the UT of Jammu and Kashmir and the UT of Ladakh.
- With both the houses of parliament giving their assent to the bill, the number of states and Union Territories in India has changed.

- India will now have **28** states and the number of Union Territories in the country will be **8** (Dadra & Nagar Haveli and Daman & Diu were merged and the merger came into effect on 26th January 2020.)

- With effect from October 31st 2019, the state of Jammu and Kashmir has been officially bifurcated into the Union Territories (UT) of Jammu & Kashmir and Ladakh. the political map of India has changed with the creation of two new Union territories. The political map of India has changed after the withdrawal of special status given to Jammu and Kashmir (J&K) under Article 370 by the centre.

- The northern states of India are:
- Jammu and Kashmir
- Uttarakhand
- Himachal Pradesh
- Uttar Pradesh
- Punjab
- Haryana

Jammu and Kashmir is called the crown of India because the state is shaped like a crown and is located at the head of India. Haryana and Punjab share Chandigarh as a common state capital. This is because Haryana was a part of Punjab till 1966.

- The western region of India comprises:
- Rajasthan,
- Maharashtra,
- Gujarat and
- Goa

Central India comprises the states of Madhya Pradesh and Chhattisgarh. It was originally the largest state in India in terms of geographical area until in November 2000, Chhattisgarh was carved out of it

- The eastern region of India consists of:
- Bihar
- Jharkhand
- West Bengal
- Orissa

Orissa is where the historical Kalinga war was fought. This war led Emperor Ashoka to embrace non-violence and the teachings of Buddha

- The north-eastern region of India comprises:
- Assam
- Tripura
- Meghalaya
- Manipur
- Nagaland
- Arunachal Pradesh
- Mizoram and
- Sikkim

The region is also known as the Land of the Seven Sisters.

Sikkim is the only state in the region that is not a part of the Seven Sisters.

- South India is famous for its greenery and temples and consists of:
- Andhra Pradesh
- Tamil Nadu
- Karnataka
- Kerala

Karnataka is best known for its software industry and now biotechnology. Kerala, or God's Own Country, as it is often called, is one of the most popular tourist destinations in India. Kerala also boasts of a very high literacy rate - almost 100 per cent!

S.no	States Name	Capital	Founded on
1	Andhra Pradesh	Hyderabad (Proposed Capital Amaravati)	1 Nov. 1956
2	Arunachal Pradesh	Itanagar	20 Feb. 1987
3	Assam	Dispur	26 Jan. 1950
4	<u>Bihar</u>	Patna	26 Jan. 1950
5	Chhattisgarh	Raipur	1 Nov. 2000
6	Goa	Panaji	30 May. 1987
7	Gujarat	Gandhinagar	1 May. 1960
8	<u>Haryana</u>	Chandigarh	1 Nov. 1966
9	Himachal Pradesh	Shimla	25 Jan. 1971
10	Jharkhand	Ranchi	15 Nov. 2000

11	Karnataka	Bengaluru (formerly Bangalore)	1 Nov. 1956
12	Kerala	Thiruvananthapuram	1 Nov. 1956
13	Madhya Pradesh	Bhopal	1 Nov. 1956
14	Maharashtra	Mumbai	1 May. 1960
15	Manipur	Imphal	21 Jan. 1972
16	Meghalaya	Shillong	21 Jan. 1972
17	Mizoram	Aizawl	20 Feb. 1987
18	Nagaland	Kohima	1 Dec. 1963
19	<u>Odisha</u>	Bhubaneswar	26 Jan. 1950
20	Punjab	Chandigarh	1 Nov. 1956
21	<u>Rajasthan</u>	Jaipur	1 Nov. 1956
22	Sikkim	Gangtok	16 May. 1975
23	Tamil Nadu	Chennai	26 Jan. 1950

24	Telangana	Hyderabad	2 Jun. 2014
25	Tripura	Agartala	21 Jan. 1972
26	Uttar Pradesh	Lucknow	26 Jan. 1950
27	Uttarakhand	Dehradun (Winter) Gairsain (Summer)	9 Nov. 2000
28	West Bengal	Kolkata	1 Nov. 1956

Union territories	Capital	Founded on
Andaman and Nicobar Islands	Port Blair	1 Nov. 1956
Chandigarh	Chandigarh	1 Nov. 1966
Dadra and Nagar Haveli,	Daman	26 Jan. 2020
Delhi	New Delhi	9 May. 1905
Lakshadweep	Kavaratti	1 Nov. 1956
Puducherry	Pondicherry	1 Nov. 1954
Jammu and Kashmir	Srinagar (Summer) Jammu (Winter)	31 Oct 2019
Ladakh	Leh	31 Oct 2019

State	Union Territories
The state has its own administrative units with their own elected government.	Union Territories are constituent units which are controlled and administered by the Central Government.
Executive Head is the Governor	Executive Head is the President
The relationship with the Centre is Federal.	Unitary with the Centre. i.e. all the powers rest in the hands of Union.
Administered by the Chief Minister and elected by the people.	Administered by the Administrator which is appointed by the President. (except Delhi, Puducherry and Jammu & Kashmir)
Chief Minister is the real head.	Lieutenant is the real head.

- Since 26th January 2020, India has **8 union territories**. The U.T Daman and Diu, Dadra and Nagar Haveli have become a single union territory.
- **On August 5**, the central government had also announced the **abrogation** of the special status given to Jammu and Kashmir under Article 370 and its division into two Union Territories i.e. UTs of Jammu and Kashmir, and Ladakh.
- With the merger of **Daman and Diu, and Dadra and Nagar Haveli**, the number of UT's have come down to eight

- Articles **1 to 4** under **Part 1** of the constitution describe India and its territories.
- **Article 1** describes India as the “Union of States” and not “Federation of states” The names of states and their territories are mentioned in the first schedule of the constitution.
- **Article 2** permits the parliament to ‘admit into the Union of India or establish new states on such terms as it thinks fit.’ Hence, it gives power to parliament to establish new states.
- **Article 3** authorises the parliament to-
 - a) form new state by separation of territory
 - b) increase the area of state
 - c) diminish the area of any state
 - d) alter the boundary of any state
 - e) alter the name of any state

Sl.No.	States	Language
1	Andhra Pradesh	Telengu and Urudu
2	Arunachal Pradesh	Miji, ApotANJI,Merdukpe n, Tagin,Adi,Honpa, Bangini-Nishi
3	Assam	Assamese
4	Bihar	Hindi
5	Chattisgarh	Hindi
6	Goa	Marathiand Konkani
7	Gujarat	Gujarati
8	Haryana	Hindi
9	Himachal Pradesh	Hindi and Pahari
10	Mizoram	Mizo and English
11	Jammu & Kashmir	Kashmiri, Dogiri, Urdu,L adakki, Pahari, Panjabi and Dadri
12	Jharkhand	Hindi
13	Karnataka	Kannada
14	Kerala	Malayalam

14	Kerala	Malayalam
15	MadhyaPradesh	Hindi
16	Maharashtra	Marathi
17	Manipur	Manipuri
18	Meghalaya	Khashi, JaintiaAnd Garo
19	Nagaland	Ao, Konyak, Angami,Se ma and Lotha
20	Odisha	Oriya
21	Punjab	Punjabi
22	Rajasthan	Rajasthani and Hindi
23	Sikkim	Bhutia, Hindi, Nepali, Lepcha, Limbu
24	Tamil Nadu	Tamil
25	Tripura	Bengali, Tripuri, Manipuri, Kakborak
26	Telangana	Telugu
27	Uttar Pradesh	Hindi

28	Uttrakhand	Hindi
29	West Bengal	Bengali

- **Which State having common borders with the maximum number of States → Uttar Pradesh**
- **largest State (area-wise) in India → Rajasthan**
- **Smallest state: Goa**
- **state in India occupies the same ranking position in respect of area and population → Meghalaya**

S.NO	State	Capital	updated chief ministers	Updated Governors
1	Andhra Pradesh	Amaravati	Y. S. Jaganmohan Reddy	Biswa Bhushan Harichandan
2	Arunachal Pradesh	Itanagar	Pema Khandu	B.D. Mishra
3	Assam	Dispur	Sarbananda Sonowal	Jagdish Mukhi
4	Bihar	Patna	Nitish Kumar	Phagu Chauhan
5	Chhattisgarh	Raipur	Bhupesh Baghel	Anusuiya Uikey
6	Goa	Panaji	Pramod Sawant	Bhagat Singh Koshiyari (Addl Charge)
7	Gujarat	Gandhinagar	Vijay Rupani	Acharya Dev Vrat
8	Haryana	Chandigarh	Manohar Lal Khattar	Satyadev Narayan Arya
9	Himachal Pradesh	Shimla	Jai Ram Thakur	Bandaru Dattatreya
10	Jharkhand	Ranchi	Hemant Soren	Draupadi Murmu

11	Karnataka	Bengaluru	B. S. Yeddyurappa	Vajubhai Vala
12	Kerala	Thiruvananthapuram	Pinarayi Vijayan	Arif Mohammed Khan
13	Madhya Pradesh	Bhopal	Shivraj Singh Chouhan	Anandiben Patel (Addl. Charge)
14	Maharashtra	Mumbai	Udhav Thackarey	Bhagat Singh Koshyari
15	Manipur	Imphal	N. Biren Singh	Najma Heptulla
16	Meghalaya	Shillong	Conrad Sangma	Satya Pal Malik
17	Mizoram	Aizawl	Zoramthanga	PS Sreedharan Pillai
18	Nagaland	Kohima	Neiphiu Rio	R N Ravi
19	Odisha	Bhubaneswar	Naveen Patnaik	Ganeshi Lal
20	Punjab	Chandigarh	Captain Amarinder Singh	V P Singh Badnore
21	Rajasthan	Jaipur	Ashok Gehlot	Kalraj Mishra
22	Sikkim	Gangtok	Prem Singh Tamang	Ganga Prasad
23	Tamil Nadu	Chennai	Edappadi K. Palaniswami	Banwarilal Purohit
24	Telangana	Hyderabad	K. Chandrashekar Rao	Tamilisai Soundararajan

24	Telangana	Hyderabad	K. Chandrashekar Rao	Tamilisai Soundararajan
25	Tripura	Agartala	Biplab Kumar Deb	Ramesh Bais
26	Uttar Pradesh	Lucknow	Yogi Adityanath	Anandiben Patel
27	Uttarakhand	Dehradun. Gairsain(summer capital)	Trivendra Singh Rawat	Baby Rani Maurya
28	West Bengal	Kolkata	Mamata Banerjee	Jagdeep Dhankhar

Andaman and Nicobar Islands	Port Blair		Devendra Kumar Joshi
Chandigarh	Chandigarh		V.P. Singh Badnore
Dadra and Nagar Haveli and Daman and Diu	Daman		Praful Khoda Patel
Delhi	Delhi	Arvind Kejriwal	Anil Baijal
Lakshadweep	Kavaratti		Shri. Dineshwar Sharma IPS
Puducherry (Pondicherry)	Pondicherry	V Narayanasamy	Tamilisai Soundararajan
Jammu and Kashmir (proposed from 31 October 2019)	Srinagar (summer), Jammu (winter)		Manoj Sinha
Ladakh (proposed from 31 October 2019)	Ladakh		Radha Krishna Mathur

Knowledge check

1) The only state to have 3 de jure capitals is:

- Madhya pradesh
- Andhra pradesh
- Karnataka
- Uttar pradesh

2) Indira Point, the southernmost point of India, lies in:

- Lakshwadeep
- Andaman and nicobar
- 8 degree channel
- None of the above

INDIA

States and Union Territories



- **India is located within both the eastern hemisphere, like the rest of Asia, and the northern hemisphere. India is considered part of the South Asia region, and it is the seventh-largest country in the world by geographical size.**
- ***India shares land borders with Pakistan,***
- ***Afghanistan ,China ,Nepal ,Bhutan , Bangladesh and Myanmar .The island countries Sri Lanka and the Maldives situated in the Indian Ocean are also India's neighbours***

- Indian sovereignty in sea extends upto 12 nautical miles.
- 1 Nautical Miles (Nm) =. 1.852 Kilometers (km)
- Each coastal state may claim a territorial sea that extends seaward up to 12 nautical miles (nm) from its baselines. The coastal state exercises sovereignty over its territorial sea, the airspace above it, and the seabed and subsoil beneath it

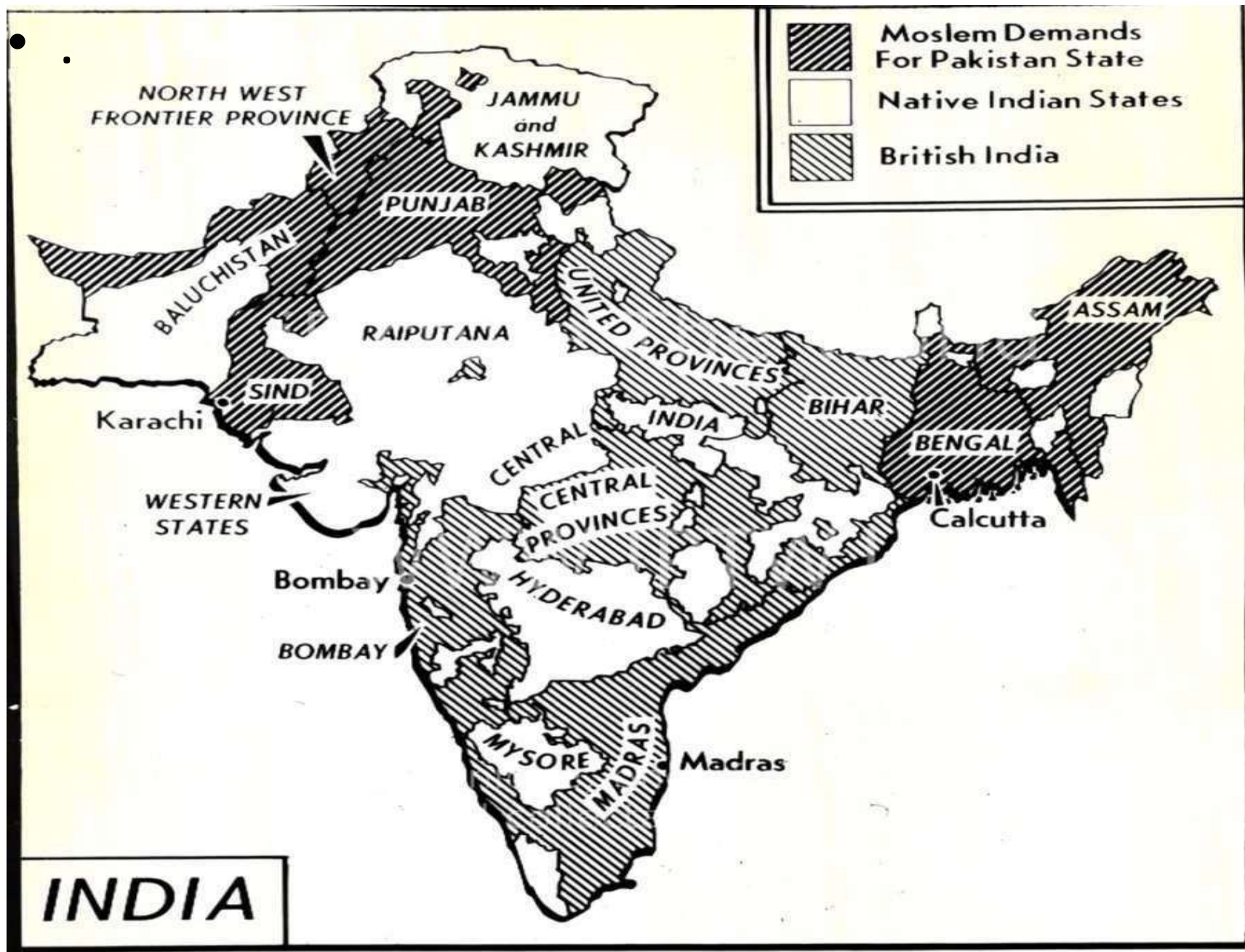
- The 565 princely states were given a choice to either join the new Dominion of India or the newly formed state of Pakistan □
- *Though most of the princely States within British India has signed the Instrument of Accession and joined the Dominion of India by 15 august 1947 , the political status of Hyderabad ,Junagadh and Kashmir still remained undecided .There were also some small territories in India that still remained under French or Portuguese colonial rule.*
- *The Indian Government also had to adopt policies to meet the enormous challenges before the newborn country .*

Absorption of kashmir,junagad and hyderabad

- *□ The Maharaja of Kashmir signed the Instrument of Accession after Pakistani Invaders entered Kashmir in October 1947*
- *.India then sent troops to drive out the Invaders .In 1948 ,the people of Junagadh voted in favour of joining India . Later that year ,Indian troops helped in the absorption of Hyderabad following a revolt in that state .*

ABSORPTION OF FRENCH AND PORTUGUESE COLONIES

- *By the end of 1954 , French Colonial rule in Pondicherry , Chandannagar , Mahe , Karaikal and Yanam came to an end . These Territories were integrated with India .*
- *The Portuguese colonies in India were Goa , Daman and Diu , Dadra and Nagar Haveli . In 1954 Dadra and Nagar Haveli were liberated by Freedom Fighters .*
- *Indian troops liberated Goa , Daman and Diu from the Portuguese in 1961 .*



- After independence, the demand for the reorganisation of states on linguistic basis was raised from different regions. The Constitution Assembly appointed S. K. Dhar Commission in Nov. 1947 to study the issue of reorganisation of States on linguistic basis. The commission in its report , submitted in 1948, recommended against the organisation of states purely on basis

- **The Congress, in its Jaipur session in 1948, appointed a three member committee to consider the recommendations of Dhar Commission. The Committee is popularly known as JVP Committee after the name of its three members – Jawaharlal Nehru, Vallabh Bhai Patel, and Pattabhi Sitarammaiah. The committee rejected language as the basis of reorganisation of states. It suggested that the security, unity and economic prosperity of the nation as the criteria of reorganisation. The Congress Working Committee accepted its recommendation in 1949, but the demand for linguistic reorganisation of States persisted in southern states particularly in Telgu speaking areas. As the agitation took a violent turn in Telgu speaking area, the Congress conceded the reorganisation of Telgu speaking area in the State of Andhra Pradesh in 1953.**

CREATION OF ANDRA

- *Lingual basis(based on language)*
- *when Sriramulu died on 15 December 1952 after fasting 58 days the situation went out of control . The Congress was forced to create Andhra it came into existence in October 1953 .*

- To make an exhaustive study of the problem, the Government of India setup State Reorganisation Commission in 1953 which was headed by Fazal Ali. The other members of the commission were Hriday Nath Kunzru and K M Panikkar. The commission, in its report submitted in 1955, accepted the language as the basis of reorganisation of the States. It suggested the reorganisation of 27 states of various categories into 16 states and 3 union territories. The State Reorganisation Act, 1956 was passed by parliament to give effect to the recommendations of the commission.

