Class XI Session 2025-26
Subject - Geography
Sample Question Paper - 3

Time Allowed: 3 hours **Maximum Marks: 70**

General Instructions:

Read the following instructions carefully and follow them:

1. This question paper contains 30 questions. All questions are compulsory.
2. Question paper is divided into five sections A, B, C, D and E.
3. Section A Questions no. 1 to 17 are Multiple Choice type questions. Each question carries 1 mark.
4. Section B Questions no. 18 and 19 are Source-based questions. Each question carries 3 marks.
5. Section C Questions no. 20 to 23 are Short Answer type questions. Each question carries 3 marks. Answer to these questions shall be written in 80 to 100 words.
6. Section D Questions no. 24 to 28 are Long Answer type questions. Each question carries 5 marks. Answer to these questions shall be written in 120 to 150 words.
7. Section E Questions no. 29 and 30 are Map-based questions. Each question carries 5 marks.
8. There is no overall choice given in the question paper. However, an internal choice has been provided in a few questions in all sections other than Section A.

Section A

1. **Assertion (A):** Geography in the twentieth century became a discipline that studied the earth's surface from two perspectives systematic and regional. **[1]**

   Reason (R): Humans remained a central theme in the study of geography.

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

2. Which of the following pairs is matched correctly? **[1]**

Act/Project	**Year of Enactment**
(a) Comprehensive Wildlife Act	(i) 1973
(b) Project Elephant	(ii) 1992
(c) Project Tiger	(iii) 1978
(d) Crocodile Breeding Project	(iv) 1991

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

3. Which of the following is not an inner planet? **[1]**

a) Earth
b) Mercury
c) Jupiter
d) Venus

4. Consider the following statements and choose the correct option from the given options **[1]**

I. The mitigation of hazards created by tsunami is difficult.
II. Unlike other natural disasters, losses are on a much larger scale.

a) Only Statement II is correct
b) Both the statements I and II are incorrect
c) Both the statements are true and statement II correctly present the reason for statement I
d) Only statement I is correct

5. Which one of the following questions is related to cause-effect relationships? **[1]**

a) Why
b) Where
c) When
d) What

6. The air can only contain a certain amount of water vapour before it is saturated. On which of the following factor does this amount depend? **[1]**

a) whether the air is above sea or land
b) the amount of dust particles in the air
c) the temperature of the air
d) the wind speed

7. **Assertion (A):** The Godavari is the largest Peninsular river system. **[1]**
Reason (R): Its tributaries run through the states of Karnataka, Kerala, Andhra Pradesh.

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

8. Which one of the following means vertical heating of the atmosphere? **[1]**

a) Transition
b) Conduction
c) Convection
d) Advection

9. Which are the two island countries located in the Indian Ocean? **[1]**

a) China and Bhutan
b) Myanmar and Indonesia
c) Nepal and Bhutan
d) Sri Lanka and Maldives

10. The raising of trees and agriculture crops on the same land inclusive of the waste patches are called: **[1]**

a) Rural forestry
b) Urban forestry
c) Farm forestry
d) Agro- forestry

11. Arrange the following in correct sequence: **[1]**

i. By mid- July, southwest monsoon engulfs the entire subcontinent.
ii. By mid- June the Arabian Sea branch of the monsoon arrives over Saurashtra-Kuchchh and the central part of the country.
iii. It moves swiftly to reach Mumbai and Kolkata between 10th and 13th June.
iv. The southwest monsoon sets in over the Kerala coast by 1st June.

a) (ii) - (i) - (iv) - (iii)

b) (i) - (iv) - (iii) - (ii)

c) (iii) - (ii) - (iv) - (i)

d) (iv) - (iii) - (ii) - (i)

12. Which one of the following forest spread over regions which receive rainfall between 70-200 cm? **[1]**

a) Tropical Deciduous forests

b) Tropical Thorn forests

c) Montane forests

d) Littoral and Swamp forests

13. The area of India is **[1]**

a) 32,80,263 sq. km

b) 32,87,283 sq. km

c) 32,87,263 sq. km

d) 30,87,263 sq. km

14. Which of the following pairs is matched correctly? **[1]**

River	**Place of Origin**
(a) Shetruniji	(i) Amarkantak hills
(b) Vaitarna	(ii) Rajmahal hills
(c) Bharathapuzha	(iii) Annamalai hills
(d) Narmada	(iv) Brahmagiri hills

a) (d) - (iv)

