

1. The four physiographic divisions of Assam are:

- (i) The Brahmaputra Valley. (ii) The Barak Valley.
- (iii) The Karbi Plateau. (iv) The Barail and Southern hills.

2. The physiographic regions of the Brahmaputra valley are:

- (i) Northern foothills, (ii) the north and south bank plains.
- (iii) the flood plains and charlands, (iv) the southern foothills.

3. North bank tributaries: Subansiri, Dhansiri, Barnadi and Pagladia

South bank tributaries: Dhansiri, Burhi Dihing, Dikhow, Kopili and Kulsi.

4. The Brahmaputra plain includes both the north bank and south bank plain, which were formed due to the deposition of alluvial sediments carried by the Brahmaputra and its tributaries from the northern and southern hills and highlands. The plains of both the north and south bank are composed of alluvial soils which are suitable for agriculture. This region is thickly populated and developed in transportation.

5. The region is situated between the north bank and south bank plains, where occasional and frequent floods are caused by the Brahmaputra River. This floodplain naturally includes the charlands developed on the bed of the Brahmaputra. The floodplain on the north bank, especially in the districts of Dhemaji and Barpeta is characterised by a number of wetlands and swamps. On the other hand the south bank floodplain is comparatively narrow. However, it is somewhat wide near the confluence areas of Burhi Dihing, Disang, Dhansiri, Kolang-Kopili and Kulshi rivers.

6. Majuli is the oldest and the largest inhabited riverine island of the world. It is located within the Brahmaputra river. It is declared as a district curving out from Jorhat district in the year 2016. At present this island district covers a land area of approx. 422 km² with a total population of 1.68 lakh. Flood and bank erosion problems have adversely affected the lives of the people of Majuli. The land area of the island has been decreasing year after year due to bank erosion.

7. The Barak Valley is an important physiographic region of Assam. The river Barak flows for 225 km in Assam from east to west through Cachar district and along the northern boundary of Hailakandi and Karimgang districts.

The Barak plain has been created through deposition of alluvial sediments carried by the river Barak and its tributaries. This plain is also known as Cachar plain.

8. The Kopili valley has divided the Karbi Plateau into two parts, the eastern part and the western part. The eastern part covered by the Rengma - hills spans over the entire Diphu and Bokajan sub-divisions of Karbi Anglong district. On the other hand, the western part covers the Hamren sub-division of the district. The physiography of this part of the Karbi plateau has developed as a result of the works of the rivers Kopili and Barapani and their tributaries.

9. The Barail Range is a mountain range located in the northeastern part of India, specifically in the states of Assam, Nagaland, Meghalaya and Manipur.

The part of the Barail range extending westward from Tuensang across Nagaland spans over the North Cachar Hills district of Assam. Actually, the Barail range has connected the Naga hills in the east with the Meghalaya Plateau in the West. This range has also divided the North Cachar Hills region into two parts. The north-sloping part falls within the Brahmaputra valley, while

the south-sloping part falls within the Brahmaputra valley. The north-sloping part is relatively lower than the south-sloping part.

10. What is the type of Assam's climate? Write briefly about its characteristics.

Answer: Geographically, Assam falls under the sub-tropical monsoon climate.

The state of Assam witnesses heavy rainfall in the summer season, dry condition in the winter season and almost always extreme humidity and relatively low temperature. Although the climate of Assam is basically influenced by monsoon wind, its geographical variations have made the climate quite diverse. Besides, the presence of local winds like mountain wind, valley wind and rivers including other wetlands greatly influences the local climatic characteristics of the state.

11. The summer reainfall of Assam occurs due to the orographic and cyclonic processes of the moist south-west monsoon.

12. The geographical factors influencing the climate of Assam are given below :

(i) Variations in geographic location, topography, water surface area of Arcabian Sea, Bay of Bengal and Indian Ocean, and the south-west monsoon wind etc. have made the climatic characteristics of the state quite different in different places.

(ii) The impact of seasonal variations in changing air pressure of the north-west Indian landmass can also be observed in the states climate.

(iii) The Pressure of local winds like mountain wind, valley wind and rivers including other wetlands greatly influences the local climatic characteristics of the state.

(iv) The air temperature of the Brahmaputra and Barak Valley also inflecences the local climatic characteristics of the state.

13. Based on differences in the condition of climatic elements of different times in a year mainly four climatic seasons have been identified in Assam. These seasons are- Pre-Monsoon, Monsoon, Retreating Monsoon and Dry Winter.

The temperature difference between winter and summer in a year is remarkable. On an average the amount of temperature in winter is 7°C and in summer it becomes 35°C. On an average, the state receives annual rainfall of about 200 cm. Due to the overall impact of the state's topographic condition, location and presence of neighboring hills, the distribution of rainfall in the state is quite uneven. Generally occurrence of rainfall is more in the hills and foothill areas.

14. North Lakhimapur receives highest annual reainfall of 335cm, whereas Lanka Lumding reegions of Nagaon receive lowest rainfall as it receives annual reainfall of 129 cm only.

15. Due to the overall impact of the states topography topographic condition, location and presence of neighbouring hills, the distribution of reainfall not uniform in all places of Assam.

16. Rainfall in Assam is quite uneven over a period of time in a year. Generally the the occurrence is more in the hills and foothills areas.