- *A few years later the Bombay state split into Marathi-speaking Maharashtra and Gujarati-speaking Gujarat . Later the Hindi-speaking areas of Punjab were made a separate state called Haryana . The Tamil-speaking state of Madras was given a new name - Tamil Nadu . Some of India's States were created for tribal populations in different parts of country Meghalaya , Manipur , Nagaland , Jharkhand, Chhattisgarh and Uttarakhand .*

Reorganisation of states

- ☐ *Soon after the creation of Andhra , the States Reorganisation Commission was set up to redefine the boundaries of India's States .According to its suggestions , some new States were created in 1956 .These included Assamese ,Bengali ,Oriya ,Kannada and Malayalam .The Telugu-Speaking regions of the Hyderabad state were added to Andhra which was renamed Andhra Pradesh .*

Some important points

- **Andra pradesh** → split into Andra pradesh and telangana(AP reorganisation act 2014)
- **Madhya pradesh** split in chattisgarh and MP (1 nov 2000)
- **Bihar** reorganisation act created jharkhand as a new state.

MCQ

Q) Assam shares a border with Bhutan and Bangladesh.

2. West Bengal shares a border with Bhutan and Nepal.

3. Mizoram shares a border with Bangladesh and Myanmar. Which of the statements given above are correct?

- A. 1, 2 and 3
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1 and 3 only

- **REVISION THROUGH MCQS**
- **Political divisions of india**
 - **Lecture 3**

INDIA

States and Union Territories



- **Q)BHUTAN IS SURROUNDED BY:**
- A.Assam, Arunachal Pradesh, West Bengal, Sikkim
- B.Assam, Mizoram, West Bengal, Bihar
- C.Arunachal Pradesh, Meghalaya, West Bengal, Bihar
- D.Arunachal Pradesh, Sikkim, Bihar, Meghalaya

Answer & Solution

Answer: Option A

- **Solution:**
- Bhutan is surrounded by Assam, Arunachal Pradesh, West Bengal and Sikkim. Bhutan is located on the southern slopes of the eastern Himalayas, landlocked between the Tibet autonomous region to the north and the Indian states of Sikkim, West Bengal, Assam, and Arunachal Pradesh to the west and south.

Q) The largest States of India in the order of area are

- **A.Rajasthan, Madhya Pradesh, Maharashtra**
- **B.Madhya Pradesh, Rajasthan, Maharashtra**
- **C.Maharashtra, Rajasthan, Madhya Pradesh**
- **D.Madhya Pradesh, Maharashtra, Rajasthan**

- **Answer & Solution**

- **Answer: Option A**

- **Solution:**

- **The large States of India in the order of area are Rajasthan, Madhya Pradesh, Maharashtra. Rajasthan is a state in northern India. The state covers an area of 342,239 square kilometres (132,139 sq mi) or 10.4 percent of the total geographical area of India. Madhya Pradesh is a state in central India. Its total area is 308,252 km². Maharashtra is a state in the western peninsular region of India occupying a substantial portion of the Deccan plateau. It is the second-most populous state and third-largest state by area in India. Spreadover 307,713 km²(118,809 sq mi).**

Q) Which of the following tribes is not found in Central India ?

- A.Gonds
- B.Todas
- C.Bhils
- D.Munda

Answer & Solution

Answer: Option B

- **Solution:**
- Todas tribes is not found in Central India. Toda Tribe is the most ancient and unusual tribe of Nilgiri Hills of Tamil nadu. The todas have their own language

Q) Which states of India have a common border with Pakistan?

I. Jammu and Kashmir

II. Himachal Pradesh

III. Punjab

IV. Gujarat

V. Rajasthan

- A.I, II, III, V
- B.I, II, III, IV
- C.I, III, IV
- D.I, III, IV, V

- **Answer & Solution**

- **Answer: Option D**

- **Solution:**

- The states of India that have a common border with Pakistan are Jammu and Kashmir, Punjab, Gujarat and Rajasthan.

- **Which of the following Indian state does not have any coastal border?**
- A.Gujarat
- B.Goa
- C.Rajasthan
- D.Maharashtra
- **Answer & Solution**
- **Answer: Option C**
- **Solution:**
- Gujarat, Goa and Maharashtra all lies on western coast of India that is adjacent to Arabian sea whereas Rajasthan shares land border with Pakistan. Gujarat, Maharashtra, Goa, Kerala, Karnataka and Tamil Nadu are the six state that lies on western coast of India.

- **The capital of Lakshadweep is _____**
- A.Port Blair
- B.Silvassa
- C.Aizawl
- D.Kavaratti

Answer & Solution

- **Answer: Option D**
- **Solution:**
- Kavaratti is the capital of the union territory Lakshadweep in India. The Island of Kavaratti lies 360 Km of the coast of the State of Kerala at 10.57°N 72.64°E

- **Through which one of the following Indian states the Tropic of Cancer does not pass?**
- A.Manipur
- B.Tripura
- C.Gujarat
- D.Rajasthan

Answer & Solution

- **Answer: Option A**
- **Solution:**
- Tropic of cancer does not pass through Manipur. The tropic of cancer passes through 8 Indian states. They are Gujarat, Rajasthan, Madhya Pradesh, Chhattisgarh, West Bengal, Jharkhand, Tripura, and Mizoram



- **The latitudes that pass through Sikkim also pass through**
- A.Rajasthan
- B.Punjab
- C.Himachal Pradesh
- D.Jammu & Kashmir
- **Answer & Solution**
- **Answer: Option A**
- **Solution:**
- The latitude that pass through Sikkim also pass through Rajasthan. 27 degree latitude passes through Gangtok of Sikkim and Alwar in Rajasthan.

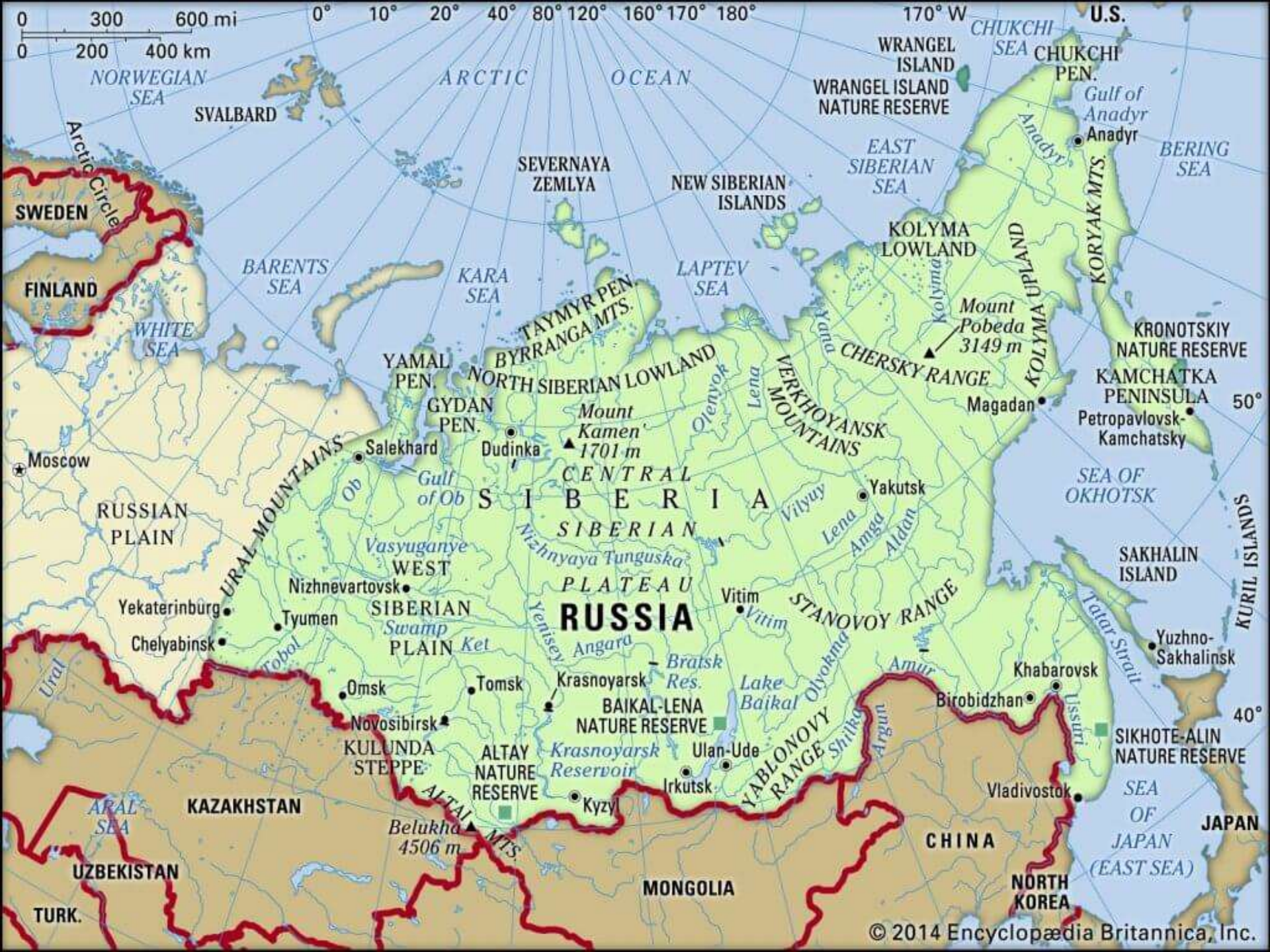
- Arrange the following states in increasing order of population:
 - Maharashtra
 - Uttar pradesh
 - Sikkim
-
- Answer
 - sikkim(least populous)<maharashtra<uttar pradesh(most populous)

ASIA

- there are seven continents on Earth which include Africa, Antarctica, Asia, Australia, Europe, North America, and South America. Each has its own unique intermingle of physical features such as mountains, deserts, plains, valleys, forests, and bodies of water. In all over world, Latitude, landforms, and nearness to bodies of water greatly affect climate. Landforms, soil, and climate significantly influence the plants and animals that can be found in each place.

ASIA







**Manchurian
Plain**

**NORTH
KOREA**

East Sea

**SOUTH
KOREA**

*Yellow
Sea*

**North
China
Plain**

JAPAN

Jeju Island

INDIA

CHINA

IRRAWADDY

• MOGOK

• SHWEBO

• MONYWA

• MINGUN

• SAGAING

• MANDALAY

• AMARAPURA

• PAKOKKU

• MYINGYAN

• BAGAN

• SALAY

MYANMAR

• MINBU

• MAGWAY

• MINHILA

• THAYET

• PYAY

THAILAND

BAY OF
BENGAL

• YANGON

IRRAWADDY



Asia Mountains

Arctic Ocean



Bering Sea

Europe

Ural Mountains

Northern Lowlands

Japan

Plateau of Mongolia

Japan Sea

Pacific Ocean

Taiwan

Philippines

Singapore

Indian Ocean

Not to Scale

LEGEND

Low lands

Plateaus

Mountains & Plateaus

Main mountain ranges

Pontine Taurus

Armenian Knot

Elburz

Iran Plateau

Zagros

Sulaiman

Hindukush

Pamir Knot

Karakoram

Himalayas

Tien shan

Altai Mts

Kunlun

Andaman & Nicobar (India)

Sri Lanka

Lakshadweep (India)

Arabian Sea

Bay of Bengal

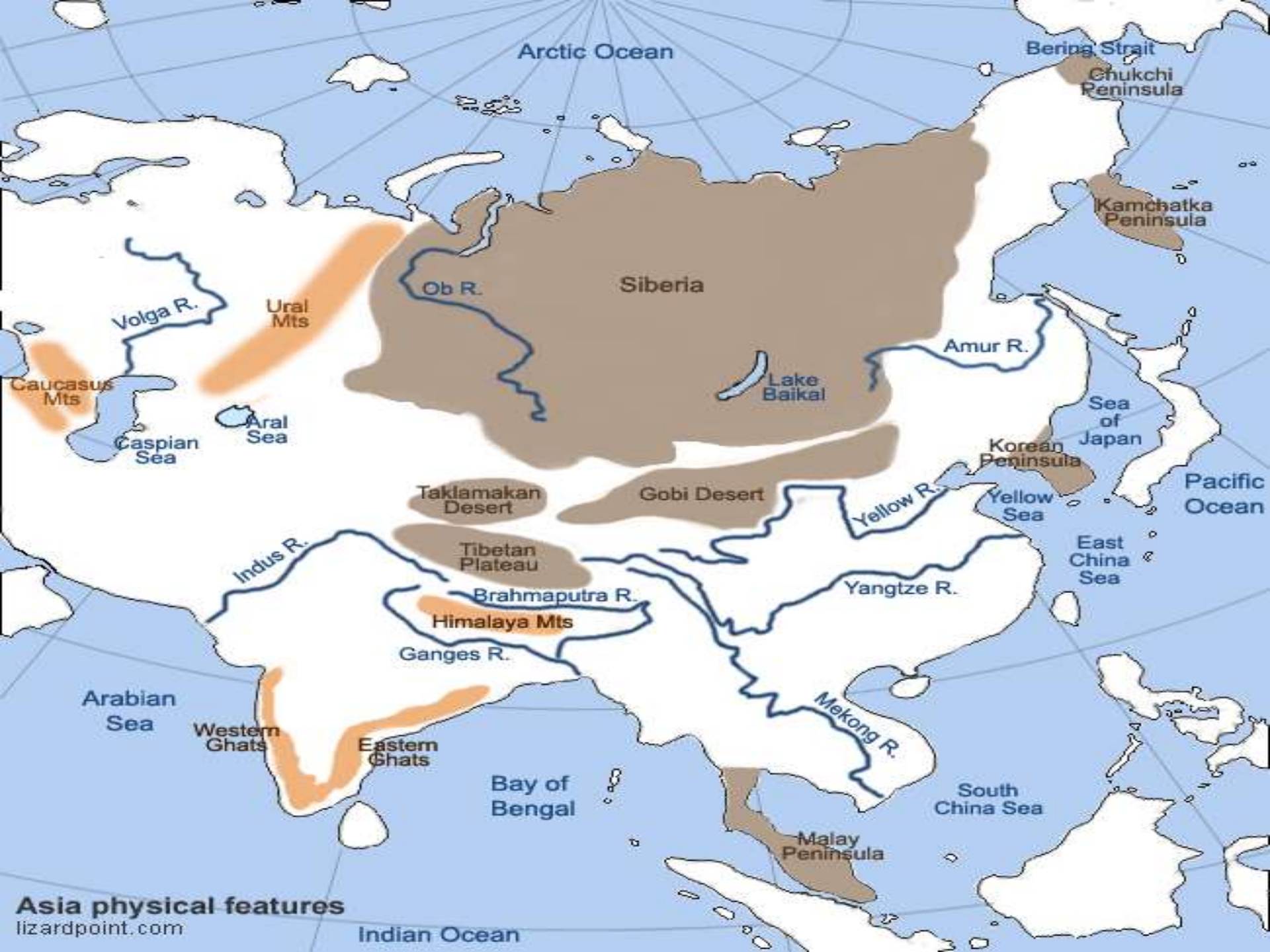
Black sea

Caspian sea

Yellow Sea

Africa





Arctic Ocean

Bering Strait
Chukchi Peninsula

Kamchatka Peninsula

Siberia

Ob R.

Lake Baikal

Amur R.

Volga R.

Ural Mts

Aral Sea

Caspian Sea

Caucasus Mts

Korean Peninsula

Sea of Japan

Pacific Ocean

Yellow Sea

East China Sea

Yellow R.

Yangtze R.

Mekong R.

South China Sea

Malay Peninsula

Bay of Bengal

Eastern Ghats

Western Ghats

Ganges R.

Himalaya Mts

Brahmaputra R.