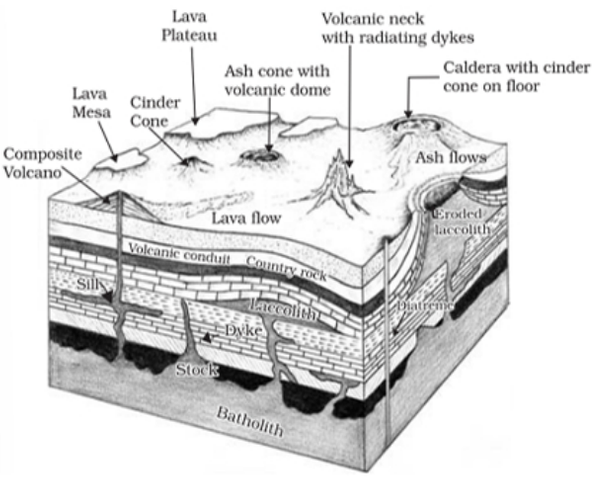
b) (a) - (i)

c) (b) - (ii)

d) (c) - (iii)

Question No. 15 to 17 are based on the given text. Read the text carefully and answer the questions: **[3]**

Read the following diagram and answer



15. Name the cooled portion of magma chambers.

a) Lapolith

b) Laccolith

c) Batholiths

d) Phacolith

16. What type of geological features are large dome-shaped intrusive bodies with a level base and a pipe-like conduit connecting them from below?

a) Batholiths

b) Lacccoliths

c) Dyke

d) Sills

17. Which term is used to describe near-horizontal bodies of intrusive igneous rocks, varying based on their thickness?

a) Dykes

b) Sheets

c) Lacoliths

d) Phacolith

Section B

18. **Read the following text carefully and answer the questions that follow:** **[3]**

To the northwest of the Aravali hills lies the Great Indian desert. It 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 arid climate with low vegetation cover. It is because of these characteristic features that this is also known as Marusthali. It is believed that during the Mesozoic era, this region was under the sea. This can be corroborated by the evidence available at wood fossils park at Aakal and marine deposits around Brahmsar, near Jaisalmer (The approximate age of the wood fossils is estimated to be 180 million years). Though the underlying rock structure of the desert is an extension of the Peninsular plateau, yet, due to extreme arid conditions, its surface features have been carved by physical weathering and wind actions. Some of the well pronounced desert land features present here are mushroom rocks, shifting dunes and oasis (mostly in its southern part). On the basis of the orientation, the desert can be divided into two parts: the northern part is sloping towards Sindh and the southern towards the Rann of Kachchh. Most of the rivers in this region are ephemeral. The Luni River flowing in the southern part of the desert is of some significance. Low precipitation and high evaporation make it a water deficit region. 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. The lakes and the playas have brackish water which is the main source of obtaining salt.

i. Where does the Indian Desert lie and why it is known as Marusthali? (1)

ii. What evidence shows that the Great Indian Desert was submerged in the sea? (1)

iii. How many different parts of the desert are there depending on their orientation? Explain. (1)

19. Observe the given map and answer the following questions: **[3]**

i. From which glacier in the Kailash range near Mansarovar lake does the Brahmaputra River originate? (1)

ii. Name of the location marked with **A** in the Central Himalayas where the Brahmaputra River carves out a deep gorge and becomes a turbulent and dynamic river? (1)

iii. What are the main left-bank tributaries of Brahmaputra after entering India in Arunachal Pradesh? (1)

20. Name the five countries whose frontiers meet at the northern apex of India. **[3]**

OR

Describe the Westernmost point and Easternmost point of India.

21. Distinguish between Agro-forestry and Farm forestry. **[3]**

22. What is the sole driving force behind all the exogenic processes? Explain how? **[3]**

OR

Distinguish between the Rock and Soil.

23. Differentiate between: **[3]**

(i) Stalactites and Stalagmites

(ii) Sinkholes and Uvalas.

(iii) Gorge and Canyon

Section C

24. Explain briefly the theory of the **IndoBrahm River** as believed by some geologists. Also mention the two principal grounds on which this theory has been discarded. **[5]**

25. Describe the main characteristics of Indian Plate. **[5]**

OR

What were the major post-drift discoveries that rejuvenated the interest of scientists in the study of distribution of oceans and continents?