Besides, Tinsukia, Dibrugarh, Dhemaji. Lakkampur and Sivasagar in upper Assam; Kokrajhar and Dhubri districts of the lower Assam; and Cachar Karimganj and Hailakandi districts of southern Assam receives annual rainfall of morce than 250 cm. On the other hand, the amount of reainfall is quite less in Nagaon and Karebi Anglong districts of Central Assam.

17. The soils of Assam can be classified into Four types. Such as: Alluvial soil, Piedmont soil, Hill soil and Laterite soil.

(i) Alluvial soil : The alluvial soils are extensively found in the plains of Brahmaputra and Barak Valleys. These soils have been formed as a result of deposition of silt and clays carried by the rivers and their tributaries.

(ii) Piedmont soil : The piedmont soils are confined to the northern narrow zone along the piedmont zone of the Himalayan Foothills.

(iii) Hill soil : The hill soils are generally found in the southern hill areas of Assam. Fertility generally of hill soils differs from place to place.

(iv) Laterite soil : The laterite soils are found in almost entire North Cachar Hills district and some in southern parts of the Karbi Plateau.

18. The reasons behind the soil erosion in Assam are as follows :

Physical factors:

- (a)** The soil erosion on the hill slopes due to natural causes
- (b)** Water logging problems created on the plains and low lying areas.

Human factors :

- (a)** Surface soil erosion caused by increased surface water flow due to tree falling etc.
- (b)** Cultivation of land and on hill slopes in nonscientific manner
- (c)** Jhum cultivation done in the hilly areas.

19. The different types of Forest in Assam are :

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| i) Tropical Evergreen Forest | ii) Tropical Semi evergreen Forest |
| iii) Tropical Moist Deciduous Forest | iv) Riverine Forest |
| v) Tropical Dry Deciduous Forest. | |

(a) Tropical Evergreen Forest : This type of forest is seen in the areas of high rainfall. Such forests are also called Rain Forest.

(b) Tropical Semi-evergreen Forests : This type of forests are found to occur in the northern Bhabar zone, parts of the Brahmaputra valley, hilly areas of the Karbi Anglong and Dima Hasao districts and the southern part of the Barak valley.

c) Tropical Moist Deciduous Forest : In certain parts of lower Brahmaputra valley, Karbi Anglong and Dima Hasao-districts and the Barak valley this type of forest occur.

d) Riverine Forest : A special type of forest is generally seen in the wet Peripheries of the rivers and wetlands which may be called Riverine Forest.

e) Tropical Dry Deciduous Forest : The dry deciduous Forests mainly occur in the dry sandy areas close to the wet riverine Forest areas.

20. Rain forest is a type of forest which is seen in the areas of high rainfall. This type of forests are found to occur in the areas having a yearly rainfall of 300 cm

Characteristics : The evergreen forests or rainforests occur with three layers of Forests. Such as :

i) First Layer : The first layer is composed of very tall trees like Holong and Mekai.

(ii) Second layer : The second layer is formed by some shorter trees like Nahar, Chiya Nahar, Amari etc.

(iii) Third layer : The third layer is composed of short trees and grasses.

21. The riverine forests are dominated by some tall trees and grasses. Among the trees, Chom, Showalu, Uriam, Moz, Ou, Ajar are important. However, the riverine tracts are very favorable for grasses and bushy vegetations. Kaziranga, Dibru-Saikhowa and Orang national parks and Pobitora wildlife sanctuary are mainly located in the riverine tracts. However, due to the expansion of human settlements these forests are getting reduced in size rapidly.

22. Kaziranga National Park is located in Golaghat, Nagaon and Sonitpur district covering an area of around 858.98 sq. Km.

23. The names and location of the national parks of Assam are:

- i. Kaziranga National Park located in Golaghat, Nagaon and Sonitpur.
- ii. Manas National Park in Chirang and Baksa.
- iii. Orang National Park located in Udalguri and Sonitpur.
- iv. Nameri National Park in Sonitpur.
- v. Dibru-Saikhowa National Park in Dibrugarh and Tinsukia.

24. In Assam, there are 5 national parks and 18 wildlife sanctuaries covering a total area of 3592.94 sq. km. Along with these, there are two other proposed wildlife sanctuaries. These protected areas are the home of wild elephants, tigers, rhinoceros, buffalos, a variety of deer, monkeys and other wild animals.

With the presence of grasslands, trees and wetlands, these protected areas attract a large number of domestic and foreign tourists. The future of biodiversity of our state lies to a great extent, on the ability to protect these areas.

25: The changes in administrative boundaries in Assam during the post independence period are:

- (i) In 1947, Sylhet was separated from Assam and joined East Pakistan (present Bangladesh).
- (ii) Three independence states, i.e Nagaland, Meghalaya and Mizoram were separated from Assam.
- (iii) In 1947, Shillong was the capital of Assam which was changed to Dispur (Guwahati) in 1973.
- (iv) There were 11 districts in Assam at the time of independence which has now increased to 33 districts.
- (v) Since 1971, there has been no significant change in the area of Assam including its geographical boundary and spatial extent.

27. At present the state of Assam has a land area of 78,438 Km².

The capital city of Assam is Dispur (Guwahati) located in Kamrup Metro district.

Karbi Anglong with land area of 10,434 Km² is the largest district and with 955Km² land area, Kamrup Metropolitan was the smallest district of Assam (prior to 2015). At present, the smallest district of Assam is South Salmara with an area of 568 km².

28. The state of Assam has population of 31.16 million (According to 2011 Census).

The largest district in terms of population is Nagaon with 28,23,768 population size and Dima-Hasao with 2,14,102 population size is the smallest.