Tibetan Plateau

Taklamakan Desert

Gobi Desert

Arabian Sea

Indian Ocean

Asia physical features

lizardpoint.com

- **Asia is the world largest continent**, having an area of 44,444,100 sq km.
- It covers 8.8% of the Earth's total surface area with a population of 4.4 billion which is 60 % of the world's total population.
- It is a continent of contrast in relief, temperature, vegetation and people also.
- Asia is to the **east of the Suez Canal, the Ural River, and the Ural Mountains, and south of the Caucasus Mountains and the Caspian and Black Seas.**

- It is bounded on the **east by the Pacific Ocean**, on the **south by the Indian Ocean** and on the **north by the Arctic Ocean**.
- The earth's highest and lowest places are both in Asia:
- The highest place on earth: **Mount Everest**
- The lowest place on earth: **Dead Seashore**

- Regional Divisions of Asia
- **Asia can be divided into six physiographic divisions:**
- **Central Asia:** Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan
- **Eastern Asia:** China, Hong Kong, Japan, North Korea, South Korea, Macau, Mongolia, Taiwan
- **Northern Asia:** Russia
- **South-eastern Asia:** Brunei, Myanmar, Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, Timor-Leste, Vietnam.
- **Southern Asia:** Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka.
- **Western Asia:** Armenia, Azerbaijan, Bahrain, Cyprus, Georgia, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, State of Palestine, Qatar, Saudi Arabia, Syria, Turkey, United Arab Emirates, Yemen.

- Major Physical Divisions of Asia
- The Northern Lowlands
- The Central Mountains
- The Central and Southern Plateaus
- The Peninsulas
- Deserts
- The Great River Plains
- Island Groups

- 1. The Northern Lowlands
- The Northern Lowlands are the **extensive plain areas** that comprise of several patches of lowlands of this large continent.
- **The major lowlands are:**
- **Great Siberian plain**
- **It extends between the Ural Mountains in the west and the river Lena in the east. It is the largest lowland in the world** covering an area of 1,200,000 square miles approx.

- **Manchurian Plain**
- **It is the area adjoining Amur river and its tributaries of the northern part of China**
- **Great Plains of China**
- **It is contributed by two major rivers of China, Hwang Ho and Yangtze river**
- **Tigris-Euphrates plains**
- **Ganga plains**
- **Irrawaddy plains**

- 2. The Central Mountains
- These are the prominent and extensive mountain ranges that cover the parts of Central Asia.
- They consist of **Pamir and Tian Shan ranges** and extending across portions of Afghanistan, China, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan.
- These mountain ranges are designated as biodiversity hot spots by Conservation International which covers several montanes and alpine ecoregions of Central Asia

- A **mountain knot** is a **junction of two or more mountain ranges**. The two main mountain knots in Asia are: The **Pamir Knot is the junction of five mountain ranges** they are the Sulaiman, the Hindu Kush, the Kunlun, the Karakoram, and the Himalayan ranges. Mount Everest, the highest peak in the world in the Himalayan range.
- The **Armenian Knot is connected to the Pamir Knot by the Elburz and the Zagros Ranges** that originate in the Armenian Knot. The Tien Shan and the Altai are other mountain ranges in Asia

- **Peaks of Asia**

- Mount Everest (8848 m), Nepal-Tibet, China border
- K2 (8,611 m), Pakistan-China
- Kangchenjunga (8,586 m), Nepal-Sikkim (India).
- Lhotse (8,516 m), Nepal-Tibet, China
- Makalu (8,462 m), Nepal-Tibet, China
- Cho Oyu (8,201 m), Nepal

- 3. The Central and Southern Plateaus
- Plateaus are the land areas having a relatively that surface considerably raised above adjoining land on at least one side, and often cut by deep canyon.

Major Plateaus of Asian Continent –

- Ladakh
- Tibet
- Yunan
- Pamir
- Armenian
- Mongolian
- Shan
- Deccan
- Anatolian

- A peninsula is a mass of land surrounded by water but attached to the mainland.
The **Deccan plateau region** is also a peninsula.
The major **peninsulas of Arabia, India, and Malay** are in southern Asia. The **Kamchatka peninsula** lies in northeastern Asia

- 5. Deserts
- Asia has some big deserts such as the **Gobi**, the **Takla Makan**, the **Thar**, the **Kara-Kum**, and the **Rub-al-Khali** Deserts.
- The **Rub' al Khali desert**, considered the **world's largest sand sea**, covers an area larger than France across Saudi Arabia, Oman, the United Arab Emirates, and Yemen.

- 6. (a) Islands of Asia
- Asia also has a **cluster of islands, also called an archipelago**. An archipelago sometimes called an island group or island chain, which is formed close to each other in large clusters. **Indonesia, Philippines, Japan, Andaman, and Nicobar** are some examples of archipelagos.
- (Archipelago definition, a large group or chain of islands)

- **Seas:**
- As the continent is covered by sea from its three sides, It has also characterized by the long stretch of bay and gulf.
- Major seas contributing to Asian Drainage are **Andaman Sea, Arabian Sea, Banda Sea, Barents Sea, Bering Sea, Black Sea, Caspian Sea, East Siberian Sea, Java Sea, Kara Sea, Laccadive Sea, Sea of Japan, Sea of Okhotsk. The South China Sea and the Yellow Sea.**

- 6. (b) Drainage of Asia
- The drainage of Asia consists of mighty oceans, extensive seas, lengthy rivers, and their tributaries and distributaries, major lakes, etc.
- **Oceans:** Asian continent is surrounded by three major ocean from three sides such as
- The Pacific Ocean – It covers the eastern part of Asia where major rivers of eastern Asia drain, such as Menam Mekong, Xi Jiang, Chang Xiang, Huang Ho, and Amur.
- The Indian Ocean – It covers the southern part of Asia and the major rivers that flow into the Indian Ocean are Tigris, Euprates, the Indus, the Ganga, Brahmaputra, Irrawaddy, Salween.
- The Arctic Ocean – It covers the North east part of Asia and consists of three major rivers such as Ob, Yenisey, and Lena.

- **Lakes:**
- Major lakes of Asia are
- Lake Baikal, Onega, Ladoga, and Peipus in **Russia**;
- Lake Akan, Mashu, Biwa, Shikotsu in **Japan**;
- Qinghai Lake, Lake Khanka in **China**;
- Dal Lake, Chilka, Vembanada, Pullicat and Sukhna in **India**;
- Lake Matano and Toba in **Indonesia**, etc.
- ***Baikal is the deepest lake in the world. It is in Southern Siberia, Russia.***

- Freshwater
- **Lake Baikal, located in southern Russia, is the deepest lake in the world, reaching a depth of 1,620 meters (5,315 feet). The lake contains 20 percent of the world's unfrozen fresh water, making it the largest reservoir on Earth.** It is also the world's oldest lake, at 25 million years old.

- **The Yangtze is the longest river in Asia and the third-longest in the world (behind the Amazon of South America and the Nile of Africa).** Reaching 6,300 kilometers (3,915 miles) in length, the Yangtze moves east from the glaciers of the Tibetan Plateau to the river's mouth on the East China Sea. **The Yangtze is considered the lifeblood of China.**

- **The Tigris and Euphrates Rivers begin in the highlands of eastern Turkey and flow through Syria and Iraq, joining in the city of Qurna, Iraq, before emptying into the Persian Gulf. The land between the two rivers, known as Mesopotamia, was the center of the earliest civilizations, including Sumer and the Akkadian Empire.**

- Saltwater
- **The Persian Gulf** has an area of more than 234,000 square kilometers (90,000 square miles). It borders Iran, Oman, United Arab Emirates, Saudi Arabia, Qatar, Bahrain, Kuwait, and Iraq. **The gulf is subject to high rates of evaporation, making it shallow and extremely salty.**

- **The Sea of Okhotsk** covers 1.5 million square kilometers (611,000 square miles) between the Russian mainland and the Kamchatka Peninsula.
- **The Bay of Bengal** is the largest bay in the world, covering almost 2.2 million square kilometers (839,000 square miles) and bordering Bangladesh, India, Sri Lanka, and Burma. Many large rivers, including the Ganges and Brahmaputra, empty into the bay

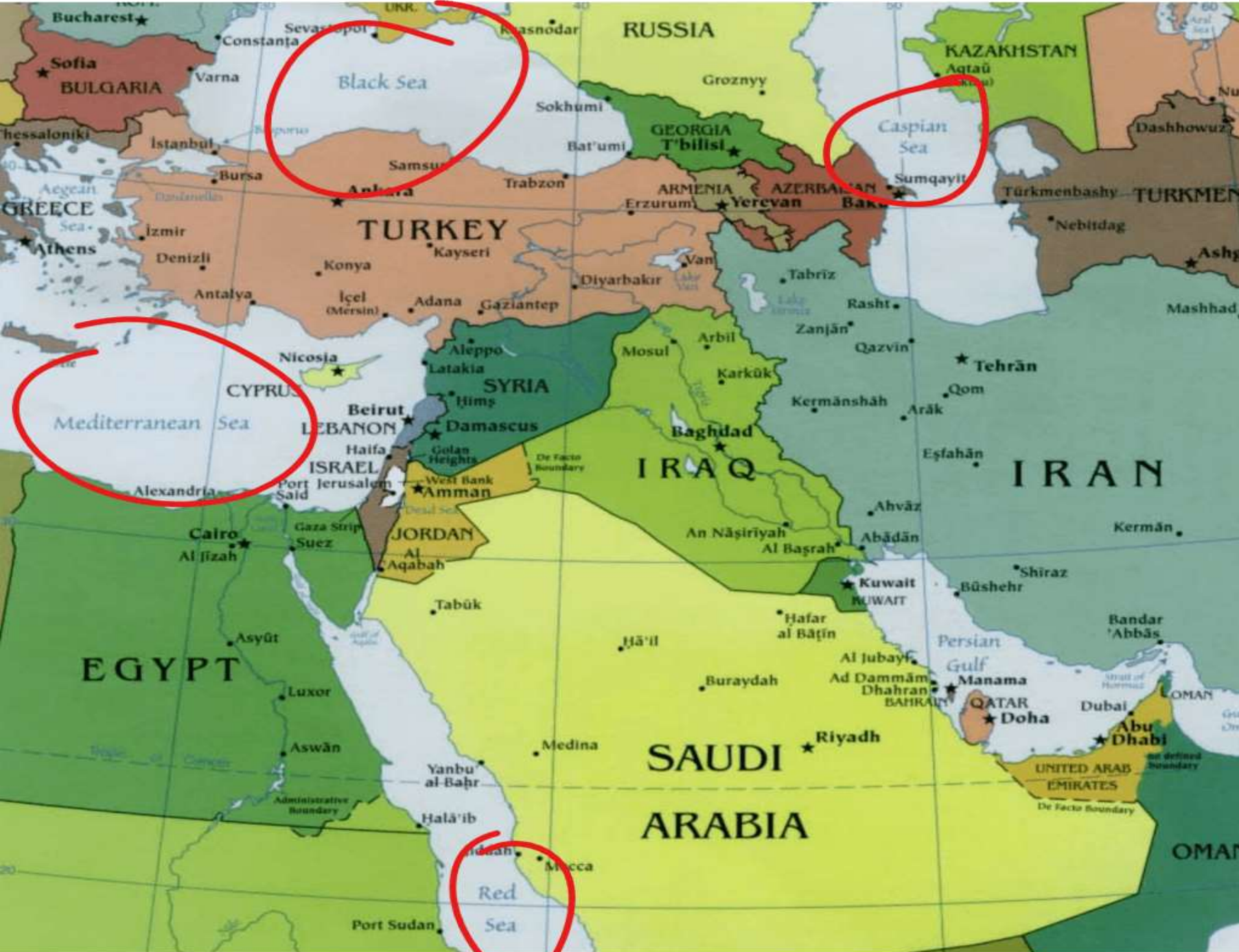
- **Straits:**

- The important straits in Asia are the **Strait of Malacca, Bering Strait**, etc.

- **Longest Straits:** Strait of Malacca (800 km) connects the Andaman Sea with the South China Sea (Pacific Ocean).
- **Narrowest Strait:** Strait of Bosphorus connecting the Black Sea with the Marmara Sea.
- **Bering Strait:** separates Asia from America.
- **Bass Strait:** separates Australia from Tasmania.
- **Gibraltar Strait:** Separates Africa from Europe.

- Mining:
- **China, India, Russia, and Indonesia are the continent's most productive mining economies.** These countries extract many of the same minerals.
- **China is the world's largest producer of aluminum, gold, tin, and coal.**
- **India is also a major producer of aluminum and iron ore, along with other minerals such as barite (used in drilling fluids), chromium (used in steel production and dyes), and manganese (used in steel production).**
- **Russia is a major producer of coal, tungsten (used in steel production), diamonds, iron, and steel.**
- **Indonesia is a major producer of coal, gold, copper, and tin.**

- **Q2. Which of these water bodies witnesses sun rise at the earliest?**
- a) Red Sea
- b) Black Sea
- c) Caspian Sea
- d) Mediterranean Sea
- **Solution: c)**
- *Caspian sea lies the easternmost among all of the options. Black Sea lies to the west of Caspian Sea.*



- **Q3. The Red Sea is a strip of water and an inlet of the Indian Ocean occupying the area separating the continent of Africa from Asia. The countries bordering the Red Sea are –**
- Saudi Arabia
- Yemen
- Ethiopia
- Egypt
- Djibouti
- Select the correct answer code:
- a) 1, 2, 3, 4
- b) 1, 2, 3, 5
- c) 2, 3, 4, 5
- d) 1, 2, 4, 5
- **Solution: d)**
- *The six countries that border the Red Sea are the following: Saudi Arabia, Yemen, Egypt, Sudan, Eritrea, and Djibouti.*



EUROPE

- Europe is the second smallest continent, the smallest being Australia. Its area, including the islands around the coast, is about 10 million square kilometers.
- A large part lies in the temperate zone as it stretches from 35°N to 80°N latitude.
- Longitudinally, it stretches from 10°W to 60°E
- The Prime Meridian passes through London.

- **Boundaries of Europe**

- **To the east, it is separated from Asia by the Ural Mountain, Caspian Sea, Caucasus Mountain, and the Black Sea.**
- **To the south is the Mediterranean Sea. The Aegean Sea and the Adriatic Sea are two of its branches.**
- **To the west is the Strait of Gibraltar separating Europe from Africa and joining the Mediterranean to the Atlantic Ocean. The Bay of Biscay, the English Channel, and the North Sea are parts of the Atlantic Ocean.**

- **Baltic Sea with two branches – Gulf of Bothnia and the Gulf of Finland is an inlet in the north. The Arctic Ocean to the north has a bay called the White Sea.**
- **The peninsula of Greece, known as the Balkan Peninsula and Italy extends into the Mediterranean Sea.**
- **In the south-west is the Iberian Peninsula which is made up of Spain and Portugal.**
- **In the north-west is the Scandinavian, Peninsula consisting of Norway and Sweden.**

COUNTRIES CAPITAL AND CURRENCY

S.No.	Name	Capital	Currency	Official language
1	Aland Islands	Mariehamn	Euro	Swedish
2	Albania	Tirana	Lek	Albanian
3	Andorra	Andorra la Vella	Euro	Catalan
4	Austria	Vienna	Euro	German
5	Belarus	Minsk	Belarusian Ruble	Belarusian, Russian
6	Belgium	Brussels	Euro	Dutch, French, German
7	Bosnia and Herzegovina	Sarajevo	Convertible mark	Bosnian, Croatian, Serbian
8	Bulgaria	Sofia	Lev	Bulgarian
9	Croatia	Zagreb	Kuna	Croatian
10	Czech Republic	Prague	Czech koruna	Czech
11	Denmark	Copenhagen	Danish krone[a]	Danish
12	Estonia	Tallinn	Euro	Estonian

13	Faroe Islands	Tórshavn	Faroese króna	Faroese, Danish
14	Finland	Helsinki	Euro	Finnish, Swedish
15	France	Paris	Euro	French
16	Germany	Berlin	Euro	German
17	Gibraltar	Gibraltar	Gibraltar Pound	English
18	Greece	Athens	Euro	Greek
19	Guernsey	Saint Peter Port	Pound sterling	English, French
20	Hungary	Budapest	Forint	Hungarian
21	Iceland	Reykjavík	Icelandic króna	Icelandic
22	Ireland	Dublin	Euro	English, Irish
23	Isle of Man	Douglas	Pound sterling	English, Manx
24	Italy	Rome	Euro	Italian
25	Jersey	Saint Helier	Pound sterling	English, French

26	Kosovo	Pristina	Euro	Albanian, Serbian
27	Latvia	Ryga	Euro	Latvian
28	Liechtenstein	Vaduz	Swiss franc	German
29	Lithuania	Vilnius	Euro	Lithuanian
30	Luxembourg		Luxembourgish, French, German	luxemburg franc now replaced by euro
31	Macedonia	Skopje	Macedonian Denar	Macedonian
32	Malta	Valletta	Euro	Maltese, English
33	Moldova	Chişinău	Moldovan Leu	Moldovan
34	Monaco	Monaco	Euro	French
35	Montenegro	Podgorica	Euro	Montenegrin
36	Netherlands	Amsterdam	Euro	Dutch
37	Norway	Oslo	Norwegian krone	Norwegian, Bokmal, Nynorsk
38	Poland	Warsaw	Zloty	Polish

39	Portugal	Lisbon	Euro	Portuguese
40	Romania	Bucharest	Romanian Leu	Romanian
41	Russia	Moscow	Russian Ruble	Russian
42	San Marino	San Marino	Euro	Italian
43	Serbia	Belgrade	Serbian dinar	Serbian
44	Slovakia	Bratislava	Euro	Slovak
45	Slovenia	Ljubljana	Euro	Slovene
46	Spain	Madrid	Euro	Spanish, Catalan, Galician, Basque
47	Svalbard	Longyearbyen	Norwegian krone	Norwegian
48	Sweden	Stockholm	Swedish krona	Swedish
49	Switzerland	Bern	Swiss franc	German, French, Italian, Romansh
50	Transnistria	Tiraspol	Transnistrian ruble	Russian, Moldovan, Ukrainian
51	Ukraine	Kiev	Ukrainian hryvnia	Ukrainian
52	United Kingdom	London	Pound sterling	English

53	Vatican City	Vatican City	Euro	Italian
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Physical divisions of europe

- Physical Divisions of Europe
- Western Upland
- North European Plain
- Central Uplands or Plateau
- Alpine Mountain Systems
- Islands of Europe
- Drainage Pattern
- Gulfs and Bays

- **Western Upland**
- It is also known as the Northern Highlands, delineate the western edge of Europe and define the physical landscape of Scandinavia (Norway, Sweden, and Denmark), Finland, Iceland, Scotland, Ireland, the Brittany region of France, Spain, and Portugal.