26. Describe the factors which control the amount and distribution of salinity in different oceans. **[5]**

OR

Explain the relief features of ocean.

27. Write a detailed note on Coriolis Force. **[5]**

OR

Draw a simplified diagram to show the general circulation of the atmosphere over the globe. What are the possible reasons for the formation of subtropical high pressure over 30^{o}N and S latitudes?

28. What is Global Warming? What are the effects of Global Warming? **[5]**

OR

According to Koeppen, in how many groups can you classify the climate of India?

Section D

29. On the outline map of India, locate and label the following: **[5]**

i. Chota Nagpur plateau

ii. Regions of the soil also known as Regur Soil

iii. Kaveri River

iv. Island located in the Bay of Bengal

v. Biosphere reserve of Manas

30. With the help of the following key, identify the areas marked as A, B, C, D and E on the given outline map of the World. Write the correct name of the place in the blank space given on the map: **[5]**

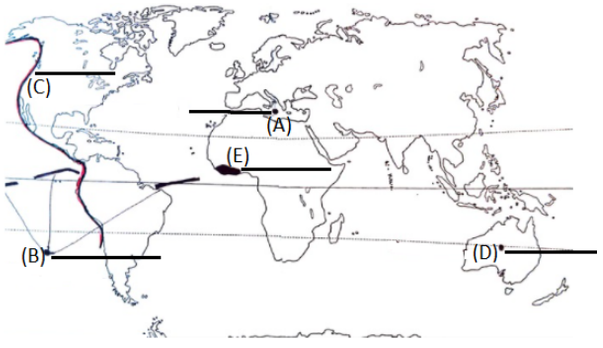
A. This sea records higher salinity due to high evaporation.

B. The air here rises because of convection caused by high insolation and low pressure.

C. This zone located along North America and South America is a seismically active belt of the earthquake epicentre, volcanoes and tectonic plates.

D. This island continent is surrounded on all sides by the oceans and seas.

E. This ecological hotspot is a tropical seasonal forest region of West Africa.



Solution

Section A

1.

(b) Both A and R are true but R is not the correct explanation of A.

Explanation:

Geography in the twentieth century became a discipline that studied the earth's surface from two perspectives - systematic and regional. The systematically produced sub-disciplines like physiography, climate, biography, political geography, economic geography, health geography, etc., while the region gave rise to regional geography, regional science, regional development, regional planning, area planning, etc.

2.

(d) (b) - (ii)

Explanation:

Project Elephant - 1992

3.

(c) Jupiter

Explanation:

Jupiter

4.

(c) Both the statements are true and statement II correctly present the reason for statement I

Explanation:

Both the statements are true and statement II correctly present the reason for statement I

5. **(a)** Why

Explanation:

Why

6.

(c) the temperature of the air

Explanation:

The ability of the air to hold water vapour depends entirely on **its temperature**. After being saturated the air at the given temperature is incapable of holding any additional amount of moisture at that stage.

7.

(c) A is true but R is false.

Explanation:

It is 1,465 km long with a catchment area spreading over 3.13 lakh sq. km 49 percent of this, lies in **Maharashtra**, 20 percent in **Madhya Pradesh and Chhattisgarh,** and the rest in **Andhra Pradesh**.

8.

(c) Convection

Explanation:

Convection

9.

(d) Sri Lanka and Maldives

Explanation:
Sri Lanka and Maldives

10.

(d) Agro- forestry
Explanation:
Agro- forestry

11.

(d) (iv) - (iii) - (ii) - (i)
Explanation:
(iv) - (iii) - (ii) - (i)

12. **(a)** Tropical Deciduous forests
Explanation:
Tropical Deciduous forests

13. **(a)** 32,80,263 sq. km
Explanation:
India with its area of **3.28 million sq. km** accounts for 2.4 percent of the world's land surface area and stands as the seventh-largest country in the world.

14.

(d) (c) - (iii)
Explanation:
Bharathapuzha - Annamalai hills

15. **(c)** Batholiths
Explanation:
Batholiths are the cooled portion of magma chambers.

16. **(b)** Lacccoliths
Explanation:
Lacccoliths

17. **(b)** Sheets
Explanation:
Sheets

Section B

18. i. To the northwest of the Aravali hills lies the Indian desert. It receives low rainfall below 150 mm per year; hence, it has arid climate with low vegetation cover. It is because of these characteristic features that this is also known as Marusthali.
ii. It is believed that during the Mesozoic era, the Great Indian Desert was under the sea. This can be corroborated by the evidence available at wood fossils park at Aakal and marine deposits around Brahmsar, near Jaisalmer.
iii. On the basis of the orientation, the desert can be divided into two parts: the northern part is sloping towards Sindh and the southern towards the Rann of Kachchh.