- **North European Plain**
- It covers all most half of Europe. Bordered by Baltican White sea from north and Black and Azov from the south the plain is gradually narrowed down towards the west.
- **Central Uplands or Plateau**
- It extends from Belgium in the East to France in the West and from the Czech Republic and south Germany in south to Switzerland and Austria in the North.

Alpine Mountain Systems

- These are located in south-central Europe, immediately north of the Mediterranean Sea.
- They extend for almost 700 miles in a crescent shape from the coastline of southern France (near Monaco) into Switzerland, then through northern Italy and into Austria, and down through Slovenia, Croatia, Bosnia and Herzegovina, Serbia and Montenegro – then ending in Albania on the rugged coastline of the Adriatic Sea.
- The highest point is **Mont Blanc** at 15,771 ft. (4,807m).

- ***Mountains –***

- **The Ural Mountains:**

- These mountains separate Asia from Europe in the east

- **The Scandinavian Mountains:**

- Scandinavia consists of Norway, Sweden, and Denmark.

- ***The Old Mountain Blocks –***

- In the west, the Meseta of Spain, the Central Plateau of France, the Brittany Peninsula, the Rhine Upland, the Black Forest, Vosges, Bohemian Plateau, and Rhodope Mt, etc, are examples of these old mountains.

- **The Alpine Mountain Ranges:**

- The highest peak is (Mount Blanc 5,000 m).
- The mountain range runs in many branches.
- The main ones are the Alps, the Carpathians, the Balkans, the Caucasus, etc.
- Another branch is the Apennines (Italy, the Atlas (Africa and the Sierra Nevada Spain).
- Still another branch is the Dinaric and the Pindus mountain (Yugoslavia and Greece) and enters through the Crete island into Asia.
- **The Pyrenees:**
- The Pyrenees are half as **Long** and broad as the **Alps** and separate broadly France from Spain.
- The highest peak is Pico de Aneto (3,404 m).

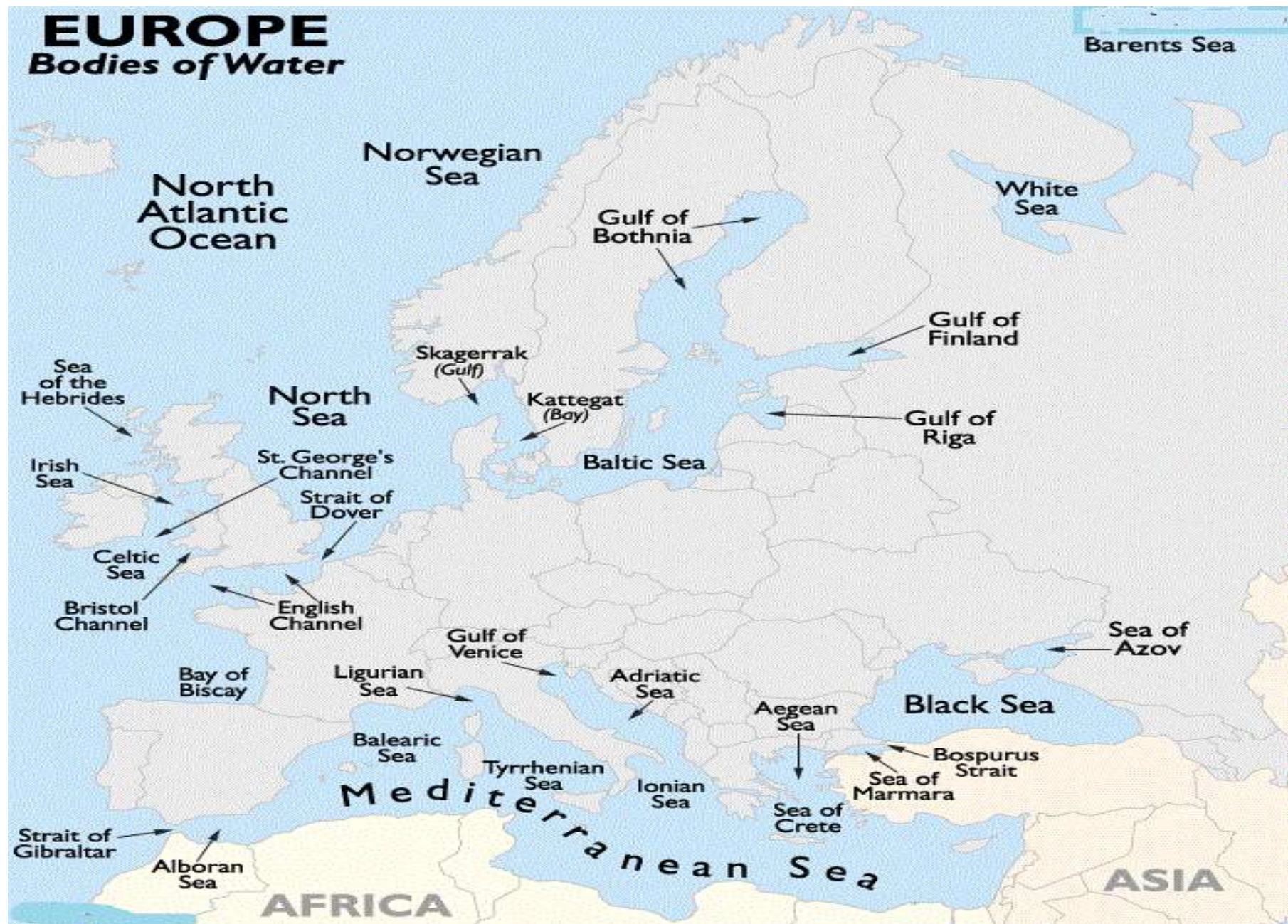
Islands of Europe

- As surrounded by a number of seas from all sides, Europe is an island rich continent. The **British Isles** is the largest and the most important group of islands consisting of England, Scotland, and Ireland.
- **The Rhine** starts from the Alps in Switzerland and flows northwards through Germany and enters the sea through Holland. It passes through heavily industrialized regions and is used for transporting heavy goods. It is the busiest waterway in Europe. Rotterdam, the largest port of Europe, is on its delta.

- **The Danube** is also an international river. It rises from the Alps in Germany and flows through Austria, Hungary, Serbia, and enters the Black Sea in Romania. It is not as important as the Rhine for international trade because of the Black Sea in the interior.

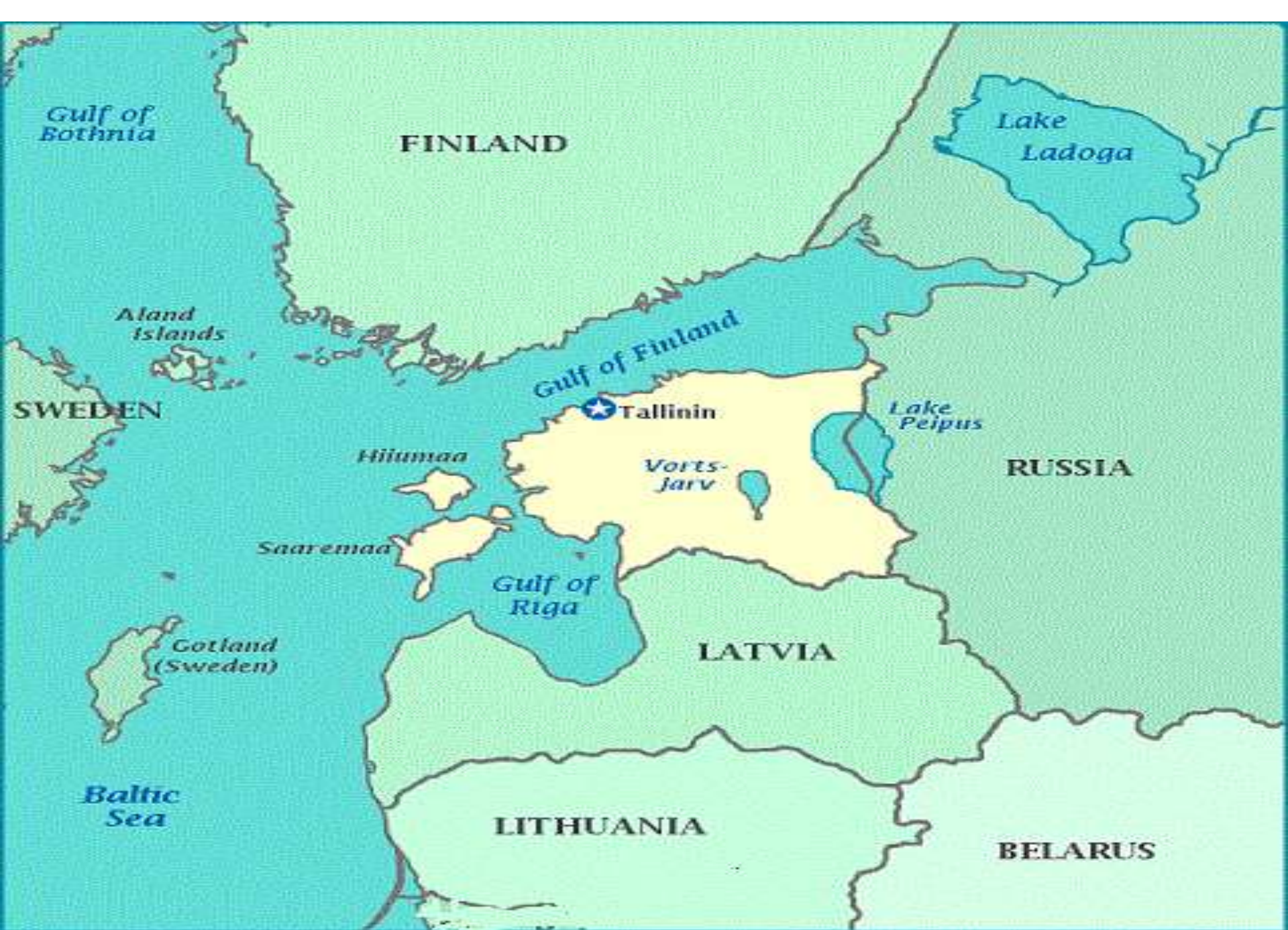
EUROPE

Bodies of Water



GULFS

- **The Gulf of Finland**
- **The Gulf of Bothnia**
- **The Gulf of Riga**
- **The Gulf of Lions**



KNOWLEDGE CHECK

- **Which of the following group of countries together called 'Scandinavia'?**
- A. Spain and Portugal
- B. Norway, Sweden, Iceland and Denmark
- C. Yugoslavia, Greece, Romania and Albania
- D. Lithuania, Latvia and Estonia
- **Ans: B**
- **Explanation:** Norway, Sweden, Iceland and Denmark are together called 'Scandinavia'. Hence, B is the correct option.

- **Which of the following separated Europe from Asia?**
- A. Caspian Sea and Atlantic Ocean
- B. Caspian Sea and Mediterranean Sea
- C. Caspian Sea and Ural mountains
- D. Atlantic Ocean and Mediterranean Sea
- **Ans: C**
- **Explanation:** Europe is separated from Asia by Caspian Sea and Ural mountains. Hence, C is the correct option.

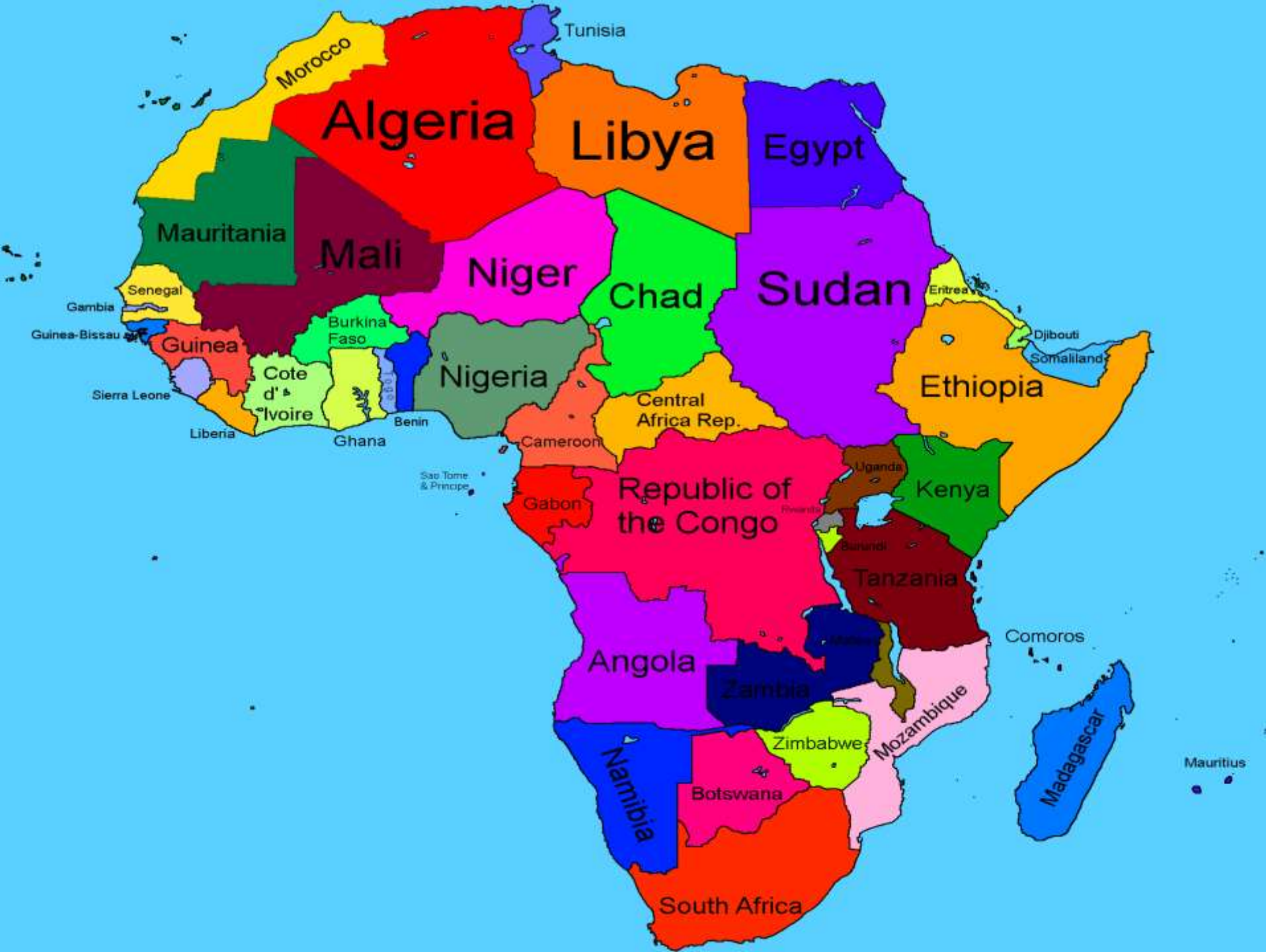
- **Which of the following group of countries together called 'Iberia'?**
- A. Spain and Portugal
- B. Norway, Sweden, Iceland and Denmark
- C. Yugoslavia, Greece, Romania and Albania
- D. Lithuania, Latvia and Estonia
- **Ans: A**
- **Explanation:** Spain and Portugal are together called Iberia. Hence, A is the correct option.

- **Which of the following group of countries together called 'Balkan States'?**
- A. Spain and Portugal
- B. Norway, Sweden, Iceland and Denmark
- C. Yugoslavia, Greece, Romania and Albania
- D. Lithuania, Latvia and Estonia
- **Ans: C**
- **Explanation:** Yugoslavia, Greece, Romania and Albania, situated on the coast of Black Sea and Mediterranean Sea are called 'Balkan states'. Hence, C is the correct option.

- **Which of the following group of countries together called 'Baltic States'?**
- A. England and Ireland
- B. Norway, Sweden, Iceland and Denmark
- C. Yugoslavia, Greece, Romania and Albania
- D. Lithuania, Latvia and Estonia
- **Ans: D**
- **Explanation:** Lithuania, Latvia and Estonia are together called 'Baltic states'. Hence, D is the correct option.