19. i. The Brahmaputra, one of the largest rivers in the world, has its origin in the **Chemayungdung glacier** of the Kailash range near Mansarovar Lake.
ii. Namcha Barwa
iii. It enters India west of Sadiya town in Arunachal Pradesh. Flowing southwest, it receives its main left bank tributaries, viz., **Dibang or Sikang and Lohit**; thereafter, it is known as the Brahmaputra.

20. On the northern side of India, the boundaries of the following five countries meet together- China, Russia, Tajakistan, Afghanistan and Pakistan. These five countries meet at the apex of the north Indian triangle. This apex, Pamir knot is called the roof of the world.

OR

East-west extent: India has an east-west extent of about 3,000 km. Its westernmost point lies on a creek in the salty marshes of the Rann of Kutchh. The Easternmost point lies in the forested hills where the boundaries of Myanmar, China and India meet.

21. Agroforestry means to plant trees and crops at the same time on cultivated land and barren land. Agriculture and forestry go together so that fodder, fuel, timber, fruit, and crops can be obtained at the same time. Community forestry includes afforestation in public places, pastures, temples, along canals and in schools. It connects, landless labourers with forestry. Farm Forestry includes the growing of trees for commercial and non-commercial purposes, buildings of trees are distributed free of cost. Trees are grown on marginal grasslands, pastures, cowsheds, etc.
22. The exogenic processes derive their energy from atmosphere determined by the ultimate
    energy from the sun and also the gradients
    created by tectonic factors.
    The kinetic energy forms the basic driving force for erosion and transportation. The gravitational force of the earth aids in all exogenic processes, as without gravity and gradients (slopes) there would be no mobility and hence no erosion, transportation and deposition.
    Gravitational force acts upon all earth
    materials having a sloping surface and tend to produce movement of matter in down slope direction. Besides the gravitational stress earth materials become subjected to molecular stresses that may be caused by a number of factors amongst which temperature changes, crystallisation and melting are the most common.

    OR

    Rock and Soil: Any natural solid inorganic or organic material out of which the crust of the earth is formed is called a rock. But the soil is the uppermost covering of the rocks. These rocks break up and rock particles are formed. These particles constitute soils. Rocks are an aggregate of minerals. These minerals of the parent rock form the inorganic matter in soils. Soils are limited in depth. These are found up to a depth of 2 to 3 metres, but rocks have a greater depth. Rocks are found in the interior parts, while the soil is found only on the outer surface of the earth.
23. (i) Stalactites and Stalagmites

.	Stalactites	Stalagmites
Defination	stalactite is a type of formation that hangs from the ceiling of caves, hot springs, or manmade structures such as bridges and mines.	A stalagmite is a type of rock formation that rises from the floor of a cave due to the accumulation of material deposited on the floor from ceiling drippings
Formation	Where mineralized water or another transmitting liquid drips from a cave ceiling.	It may take the shape of a disc, a column with either a smooth, rounded bulging end.
Direction	From ceiling, downwards	From ground, upwards

(ii) Sinkholes and Urallas

Sinkholes	Uvalas
A Sinkholes is an opening more or less circular at the top and funnel – shaped towards the bottom.	When sink holes and dolines join together because of slumping of material along their margins the Uvalas are formed.
Sinkholes tend to occur in karat andscapes.Karst landscapes can have up to thousands of sinkholes within a small area, giving the landscape a pock-marked appearance. These sinkholes drain all the water, so there are only subterranean river in these areas. Examples of karst landscapes with a plethora of massive sinkholes include Khammouan Mountains (Laos) and Mamo Plateau (Papua New Guinea).	It is a morphological form frequently found in the “Outer Dinarides” anywhere between Slovenia and Greece. But large closed karst depressions are found on all continents in different landscapes.

(iii) Gorge and Canyon.

(a) A gorge is a deep valley with very steep to straight sides and a canyon is characterized by steep step-like side slopes and may be as deep as a gorge.

(b) A gorge is almost equal in width at its top as well as its bottom. In contrast, a canyon is wider at its top than at its bottom. In fact, canyon is a variant of gorge.