Africa

- **Africa is the second largest continent in the area (30,330,000 sq Km) which covers 6% of Earth's total surface area and 20.4 % of its total land area.**
- **Algeria is Africa's largest country by area, and Nigeria by population.**
- **Separated from Europe by the Mediterranean Sea, it is joined with Asia at its northeast extreme end by the Isthmus of Suez 163 Km wide.**
- **It is bounded by the Red Sea along the Sinai Peninsula to the northeast, the Indian Ocean to the southeast, and the Atlantic Ocean to the west.**
- **It has fully recognized 54 sovereign states.**



Algeria	Guinea	Morocco
Angola	Guinea-Bissau	Mozambique
Benin	Kenya	Namibia
Botswana	Lesotho	Niger
Burkina Faso	Liberia	Nigeria
Burundi	Libya	Rwanda
Cameroon	Madagascar	Sao Tome and Principe
Cape Verde	Malawi	Senegal
Central African Republic	Mali	Seychelles
Chad	Mauritania	Sierra Leone
Comoros	Mauritius	Somalia
Congo	Morocco	South Africa
Democratic Republic of the Congo	Mozambique	Sudan (North)
Cote d'Ivoire	Namibia	South Sudan (Rep.)
Djibouti	Niger	Swaziland
Egypt	Nigeria	Tanzania
Equatorial Guinea	Sao Tome and Principe	Togo
Eritrea	Senegal	Tunisia
Ethiopia	Seychelles	Uganda
Gabon	Sierra Leone	Zambia
Gambia	Mauritania	Zimbabwe
Ghana	Mauritius	

African Countries	Capitals	Currency	Languages
Algeria	Algiers	Algerian dinar (DZD)	Arabic
Angola	Luanda	Kwanza(AOA)	Portuguese
Benin	Porto-Novo	West African CFA franc (XOF)	French
Botswana	Gaborone	Pula(BWP)	English,Setswana
Burkina Faso	Ouagadougou	West African CFA franc(XOF)	French
Burundi	Bujumbura	Burundian franc(BIF)	Kirundi,French
Cabo Verde	Praia	Cape Verdean escudo(CVE)	Portuguese
Cameroon	Yaounde	Central AfricanCFA franc(XAF)	French,English

Central African Republic	Bangui	Central African CFA franc (XAF)	French,Sango
Chad	N'Djamena	Central African CFA franc(XAF)	French,Arabic
Comoros	Moroni	Comorian franc(KMF)	Comorian,Arabic,French
Democratic Republic of the Congo	Kinshasa	Congolese franc(CDF)	French
Republic of the Congo	Brazzaville	Central African CFA franc (XAF)	French
Cote d'Ivoire	Yamoussoukro	West African CFA franc(XOF)	French
Djibouti	Djibouti (city)	Djiboutian franc(DJF)	French,Arabic
Egypt	Cairo	Egyptian pound(EGP)	Arabic
Equatorial Guinea	Malabo (de jure),	Central African CFA franc (XAF)	Spanish,French,Portuguese

Equatorial Guinea	Malabo (de jure), Oyala (seat of government)	Central African CFA franc (XAF)	Spanish,French,Portuguese
Eritrea	Asmara	Eritrean nakfa (ERN)	Tigrinya,Arabic,English
Eswatini (formerly Swaziland)	Eswatini (formerly Swaziland) Mbabane (administrative), Lobamba (legislative, royal)		
Ethiopia	Addis Ababa	Ethiopian birr (ETB)	Amharic
Gabon	Libreville	Central African CFA franc (XAF)	French
Gambia	Banjul	Gambian dalasi (GMD)	English

Ghana	Accra	Ghana cedi (GHS)	English
Guinea	Conakry	Guinean franc(GNF)	French
Guinea-Bissau	Bissau	West African CFA franc(XOF)	Portuguese
Kenya	Nairobi	Kenyan shilling(KES)	Swahili,English
Lesotho	Maseru	Lesotho loti(LSL)	English,Sesotho
Liberia	Monrovia	Liberian dollara(LRD)	English
Libya	Tripoli	Libyan dinar (LYD)	Arabic
Madagascar	Antananarivo	Malagasy ariary(MGA)	Malagasy,French
Malawi	Lilongwe	Kwacha(D) (MWK)	English,Chichewa
Mali	Bamako	West African CFA franc	French

Mali	Bamako	West African CFA franc (XOF)	French
Mauritania	Nouakchott	Ouguiya(MRO)	Arabic
Mauritius	Port Louis	Mauritian rupee(MUR)	Mauritian Creole,French,English
Morocco	Rabat	Moroccan dirham(MAD)	Arabic,Berber
Mozambique	Maputo	Mozambican metical(MZN)	Portuguese
Namibia	Windhoek	Namibian dollar(NAD)	English
Niger	Niamey	West African CFA franc(XOF)	French
Nigeria	Abuja	Naira (NGN)	English
Rwanda	Kigali	Rwandan franc(RWF)	Kinyarwanda,English, French
Sao Tome and Principe	São Tomé	Dobra(STD)	Portuguese

Senegal	Dakar	CFA franc(XOF)	French
Seychelles	Victoria	Seychellois rupee(SCR)	Seychellois Creole, French,English
Sierra Leone	Freetown	Leone(SLL)	English
Somalia	Mogadishu	Somali shilling(SOS)	Somali,Arabic
South Africa	Pretoria (administrative), Cape Town (legislative), Bloemfontein (judicial)	South African rand(ZAR)	Afrikaans English SouthernNdebele Northern Sotho Southern Sotho Swazi Tsonga Tswana Venda Xhosa Zulu
South Sudan	Juba	South Sudanese pound(SSP)	English
Sudan	Khartoum	Sudanese pound(SDG)	Arabic,English

Tanzania	Dodoma	Tanzanian shilling(TZS)	Swahili,English
Togo	Lomé	CFA franc(XOF)	French
Tunisia	Tunis	Tunisian dinar(TND)	Arabic
Uganda	Kampala	Ugandan shilling(UGX)	Swahili,English,Luganda
Zambia	Lusaka	Zambian kwacha(ZMW)	English
Zimbabwe	Harare	(United States Dollar, Euro, Botswana pula, Pound sterling, South African rand)	English,Shona,Sindebele

*. Swaziland **(Country)** – Mbabane (administrative), **(Capital)** – Lobamba (royal and legislative) **(Currency)** – South African randSwazi lilangeni (SZL) English, Swati **(Languages)**

*. Somaliland **(Country)** – Hargeisa **(Capital)** – Somaliland shillinga (SLSH) **(Currency)** – includes Somali,Arabic **(Languages)**

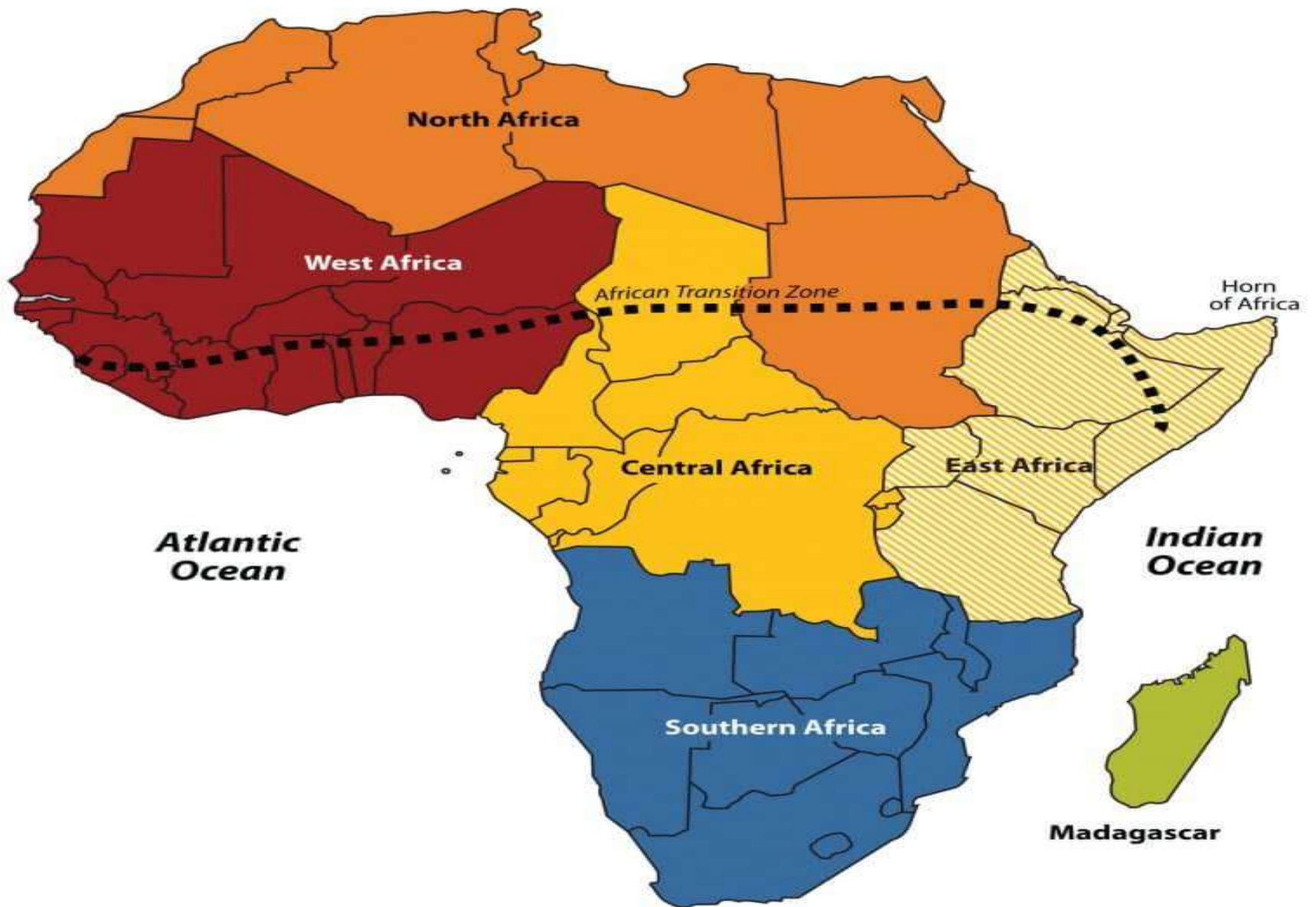
*. Saint Helena, Ascension and Tristan da Cunha (**Country**) - Jamestown (Saint Helena), Georgetown (Ascension Island), Edinburgh of the Seven Seas (Tristan da Cunha) (**Capital**) - Saint Helena pound, Pound sterling (**Currency**) - English (**Languages**)

*. Réunion (**Country**) - Saint-Denis - Euro (**Currency**) - French (**Language**)

*. Mayotte (**Country**) - Mamoudzou, Overseas department of France (**Currency**) Euro (EUR) (**Currency**) - French (**Language**)

Regional divisions of Africa

- The physiographic divisions of Africa are into the following six regions:
- Northern Africa
- Northeast Africa
- Eastern Africa
- Central Africa
- Southern Africa
- Western Africa



- **Northern Africa**
- It extends from Algeria in the north, through, the Canary Islands, Santa Cruz de Tenerife, Ceuta, Egypt, Libya, Madeira, Melilla, Morocco, Sudan and Tunisia, It reaches up to Western Sahara.
- **Northeast Africa**
- It is also called the horn of Africa which extends several hundred kilometers into the Arabian Sea and lies along the southern side of the Gulf of Aden. It contains countries such as Djibouti, Eritrea, Ethiopia, and Somalia.
- **Eastern Africa**
- The extensive area stretches from the Red Sea and the Horn of Africa to Mozambique including Burundi, Comoros, Kenya, Madagascar, Malawi, Mauritius, Mayotte, Mozambique, Réunion, Rwanda, Seychelles, South Sudan, Tanzania, Uganda, Zambia, Zimbabwe.

- **Central Africa**

- It is the large landmass situated exactly in the middle of the continent covering Angola, Cameroon, Central African Republic, Chad, Republic of the Congo, Democratic Republic of the Congo, Equatorial Guinea, Gabon, São Tomé and Príncipe.

- **Southern Africa**

- It is the southern most part of the continent and covers the countries such as Botswana, Lesotho, Namibia, South Africa, and Swaziland.

- **Western Africa**

- It is situated roughly at 100° E longitude covering countries like Benin, Burkina Faso, Cape Verde, Gambia, Guinea, Guinea-Bissau, Ivory Coast, Liberia, Mali, Mauritania, Niger, Nigeria, Saint Helena, Senegal, Sierra Leone, and Togo.

Major Physical Divisions of Africa

- **The major physical divisions of African continent are:**
- **The Plateau**
- **The Fold Mountains**
- **Deserts**
- **Rivers**
- **Islands**

- The Plateaus

- The vast African continents are famous for its saucer-shaped and steep edged plateaus that are facing towards the coast and extending from Guinea coast to Somali Land and north Sahara to the Cape Province. These are divided into three groups:
 - **South African plateau –**
 - **East African plateau –**
 - **Ethiopian Highlands –**

- ***Plateaus*** –
- Katanga Plateau Farming, ranching, resource-rich – copper and Uranium deposits
- Ethiopian Plateau Lake Tana (Source of Blue Nile), cooler despite close to the equator
- Bie Plateau Important for copper, Agriculture and cattle rearing
- Adamawa Plateau Savannah vegetation, Bauxite deposits

- **Mountains**

- Africa is famous for its newly formed folded mountains.
- **Atlas Mountains**
- It is situated on the northwestern part of the continent stretching over an area of 2400 km towards the southwest direction across Morocco, Algeria, and Tunisia.
- It is a physical separator between the extensive coasts of the Mediterranean and the Atlantic Sea and the Sahara Desert.

- **Ruwenzori Mountains**
- **Mount Elgon**
- **Tibesti Mountains**
- **Ahaggar mountains**
- **The Drakensberg**
- **Mount Kenya**
- **Kilimanjaro**

- Kilimanjaro with its three volcanic cones, Kibo, Mawensi, and Shira, is an inactive stratovolcano in north-eastern Tanzania.
- Kilimanjaro is the tallest free-standing mountain rise in the world rising 4,600 m (15,100 ft) from its base and includes the highest peak in Africa at 5,895 meters (19,340 ft).

- **The Sahara**, the largest hot desert in the world, stretches across the entire width of North Africa. It covers an area of approx. 3,320,000 sq. miles.
- The major countries contributing their land to Sahara deserts are Libya, Algeria, Egypt, Tunisia, Chad, Morocco, Eritrea, Niger, Mauritania, Mali, and Sudan.
- The **Nubian Desert** is the eastern region of the Sahara desert, between the Nile and the Red Sea.
- The **Kalahari Desert** lies in the south and the Namib Desert is along the south-west shore of Africa; encroaching parts of Botswana, Namibia, Zambia, Angola, and Zimbabwe.
- **Sahara Desert**— Largest hot desert — **Tuareg tribes**
- **Namib desert - Hottentots tribes**
- **Kalahari Desert - Bushmen tribe** (the oldest surviving tribal group of Africa)
- **Nubian desert** -Separated by Libyan desert by Nile river *rocky desert*

- **The Islands**

- There are very few islands near Africa.
- **Madagascar (Malagasy)** in the Indian Ocean is the largest island in Africa.
- To the north-west, in the Atlantic Ocean are the **Canary Islands**.
- West of Africa in the South Atlantic Ocean is the island of **Saint Helena** where Napoleon died in exile.
- **Zanzibar** belongs to Tanzania and is closer to the Indian Ocean.

- Madeira – Portugal
- Canary – Spain
- Cape Verde
- Mauritius
- Reunion – France
- Comoros – France
- Seychelles
- ***Islands between Africa and Latin America –***
- All of them –British overseas territories
- Ascension Islands– UK military base
- St. Helena Islands – the exile of Napoleon
- Tristan De Cunha Island – the most remote island of the world

- The Rivers of Africa

- The most important ones are the Nile, the Congo, the Niger, and the Zambezi.
- River Nile –
- This is the longest river in the world.
- It starts from many streams in the equatorial rainforest of the Lake Victoria and Ruwenzori Mountain (the mountains of the moon) region.
- From Lake Albert, it flows as the White Nile.
- At Khartoum, it is joined by the Blue Nile which starts from Lake Tana on the Ethiopian Highlands.
- The Nile flows from 3,000 kilometers through the dry Sahara Desert of Egypt and enters the Mediterranean Sea.
- Egypt is called the gift of the Nile because without the river it would have been a desert.
- Cotton cultivation,
- Petroleum at mouth, navigable, irrigation
- Aswan dam, lake Naseer
- Port Said and Alexandria at the mouth
- Cairo, Giza, Khartoum cities are on River Nile

- **River Congo or Zaire –**
- **The Congo is the second-longest river in Africa.**
- **It starts from the south-west of Lake Tanganyika and flows into the Atlantic Ocean.**
- **The Zaire basin is one of the wettest regions of the Earth and is covered with dense impenetrable jungle.**
- **The river and its network of tributaries are not navigable because of rapids and waterfalls caused by the descent from the plateau to the coast.**
- **Origin: Katanga Plateau**
- **Boyoma waterfall**
- **Pigmy tribes**
- **Petroleum reserve at the mouth**
- **Crosses equator twice**

- **River Niger –**
- This river is the chief river of West Africa. It rises from the Fout Djallon Mountain quite close to the sea but flows north and then turns south again to form a wide arc.
- Finally, it joins the Gulf of Guinea on the Atlantic Ocean.
- **River Zambezi –**
- River Zambezi flows into the Indian Ocean.
- The famous Victoria Falls at the head of a long gorge is on this river.
- **River Limpopo –**
- River Limpopo also flows into the Indian Oceans, which crosses the Tropic of Capricorn twice.
- **River Orange –**
- This flows from the Drakensberg Mountains into the Atlantic Ocean.

- **Lakes of Africa**

Lake Victoria is the second-largest freshwater lake in the world. It is the largest lake in Africa.

The Equator passes through it. It is the source of the white Nile

- **The lakes of the rift valley. There is a string of lakes in the rift valley. Lake Tanganyika and Lake Nyasa (Malawi) are the larger ones.**
- **Lake Tana is on the Ethiopian Plateau. It is the source of the Blue Nile.**

Lake Chad at the southern edge in the Sahara Desert is in a region of inland drainage

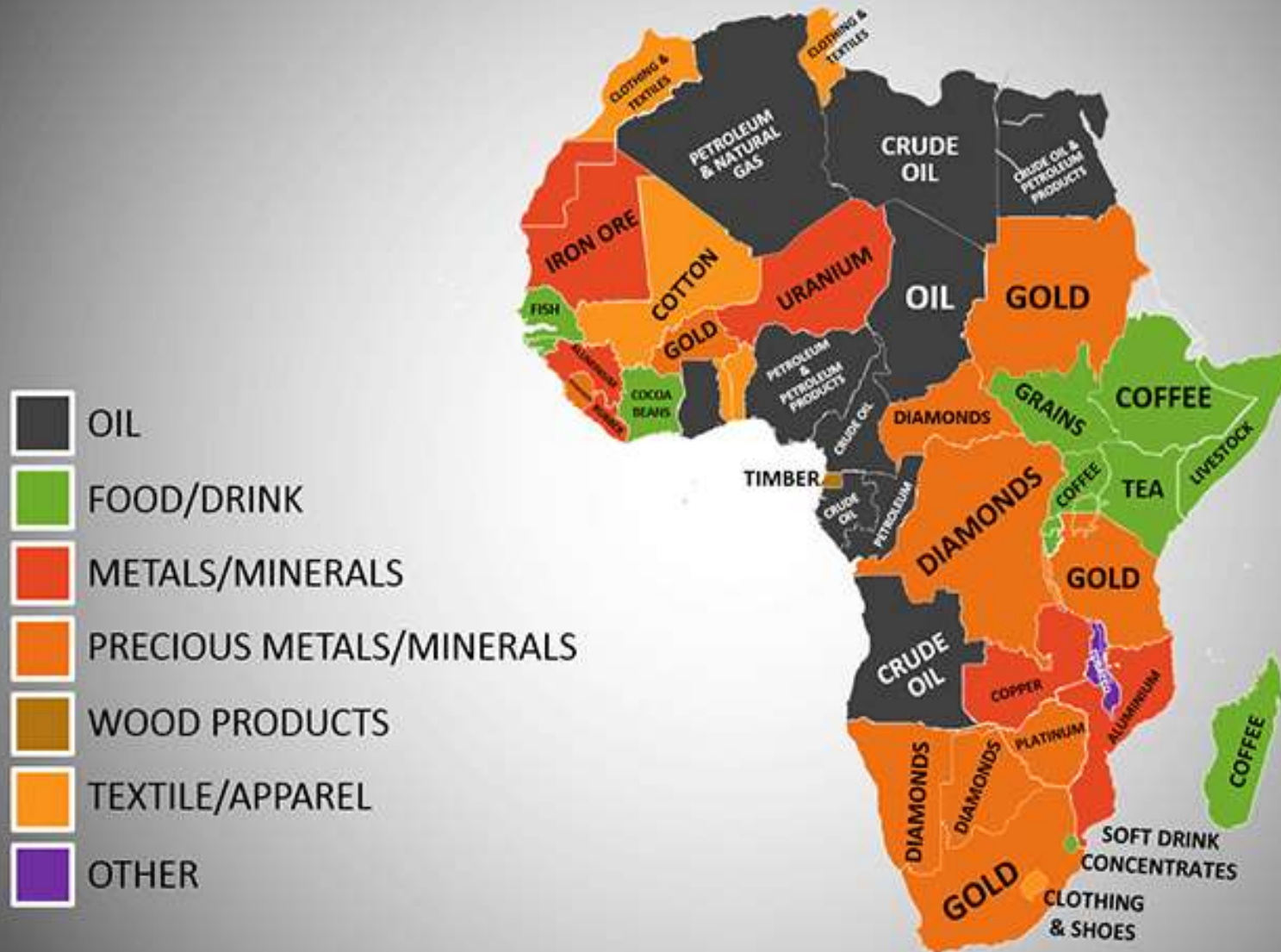
- **Lake Nasser is on the river Nile. It is a man-made lake located between Egypt and Sudan**
- **Lake Kariba is situated in the southernmost part of Africa Zambezi river. largest producer of hydroelectricity in Africa.**
- **Lake Assal is situated in Djibouti and the lowest point in Africa**

- **Countries passing through equator in africa:-**
- The seven countries in Africa the equator does run through include: Gabon , Republic of Congo , Democratic Republic of Congo (formerly Zaire), Uganda , Kenya , Somalia , and Sao Torne and Principe.
- **Horn of Africa?**
- THE PENINSULA OF NORTHEAST Africa is called the Horn of Africa . This area is also known as the Somali Peninsula because within it lies the countries of SOMALIA and eastern ETHIOPIA. It is the easternmost extension of the African continent separating the Gulf of Aden from the INDIAN OCEAN.
- **Algeria is the biggest country in Africa by land area.**
- **The world's hottest place -- Ethiopia -- is in Africa.**
- **The continents terrain was inhabitable and remained unknown for thousands of years, earning it the name of 'Dark Continent'.**

- Mineral reserve of Africa

- Petroleum
- Coal
- Iron
- Diamonds(There are generally 15 diamond producing countries in Africa. They are: Botswana, South Africa, Angola, Namibia, Congo, Zimbabwe, Guinea, Ghana, Congo, Lesotho, Liberia, Sierra Leone, CAR, Tanzania, and Togo)
- Gold
- Uranium, Platinum

Country Vs commodity that sells the most



Knowledge check

- 1) The Equator runs almost through the middle of Africa.
 - 2) Africa is the only continent through which the Tropic of Cancer, the Equator, and the Tropic of Capricorn pass.
 - 3) Africa is the smallest continent that lies entirely in the Southern Hemisphere.
- Which of the above statements is/are correct?
 - a) 1,& 2 only
 - b) 2,& 3 only
 - c) 1,& 3 only
 - d) 1, 2, 3
 - Solution: (a)

- **Tugela Falls is the second highest waterfall in the world lies in which country of Africa?**
- A. Algeria
- B. South Africa
- C. Sudan
- D. Tunisia
- **Ans: B**
- **Explanation:** Tugela Falls is a complex of seasonal waterfalls located in the Drakensberg (Dragon's Mountains) of Royal Natal National Park in KwaZulu-Natal Province, Republic of South Africa. It is also considered as the world's second-tallest waterfall. Hence, B is the correct option.

- **Which of the following is not tribal community of Africa?**
- A. Zulu
- B. Maasai
- C. San Bushmen
- D. Lepcha
- **Ans: D**
- **Explanation:** There are 3000 distinct ethnic groups, 2000 languages. Zulu, Maasai, San Bushmen, Yoruba, Xhona, Hausa, Himba, Oromo, Kalenjin, and Chaga are the most popular tribes of Africa. Lepcha tribes are found in the India. Hence, D is the correct option.

North and South America



- **North America is a continent entirely within the Northern Hemisphere** and almost all within the Western Hemisphere. It can also be considered a northern subcontinent of the Americas.
- It is bordered to the north by the Arctic Ocean, to the east by the Atlantic Ocean, to the west and south by the Pacific Ocean, and to the southeast by South America and the Caribbean Sea.

- **North America is the third largest continent by area**, following Asia and Africa, and the **fourth by population** after Asia, Africa, and Europe..
- There are **five time zones in North America**.
- The Tropic of Cancer and the Arctic Circle passes through the continent.

- **This huge landmass includes three large countries – Canada, the United States of America and Mexico, seven small states of Central America, and the islands of the West Indies.**
- Capital of Canada = Ottawa; Currency of Canada = Canadian Dollar , world's second-largest country by total area.
- The United States of America consists of 50 states, 5 territories and 1 district (Washington D.C.). States
- Mexico is organized as a federation comprising 31 states and Mexico City, its capital and largest metropolis; world's 13th-largest country by area
- **The Atlantic, Pacific, and Arctic oceans surround North America in the east, west, and north respectively.**
- **In the north-west, the Bering Strait separates it from Asia and in the south-east, the Isthmus of Panama joins it to South America. North America has a smooth coastline except for the existing in the north-west.**

North America

— International Boundary
AUSTRALIA - Independent State

- ★ Capital City
- Major City



A

Antigua and Barbuda

B

Bahamas

Barbados

Belize

C

Canada

Costa Rica

Cuba

D

Dominica

Dominican Republic

E

El Salvador

G

Grenada

Guatemala

H

Haiti

Honduras

J

Jamaica

M

Mexico

N

Nicaragua

P

Panama

S

Saint Kitts and Nevis

Saint Lucia

Saint Vincent and the Grenadines

T

Trinidad and Tobago

U

United States of America (USA)



- **North America Regional Divisions Of North America**
 - Western Region
 - Great Plains
 - Canadian Shield
 - Eastern Region
- **Major Physical Divisions of North America**
 - **The Western Cordilleras** (Rocky Mountains, Alaska Range, Cascades, Sierra Nevada, and the Sierra Madre are the chief ranges of the Western Cordilleras)
 - **The Central Lowlands**: stretch from around the Arctic Shores and Hudson Bay to the Gulf of Mexico
 - **The Eastern Highlands**: old fold mountains that stretch from the valley of River St. Lawrence to Southern USA.
- **Gulfs of North America**
 - Gulf of Mexico
 - Gulf of Alaska
 - Gulf of California
 - Gulf of St. Lawrence



- **Islands**

- **Vancouver Island**(situated on **Canada's Pacific Coast**,)
- **Greenland** (It is a massive island situated between Atlantic and Arctic oceans and 80% of its land is covered by ice.)
- **Prince of Wales Island**
- **Hawaii Island**
- **Cuba Islands of Antilles**(It is known as the sugar bowl of the World and its vast source of metallic resources include cobalt, nickel, iron ore, chromium, and copper. Other resources include timber, petroleum, silica, salt, and arable land.)
- **Bermuda Island**(famous for its pink sand beaches such as Elbow and Horseshoe Bay.)

- **Seas in North America**
 - Caribbean Sea
 - Beaufort Sea
 - Hudson Bay
 - Labrador Sea
 - Bering Sea
- **Lakes in North America** (five Great lakes – Superior, Michigan, Huron, Erie, and Ontario.) Lake Winnipeg, Great Bear Lake, and Lake Athabaska are also on the Canadian Shield.
- **Lake Superior** is, by surface area, the world's largest freshwater lake
- **Resources**
 - Agriculture
 - Forestry
 - Mining
 - Drilling
- **Important Industrial Centers of North America**
 - United States of America:
 - Canada

- North America is a leading producer of coal, used in energy production; bauxite used to create aluminum; iron and copper, both used in construction; and nickel, used to create steel, which North American companies export around the world. Gold and silver mines operate in the western part of the continent. Visitors to Crater of Diamonds State Park, a mine in the U.S. state of Arkansas, can search for their own diamonds

- In North America, you can find every single one of the earth's major biomes. These include tropical rainforest, grassland, desert, tundra and coral reef. Unsurprisingly, given this diversity, there are many famous and spectacular *geographical features* on the North American continent. These include the *Appalachian Mountains* and *Rocky Mountains*, the *Mississippi River*, the *Great Lakes*, *Niagara Falls* etc:



- **Gulf of Mexico**

It is an important economic site for three countries and surrounded by the United States, Mexico, and the island nation of Cuba. As one of the biggest gulf, it has a coastline of 5000 kilometers.

- **Gulf of Alaska**

It is situated in the northwestern part of North America where two types of water run into each other, a light, almost electric blue merging with a darker slate-blue.

- **Gulf of California**

It separates the Baja California Peninsula from the Mexican mainland. It has a coastline of 4000 km(2600 miles). It is considered to be one of the most diversified seas on the planet and is home to more than 5,000 species of micro invertebrates.

- **Gulf of St. Lawrence**

It is a water outlet of the North American Great Lakes via Saint Lawrence river.

- The rivers draining into the Gulf of Mexico
- These are the Mississippi, Missouri and their tributaries drain the whole of the lower Central Lowlands. They start from the Western Cordilleras. The Ohio and Tennessee. Rivers which are also tributaries of the Mississippi but have their source in the Appalachians are exceptions.
 - Rivers draining into the Atlantic Ocean
- River St. Lawrence is the large river of this group.
 - Arctic Ocean drainage
- River Mackenzie which has many shallow lakes on the Canadian Shield. River Nelson flow into the Hudson Bay.
 - Pacific Ocean Drainage
- River Yukon in Alaska, Columbia, Fraser, and Colorado along the west coast. The Colorado River cuts across the Colorado plateau and forms the world's most famous and attractive deep gorges, known as grand canons having nearly one km depth. Among the other rivers, the Yukon, the Fraser, the Snake, the Humboldt, the Sacramento, the San Joaquin, etc. are well known.

- **Seas in North America**

- **Caribbean Sea**

- It is a sub-oceanic basin bordered by coasts of Venezuela, Colombia, and Panama; to the west by Costa Rica, Nicaragua, Honduras, Guatemala, Belize, and the Yucatán Peninsula of Mexico; consisting of the island arc that extends from the Virgin Islands in the northeast to Trinidad.

- **Beaufort Sea**

- It is situated in the north of Canada and Alaska is known to be the marginal sea of Arctic Ocean.

- **Hudson Bay**

- It is known as the second largest bay in the world which encompasses an area of 1,230,000 square kilometer (470,000mi) and large body of Salt water.

- **Labrador Sea**

- It is bordered by continental shelves and separates Canada from Greenland.

- **Bering Sea**

- It is situated on the extreme North of North America separating the continents of Asia and North America.



MCQs on North America

- **1. Consider the following statements**
 - i) North America is surrounded by Atlantic Ocean in the East.
 - ii) It is surrounded by gulf of Mexico in the west
 - iii) Pacific ocean lies to its south
- **Which of the above are true?**
 - a) i and ii
 - b) ii and ii
 - c) i only
 - d) ii only
- Answer (i) only

- **Match the following Seas**

i) Bering Sea

ii) Labrador Sea
America

iii) Caribbean Sea

iv) Beaufort Sea

- **Location**

a) East of Labrador

b) East of Central

c) West of Alaska

d) North of Canada

- **a) i-a, ii-b, iii-c, iv-d**

b) i-d, ii-c, iii-b, iv-a

c) i-c, ii-d, ii-a, iv-b

d) i-c, ii-a, iii-b, iv-d

- **Answer (d)**

- **Consider the following statements**
 - i) St. Lawrence is the busiest inland waterway in North America
 - ii) Imperial Valley of Colorado River is an important region for cotton cultivation.
- **Which of the above are true?**
 - a) i and ii
 - b) ii and iii
 - c) ii only
 - d) both
- Answer: both

- **Consider the following**
 - i) Snake river is the largest tributary of the Columbia River
 - ii) Columbia is the largest river in the USA which drains into the Pacific
 - iii) Grand Coulee, Bonneville and Chief Joseph are the main dams of Columbia River.
- **Which of the above are true?**
 - a) i and ii
 - b) ii and iii
 - c) iii only
- **d) all of the above**
- **Answer: all of the above**

- **Consider the following**
 - i) Death valley lies west of the Rockies Mountain in California
 - ii) It is the deepest point of North America
- **Which of the above are correct?**
 - a) i only
 - b) i and ii
 - c) ii only
 - d) none
- **Answer: both(b)**



- **SOUTH AMERICA**

- The **Equator** passes through the northern part of the continent and the **Tropic of Capricorn** runs roughly through the middle.
- Because of its tapering shape, a major part of the landmass is in the tropics. South America lies on the **west of the Prime Meridian**. So the time at any place on this continent will be some hours less than or behind the Greenwich Mean Time.
- The **60° meridian** divides the continent lengthwise into two halves.

- South America is the fourth largest continent after Asia, Africa, and North America.
- **It is two-third the size of Africa and six times the size of India.**
- South America lies on the **west of the Prime Meridian**. So the time at any place on this continent will be some hours less than or behind the Greenwich Mean Time.

- **COUNTRIES**

- **Argentina**
- **Bolivia**
- **Brazil**
- **Chile**
- **Colombia**
- **Ecuador**
- **Falkland Islands (United Kingdom) i.e. (British Overseas Territories)**
- **French Guiana (France)**
- **Guyana**
- **Paraguay**
- **Peru**
- **Suriname**
- **Uruguay**
- **Venezuela.**



This is a detailed physical map of South America, highlighting its major geographical features. The map is color-coded to show different types of terrain: brown for highlands and plateaus, green for lowlands and basins, and blue for water bodies. A thick white line outlines the continent's shape. Major geographical features labeled include the **Andes** mountain range running along the western coast, the **Central Lowlands** and **Eastern Highlands** in the north, the **Western Alpine System** in the west, and the **Eastern Highlands** in the south. The **Amazon Basin** is shown as a large green area in the center. The **Caribbean Sea** is to the north, and the **South Atlantic Ocean** is to the east. The **South Pacific Ocean** is to the west. Numerous countries are labeled, including Venezuela, Colombia, Ecuador, Peru, Brazil, Chile, Argentina, and Uruguay. Major cities like Caracas, Bogotá, Quito, Lima, La Paz, Buenos Aires, and Montevideo are marked. The map also shows the **Galapagos Islands** and the **Falkland Islands**. A scale bar at the bottom left indicates a scale of 1:35,000,000, and a note mentions the Azimuthal Equal-Area Projection. A disclaimer at the bottom right states that boundary representation is not necessarily authoritative.

Boundary representation is not necessarily authentication.

Boundary representation is not available to authors.