(c) Example, canyons commonly form in horizontal bedded sedimentary rocks and gorge form in hard rocks.

Section C

24. **The Indo-Brahm River Theory:** The Indus, the Ganga, and Brahmputra river systems have been evolved over a long course of time. These rivers rise in Tibet i.e. in trans Himalayas. These rivers flow parallel to the main axis of the Himalayas. These rivers are older than the Himalayas themselves. Some of the geologists believe that before the uplift of the Himalayas, a mighty stream flowed from Assam to Punjab, all along the foot of the Himalayas. The stream is referred to as 'Shiwalik' or the Indo-Brahm River'.

    Due to the uplift of the Potwar Plateau, the direction of this river was reversed. The river was dismembered into three river systems of Indus, Ganga, and Brahmputra. The Yamuna began to flow as a tributary of the Ganga. Due to headward erosion, the Ganga took a southerly course.

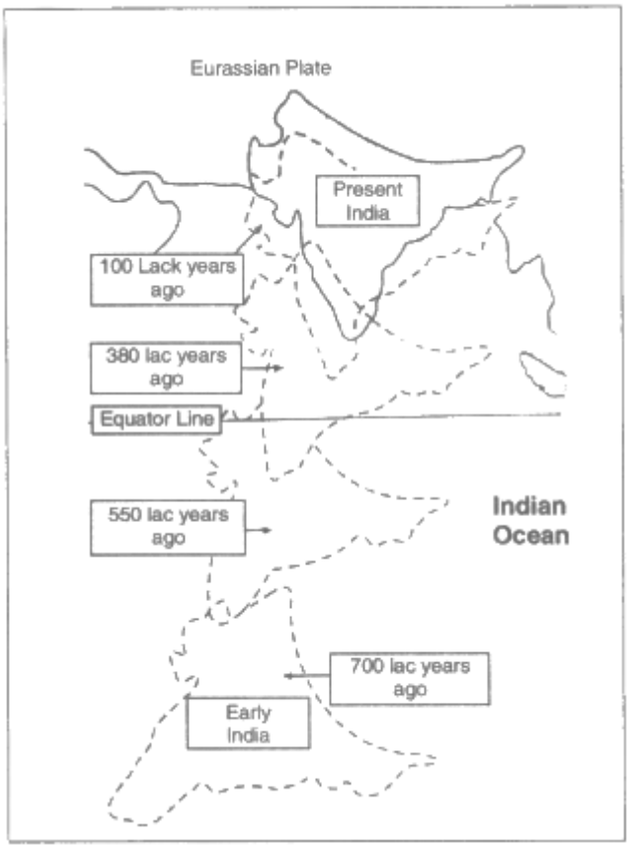
    Criticism: The concept of the Indo-Brahm river has been challenged on many grounds, even then the theory cannot be discarded.

    i. It is not necessary to visualize such a mighty stream to explain the alluvial deposits of Shiwaliks. These might have been formed by alluvial fans.

    ii. The alluvial deposits between Rajmahal Hills and Shillong plateaus should have been laid down over a much longer period.

25. **Movement of the Indian Plate: Boundaries:** The Indian plate includes Peninsular India and Australian continental portions. The northern plate boundary is marked by the subduction zone along the Himalayas (continent-continent convergence) and it extends through Arakanyoma of Burma towards the island arc along Java Trench. The eastern margin is a spreading site lying to the east of Australia in the form of the oceanic ridge in SW Pacific. The Western margin follows Kirtar Mountain of Pakistan and extending through the Makrana coast coincides with the spreading site extending from the Red seas rift southeastward along the Chagos Archipelago. The boundary between India and the Antarctic plate is also marked by an oceanic ridge running in roughly W-E direction and merging into the spreading site little south of New Zealand.

    Position of Indian Sub-continent: It is now a well-established fact that the Indian subcontinent, or to be precise Peninsular India, formed a part of Gondwana land, the southern protocontinent. This includes South America, Africa-India, Antarctica, and Australia. The assembly of these continents as suggested by Smith and Hallam (1970) has received wider acceptance. India is the northernmost member of this southern configuration and thus is supposed to have undergone the maximum amount of northward drift. The Tethys lying in the north of this assembly appears not as a major ocean but a narrow sea.