- **Major Physical Divisions of South America**
- **The Pacific coastal strip**
- **Mountain Ranges**
- **Andes Mountains:**
- Forms the **second-highest mountain** systems in the world next to the Himalayas
- **Andes Mountains** – A part of seven countries: Venezuela, Colombia, Ecuador, Bolivia, Peru, Chile, Argentina.
- The ***Andes is the longest mountain range in the world.***
- **The Central Lowlands**
- **The Eastern Highlands**
- **(Highlands are split in to three regions:**

- **(Brazilian highlands:**Lava plateau, Minas Garais region- iron and gold reserve.)
- **Guiana Highlands,**
- **Patagonian Plateau))**
- **Guiana Highlands:**
- an abundance of rain, tropical rainforest, gold, diamond, and iron ore reserve. **World's highest fall – Angel's fall** on the Churún River, a tributary of the Caroní
- **Pampas** : the vast grassy plains of southern South America, especially in Argentina.



Rivers of South America

Amazon River(largest river by discharge volume of water in the world, second longest after Nile)

Orinoco River

Magdalene River

Parana-Rio de la Plata

Tocantins-Araguaia

Sao Francisco River

Paraguay and Uruguay Rivers.

- islands

- The **Galapagos Islands** near the Equator and the Juan Fernandez Islands near Central Chile are in the Pacific Ocean.
- The **Tierra del Fuego** is in the Southern Ocean and the Falkland Islands in the South Atlantic Ocean. The island of Trinidad is near Venezuela in the North Atlantic Ocean.

Important Lakes and Islands

NAME	LOCATION
Lake Maracaibo (12,950 sq. km)	North of Venezuela, is one of the major oil producing region.Largest lak of South America.
Lake Titicaca (12,500 feet above sea level)	Situated between Bolivia and Peru.Highest navigable lake in the world.
Lake Popo	Lies in the Altiplano (high Plateau between the Andes mountain chain) in Bolivia.
Galapagos Islands	Home of many unique species of reptiles (turtles), birds and fishes.

- **Pantanal Wetlands**

- It is the **world's largest tropical wetlands**.
- It sprawls across three South American countries i.e. **Bolivia, Brazil, and Paraguay**,
- It has the **largest concentration of crocodiles** in the world.
- **Jaguars**, the largest feline in the Americas, **hunt caiman in the Pantanal**, which has one of the highest density of jaguars anywhere in the world.
- The Pantanal is also **home to the biggest parrot** on the planet, the hyacinth macaw.

- The areas that are protected include parts that fall under an agreement called Ramsar that requires national governments to conserve and wisely use wetlands and some that are UNESCO World Heritage Sites and Biosphere Reserves.
- *Less than 5% of the Pantanal is protected*, with parts that fall under an Ramsar agreement, and some that are UNESCO World Heritage Sites and Biosphere Reserves.



- **Deserts of South America**

- **Patagonian Desert** – the largest desert by area located in Argentina
- **La Guajira Desert** – a desert in northern Colombia and some of northwestern Venezuela
- **Atacama** – a desert in Chile, the driest place on Earth.
- **Sechura Desert** – a desert located along a portion of the northwestern coast of South America
- **Monte Desert** – in Argentina, a smaller desert above the Patagonian desert.

Important Gulfs, Peninsulas and Straits

NAME	INFORMATION
Gulf of Guayaquil	<ul style="list-style-type: none">• West of Ecuador in the Pacific Ocean.
Gulf of Penas	<ul style="list-style-type: none">• Southern Chile in the Pacific Ocean.
Gulf of San Jorge	<ul style="list-style-type: none">• East of Argentina in the Atlantic Ocean.
Gulf of San Matias	<ul style="list-style-type: none">• North of Valdes Peninsula (Argentina) in the Atlantic Ocean.
Taitao Peninsula	<ul style="list-style-type: none">• Surrounded by Gulf of Penas and the Pacific Ocean in Southern Chile.
Valdes Peninsula (Argentina)	<ul style="list-style-type: none">• Lowest part of South America surrounded by Gulf of San Matias (North), Gulf of San Jose (West), Gulf of Nuero and the Atlantic Ocean.
Magellan's Strait	<ul style="list-style-type: none">• Separates southern end of South America, the Tierra Del Fuego.
Drake Passage	<ul style="list-style-type: none">• Strait between South America and Antarctica.

- **Latin America is generally understood to consist of the entire continent of South America in addition to Mexico, Central America, and the islands of the Caribbean**

MCQs

- **Consider the following**
 - i) The Amazon river is the second largest river after the Nile
 - ii) Medeira is the largest tributary of the Amazon river
 - iii) The Amazon basin is covered with dense forests called Selvas
- **Which of the above are correct?**
 - a) i and ii
 - b) i, ii and iii
 - c) none
 - d) i and iii
- Answer: I,ii &iii

- **Through which of the following countries the line of equator passes?**
 - a. Peru
 - b. Chile
 - c. Venezuela
 - d. Ecuador
- Answer: equador

- **Through which of the following countries the line of Tropic of Capricorn passes?**
 - a. Argentina
 - b. Columbia
 - c. Ecuador
 - d. French Guiana
- Answer:argentina

- **MERCOSUR is the regional trade organization of the continent of South America. Which of the following countries is not part of this organization?**

a. Argentina

b. Uruguay

c. Paraguay

d. Guyana

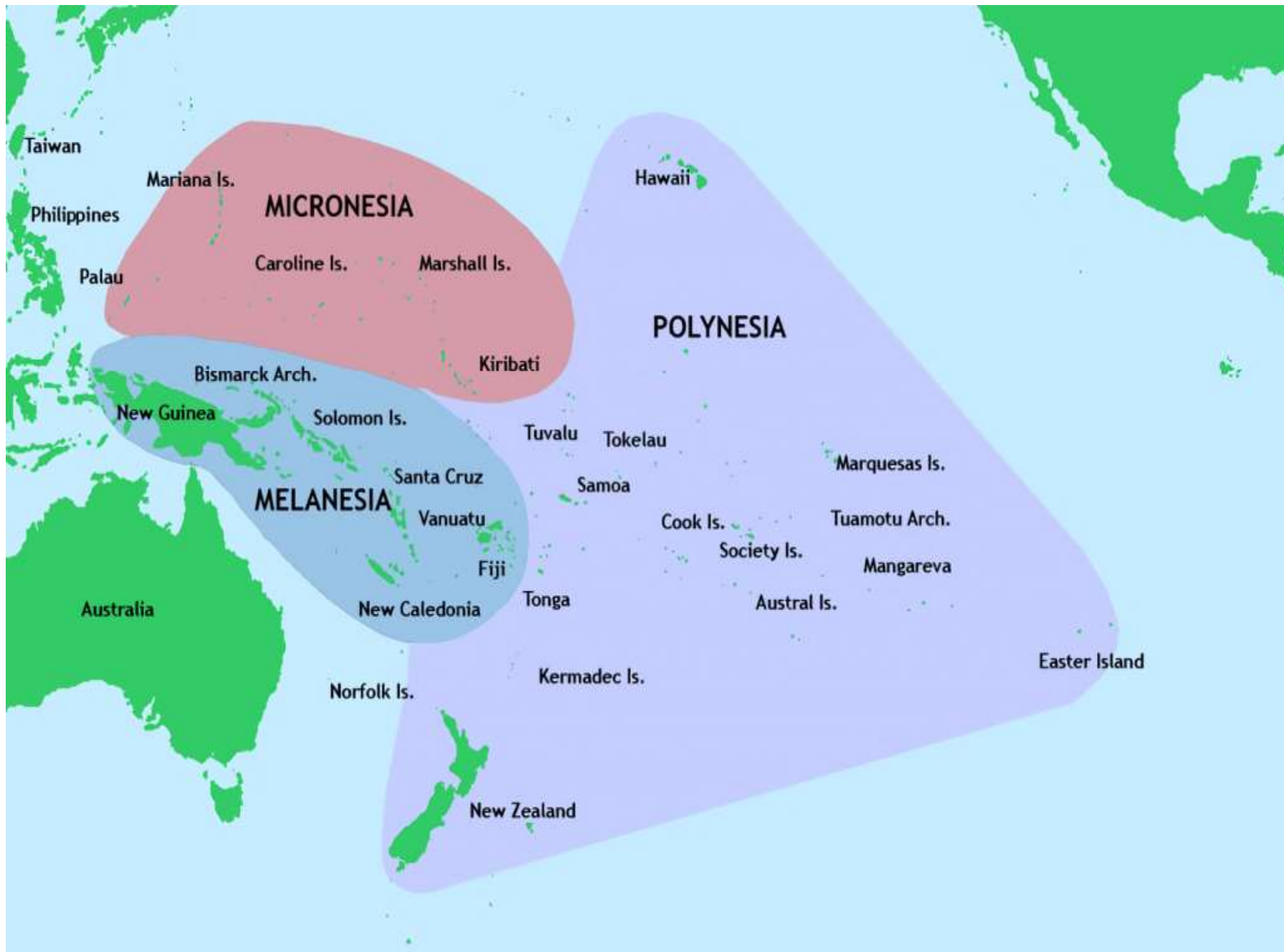
- Answer: guyana

- **Which of the following countries of South America is land-locked?**
 - a. Venezuela
 - b. Suriname
 - c. Bolivia
 - d. Chile
- Answer bolivia

GEOGRAPHY

Physical divisions of the world

Australia and oceania



- **AUSTRALIA**

- **Capital:** Canberra
- It is the only continent which is also a country
- To the southeast of the mainland lies the island of Tasmania
- **Australia** is the world's **largest island and smallest continent**. It lies entirely in the Southern Hemisphere and is aptly named – **Austral meaning south**.
- The **Tropic of Capricorn** cuts the continent almost into half. Asia is the continent nearest to Australia.

- **Australia and Oceania**

- **Thousands of islands combine to form the Oceania region** mostly covering the Central and South Pacific Ocean.
- The region is dominated by the world's biggest island and two other major landmasses, micro-continent of **Zealandia (includes New Zealand)** and the western half of the island of New Guinea, made up of the nation of Papua New Guinea.
- **Oceania also includes three island regions: Melanesia, Micronesia, and Polynesia (including the U.S. state of Hawaii).**

A

Australia

F

Fiji

K

Kiribati

M

Marshall Islands

Micronesia

N

Nauru

New Zealand

P

Palau

Papua New Guinea

S

Samoa

Solomon Islands

T

Tonga

Tuvalu

V

Vanuatu

List of dependent territories of Oceania in alphabetical order

A

American Samoa *(USA)*

C

Cook Islands *(New Zealand)*

F

French Polynesia *(France)*

G

Guam *(USA)*

N

New Caledonia *(France)*

Niue *(New Zealand)*

Norfolk Island *(Australia)*

Northern Mariana Islands *(USA)*

P

Pitcairn Islands *(UK)*

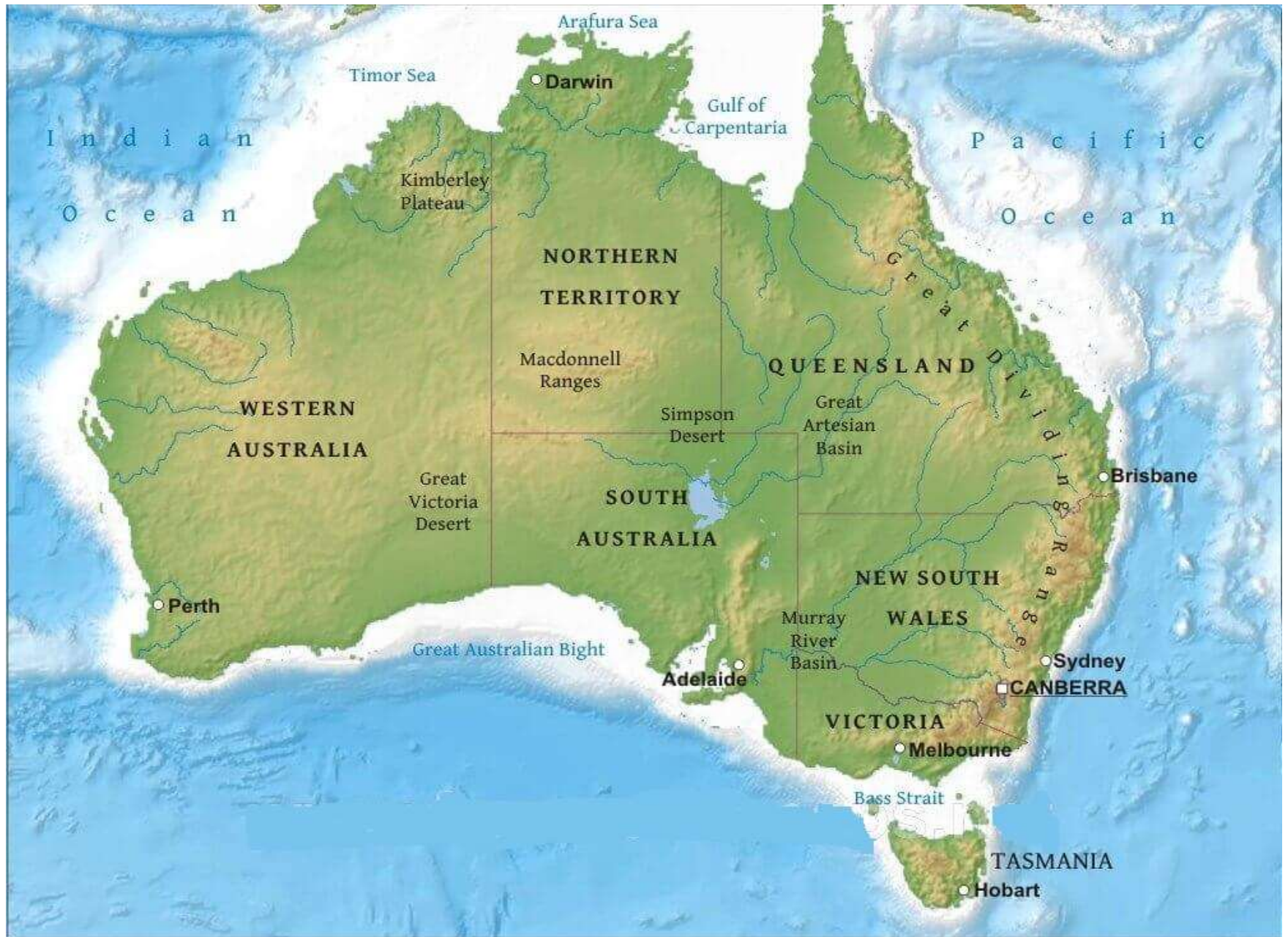
T

Tokelau *(New Zealand)*

W

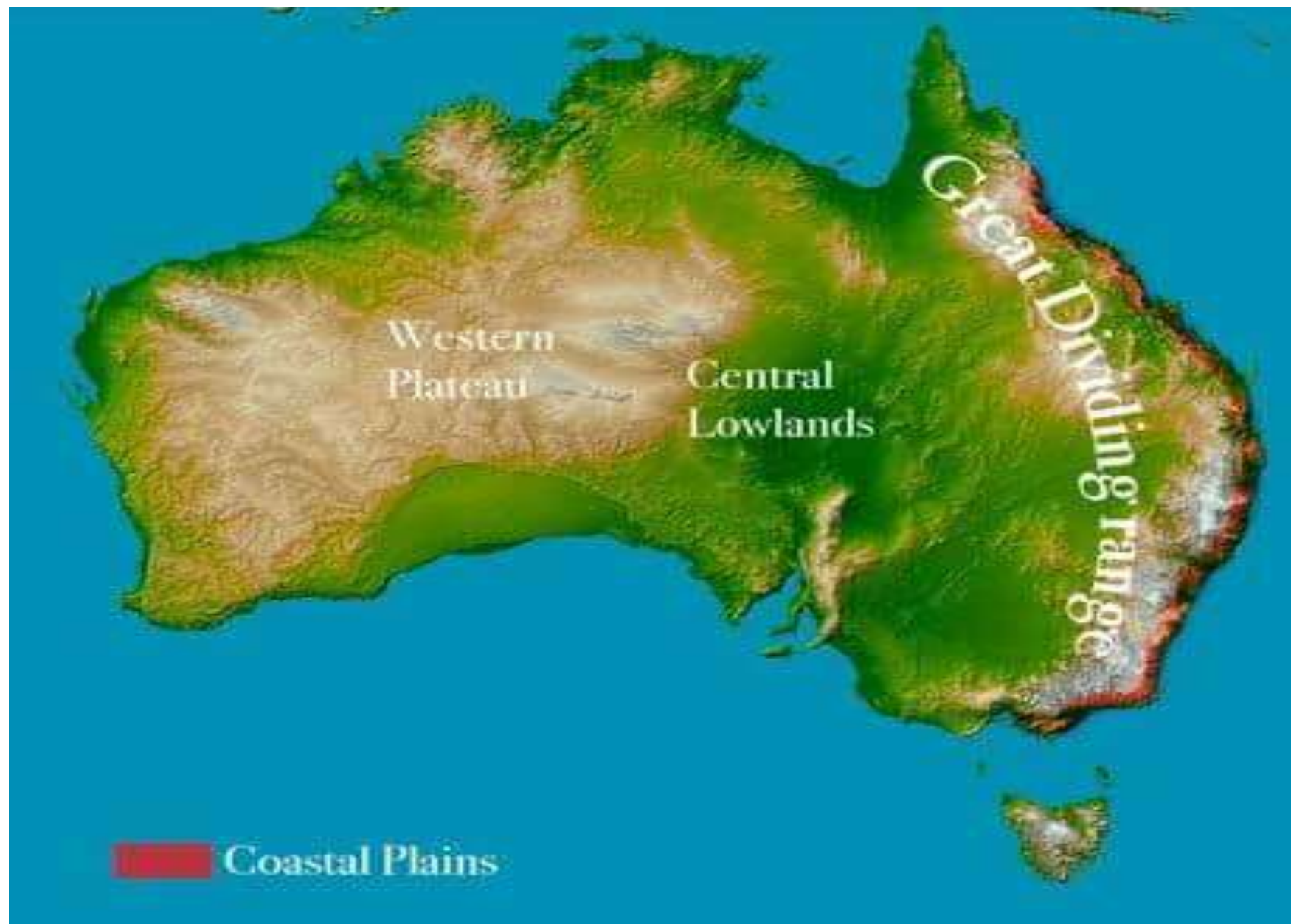
Wake Island *(USA)*

Wallis and Futuna *(France)*



- **Physical Divisions**

- **Eastern Highland(great dividing range)**
- **The Western Plateau**
- **Desert**
- **The Central Lowland**
- **The Great Barrier Reef**





- This is the largest coral reef in the world.
- It lies along the east coast of Queensland, Australia, in the Pacific Ocean.
- It is about 2,000 kilometers long, in some places, it is as close as 16 kilometers to the coast while in other places it is 200 kilometers away.
- It is formed by the tiny coral polyps.

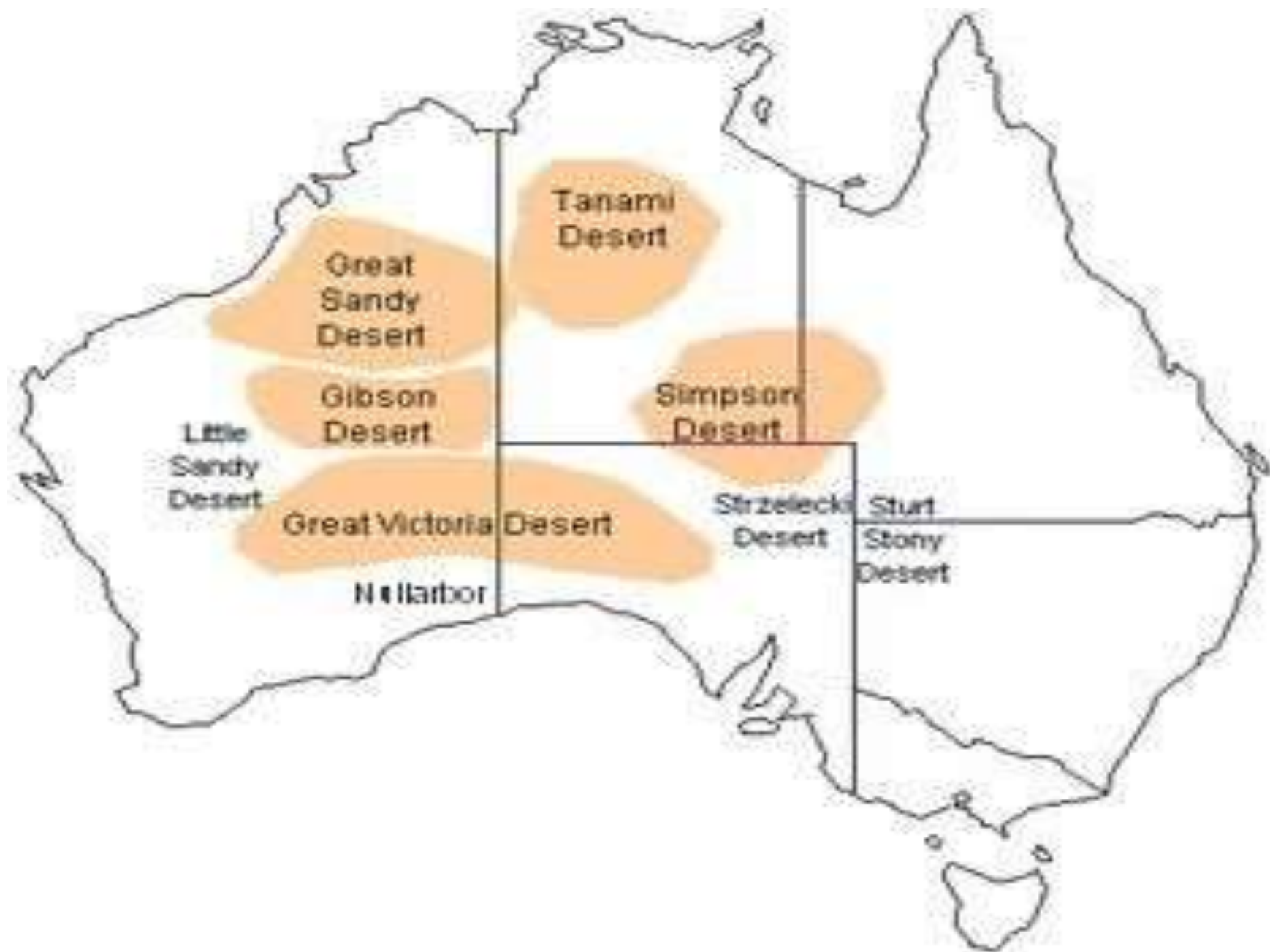
AUSTRALIA

River Map



- **Drainage System**

- Australia has **low average rainfall**.
- Being a hot dry country the rate of evaporation is high. So there is very little water left to flow like a river to the sea.
- As a result of this, the total Australian continent is mainly drained by two of the largest drainage **basins Murray and Darling** and an inland lake is also found which is known as Lake Eyre Basin. Which accounts for an area for over 1 million square kilometers.
- River Murray starts from the **Snowy Mountains** of the Great Dividing Range.
- Its tributaries are the Darling, Murrumbidgee, and Lachlan.
- River Swan near Perth.



- **Gibson Desert – a central Australian desert**
- **Great Sandy Desert – a northwestern Australian desert**
- **Great Victoria Desert – the sixth-largest desert in the world by area, located in south-central Australia.**
- **Simpson Desert – a central Australian desert**
- **Little Sandy Desert – a western Australian desert**
- **Strzelecki Desert – a south-central Australian desert**
- **Tanami Desert – a northern Australian desert**
- **Western Desert – a desert located in western Australia, comprising the Gibson, Great Sandy, and Little Sandy deserts.**
- **Rangipo Desert – a barren light altitude desert on the North Island Volcanic Plateau in New Zealand.**

LOW / HILLS MOUNTAINS



150 km

SOUTH ISLAND

South Pacific
Ocean

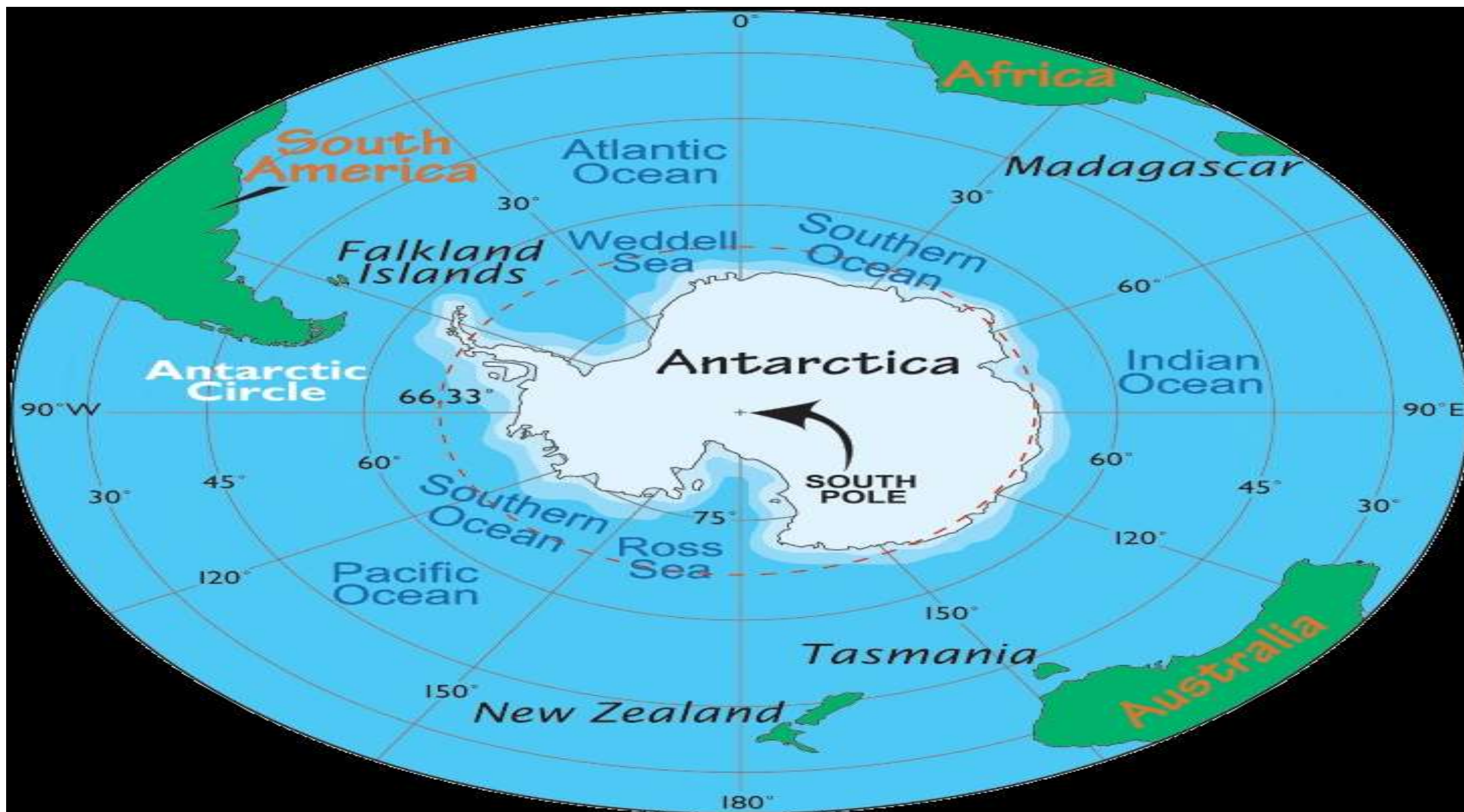


- **Important regions of New Zealand**
- **Taranaki Plain of New Zealand:**
- Volcanic plain
- Volcanic peak – Mt. Taranaki
- More than 50% of the region has rich pastureland
- sheep and cattle rearing for Dairying, meat imp activities
- **Canterbury Plain of New Zealand**
- Pastoral farming
- Predominantly sheep farming for lamb-wool
- then cattle rearing for meat then dairying

- New Zealand is home to the **smallest dolphin species** on earth.
- **Wellington** is the south-most capital of the world.
- New Zealand is the **second-largest** producer of wool in the world.
- New Zealand ranks **8th** among the top **dairy producers** in the world.

MCQs

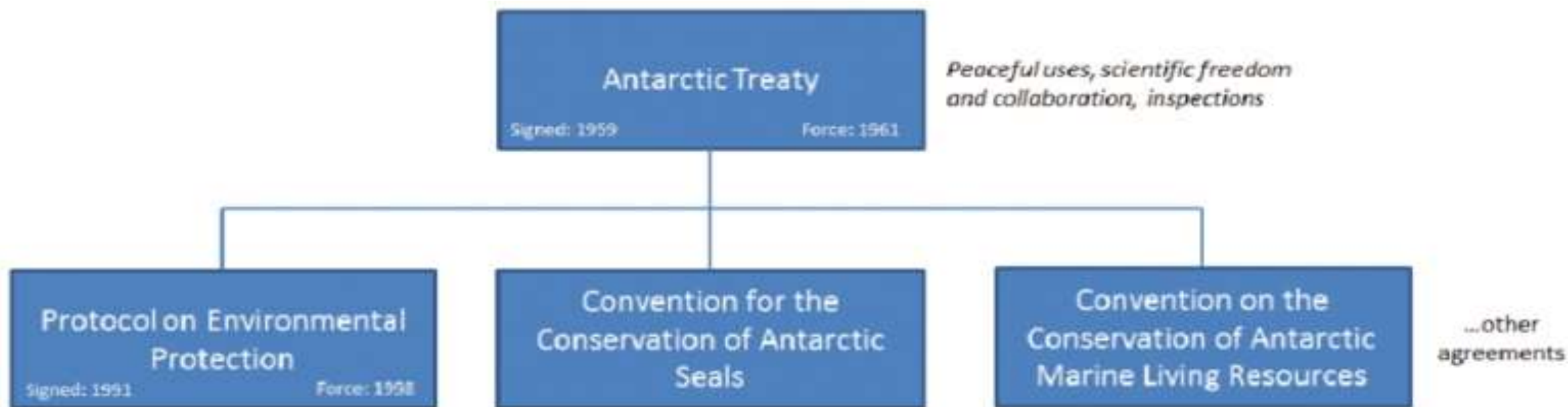
- **Which of the following imaginary line passes through the middle of the continent?**
- A. Tropic of Capricorn
- B. Tropic of Cancer
- C. Equator
- D. 0 Degree longitude
- **Ans: A**
- **Explanation:** The Tropic of Capricorn passes through the middle of the Australian continent. Hence, A is the correct option.



Antarctica

- It is the southernmost continent and lies entirely within the Antarctic Circle spread around the **South Pole**.
- To the south of India, beyond the Indian Ocean lies the **frozen continent of Antarctica**.
- The name means – **opposite the Arctic**.
- It separated from the rest of the world by the **icy waters of the Southern Ocean** which comprises of the southern portions of the Indian, Atlantic, and Pacific Oceans.
- It is the **fifth-largest continent**.
- It is **larger than Europe** and is **twice the size of Australia**.

- Antarctic Mountains that cross the entire continent divide the land into West Antarctica and East Antarctica.
- It is the only continent that is completely covered by permanent ice and snow hence it is known as the white continent.
- The **Antarctic Treaty** was signed in **Washington** on **1 December 1959** by the **twelve nations** that had been active during the IGY (Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, United Kingdom, United States, and USSR).
- Through this agreement, the countries active in Antarctica consult on the uses of a whole continent, with a commitment that it should not become the scene or object of international discord



Antarctic Plant Production Systems – Main Drivers

- | | | |
|---|---|---|
| Annex I (Environmental Impact Assessment)
<i>All</i> | → | Environmental evaluation and approval |
| Annex II (Fauna and Flora)
<i>Articles 4, Appendices B, C</i> | → | Non-native species introduction (exception domestic plants), permits required, no non-sterilized soil |
| Annex III (Waste Management)
<i>Articles 1, 2, 6, 7, 8</i> | → | Reduce waste production to extent possible, removal, liquid waste, proper storage, no pesticides, discourage PVC, waste management plan |
| Annex VI (Liability)
<i>Articles 3, 4, 5, 6</i> | → | Prevention, contingency plans, response, liability |

- Aurora

- In winter, there is a continuous night for 3 months in the polar regions. Curtains of **brilliant colored lights** appear on these dark nights. They are caused by **magnetic storms in the upper atmosphere**.
- They are called **Aurora Australis in the south** and **Aurora Borealis in the north**
- scientific station called Dakshin Gangotri laid plans for a second base called Maitri

- **Pacific Ocean**

The Pacific Ocean is the largest of the oceans covering around one third of the Earth's surface. It separates Asia and Australia from North and South America. The Pacific Ocean got its name from the explorer Ferdinand Magellan. He called it the Mar Pacifico, meaning the "peaceful sea" in Portuguese.

- The Mariana Trench lies within the Pacific Ocean. It's the deepest place in the world at 35,797 feet under the ocean
- **The Pacific Ocean covers a third of the Earth's surface**
- The 'Ring of Fire' is an area of high geological activity that is located on the rim of the Pacific Basin.

- **Atlantic Ocean**

The Atlantic Ocean is the world's second largest ocean. It separates Europe and Africa from North and South America.

- Columbus sailed across the Atlantic discovering the Americas. The Atlantic Ocean gets its name from the Greeks who called it the Sea of Atlas.
- The deepest area is found in the Puerto Rico Trench(Milwaukee Deep)
S-shape basin extending north to south and divided into North Atlantic and South Atlantic by counter currents at the equator (about 8° N latitude)

- **Indian Ocean**

The Indian Ocean is the third largest ocean in the world. It lies south of Asia, and India, and separates East Africa from Australia. It is the warmest ocean in the world.

The Indian Ocean includes the Red Sea and the Persian Gulf. Significant islands include Madagascar, the Seychelles, and Sri Lanka.

The official border of the Atlantic Ocean and Indian Ocean is at Cape Agulhas/South Africa.

- **Arctic Ocean**

The Arctic Ocean is in the northern part of the Earth, primarily around the North Pole. It is the smallest and shallowest of the world's oceans. A lot of fresh water enters the Arctic from melting ice. For a good part of the year much of the Arctic is covered in ice.

- **Southern Ocean**

The Southern Ocean is the fourth largest, or second smallest of the oceans. It sits at the South Pole and the southern part of the Earth.

The five oceans from smallest to largest are: the Arctic, Southern, Indian, Atlantic and Pacific.

- The boundaries between the oceans are set by the **International Hydrographic Organization**

MCQ

- **Q1. Consider the following statements regarding Aurora or Northern lights.**
- Auroras are the glowing lights at high latitude.
- Auroras can be normally observed in the stratosphere.
- Change in the atmospheric temperature cause Auroras.
- Which of the above statement is/are correct?
- a) 1, 3
b) 1 only
c) 2, 3
d) 1, 2, 3
- **Solution: b)**