    It is assumed that 20 crore years ago when Pangea was sub-divided, the Indian plate started drifting northward. About 4-5 crore years ago, the Indian plate collided with the Eurasian Plate, and the Himalayas were uplifted out of the Tethys. About 14 crore years ago, the Indian subcontinent was located at 50° south latitudes. Tethys separated two plates. Tibetan block was nearer to the Asian landmass. An import even took place during the drifting of the Indian plate. Deccan trap was formed out of lava. It started about 6 crore years ago and continued for a long time. About 4 crore years ago the Himalayas were formed and the process is still going on. The Himalayas are still rising.

OR

A number of discoveries during the post-war period added new information to geological literature. Particularly, the information collected from the ocean floor mapping provided new dimensions for the study of the distribution of oceans and continents.

i. These currents are generated due to radioactive elements causing thermal differences in the mantle portion. Holmes argued that there exists a system of such currents in the entire mantle portion. This was an attempt to provide an explanation to the issue of force, on the basis of which contemporary scientists discarded the continental drift theory.
ii. Detailed research of the ocean configuration revealed that the ocean floor is not just a vast plain but it is full of relief.
iii. Expeditions to map the oceanic floor in the post-war period provided a detailed picture of the ocean relief and indicated the existence of submerged mountain ranges as well as deep trenches, mostly
iv. located closest to the continental margins.
v. The mid-oceanic ridges were found to be most active m terms of volcanic eruptions. The dating of the rocks from the oceanic crust revealed the fact that they are much younger than the continental areas,
vi. Rocks on either side of the crest of oceanic ridges and having equidistant locations from the crest were found to have remarkable similarities both in terms of their constituents and their age.

26. Seawater is always saline, but the degree of salinity is not everywhere the same. The average salinity of the oceans is 35%o or about 35 parts of salts in 1000 parts of water.

i. **The Rate of evaporation:** Salinity is directly related to the rate of evaporation. The rate of evaporation increases with high temperatures, strong winds, less rainy days, and low humidity. Within the tropics, salinity is high due to high temperature. The temperate oceans have low salinity due to low temperatures.
ii. **Supply of freshwater:** The supply of freshwater reduces the salinity. The amount of freshwater is added by rainfall, melting of ice, and large rivers. The salinity is low in equatorial regions due to heavy rainfall. Near the mouths of large rivers like Amazon, Zaire, Niger, low salinity is found. Low salinity is found in the North Sea and Baltic Sea because much freshwater is added from the melting of ice.
iii. **Mixing of water:** There is free mixing of water in open seas due to movements of water by currents, waves, and tides. It reduces the salinity locally. In wholly or partially enclosed seas such as the Caspian Sea, Mediterranean Sea, water does not mix freely with ocean water and high salinity is found. In areas of inland drainage or lakes, salts, accumulate and increase the salinity.
iv. **Atmospheric Pressure and winds:** Warm and dry winds increase the rate of evaporation and salinity. In areas of high pressure, descending winds increase the evaporation due to which salinity is high.
v. **Movements of seawater:** Ocean currents, waves, and tides increase or reduce the local salinity by mixing water. Salinity, temperature, and density of water are interrelated. Any change in temperature or density influences the salinity of an area.

OR

The oceans are confined to the great depressions of the earth's outer layer. The oceans, unlike the continents, merge so naturally into one another that it is hard to demarcate them.The oceanic part of the earth have been classified into five oceans by geographers:

The Pacific, the Atlantic, the Indian, Southern ocean and the Arctic. The various bays,gulfs,seas and other inlets are parts of these four large oceans. Between 3-6 km below the sea level a major portion of the ocean floor is found.The 'land' under the waters of the oceans, i.e, the ocean floor exhibits complex and varied features as those observed over the land. The floors of the oceans are rugged with the world's largest mountain ranges, deepest trenches and the largest plains. These features are formed by the factors of volcanic,tectonic and depositional processes like those of the continents.

27. The direction of surface winds is usually controlled by the pressure gradient and rotation of the earth. Because of rotation of the earth along its axis the winds are deflected. The force which deflects the direction of winds is called deflection force. This force is also called coriolis force on the basis of famous scientist G.G. Coriolis.

Because of coriolis force all the winds are deflected to the right in the northern hemisphere while they are deflected to the left in the southern hemisphere with respect to the rotating earth. This is why winds blow counter-clockwise around the centre of low pressure (to make cyclonic circulation) in the northern hemisphere while they blow clockwise in the southern hemisphere.

Characteristics of Coriolis force are:

1) Coriolis force is not in itself a force rather is an effect of rotational movement of the earth.

2) Coriolis force becomes effective on any object which is in motion (i.e., wind, flying birds, aircrafts, ballistic missiles, long-range artillery fire etc.).

(3) Coriolis force affects wind direction and not the wind speed as it deflects the wind (and other moving objects) direction from expected path.

(4) The magnitude of Coriolis force is determined by wind speed. The higher the wind speed, the greater is the deflection of wind direction due to resultant greater deflective (Coriolis) force.

5) It becomes maximum at the poles due to minimum rotational speed of the earth while it becomes zero at the equator.

(6) It always acts at right angles to the horizontally moving air and other moving objects. The net effects is that the horizontal winds are deflected to the right in the northern hemisphere and to the left in the southern hemisphere.

OR

The general circulation of the atmosphere also sets in motion the ocean water circulation which influences the earth's climate. The general circulation of the atmosphere also affects the oceans. The large-scale winds of the atmosphere initiate large and slow-moving currents of the ocean, which in turn provide input of energy and water vapour into the air. These interactions take place rather slowly over a large part of the ocean. The air at the Inter-Tropical Convergence Zone (ITCZ) rises because of convection caused by high insolation and low pressure is created. The winds from the tropics converge at this low-pressure zone. The converged air rises along with the convective cell. It reaches the top of the troposphere up to an altitude of 14 km. and moves towards the poles. This causes accumulation of air at about 30° N and S. Part of the accumulated air sinks to the ground and forms a subtropical high. Another reason for sinking is the cooling of air when it reaches 30° N and S latitudes.

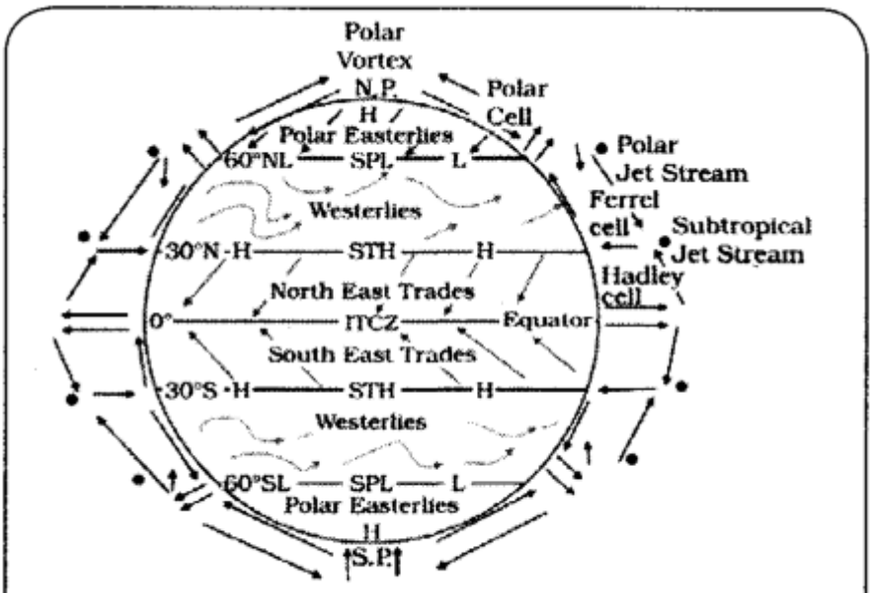


Fig: Simplified general circulation of the atmosphere

28. Due to global warming, the polar ice caps and mountain glaciers would melt and the amount of water in the ocean would increase. It leads to a rise in the sea level and the melting of glaciers and sea-ice due to warming.

Effects of Global Warming are:

i. Sea level will rise 48 cm by the end of the twenty-first century.
ii. Increase the incidence of annual flooding.
iii. Insect-borne diseases like malaria, and leads to shifting in climatic boundaries, making some regions wetter and other dries.
iv. The agricultural pattern would shift and the human population, as well as the ecosystem, would experience change.
v. Peninsular India would be submerged.
vi. Global warming refers to the increase in average ground temperatures on earth. These higher temperatures across the planet are caused by an intensification of the greenhouse effect.

OR

Koeppen identified a close relationship between the distribution of vegetation and climate. He selected certain values of temperature and precipitation and related them to the distribution of vegetation and used these values for classifying the climates. Koeppen introduced the use of capital and small letters to designate climatic groups and types. Koeppen recognised five major climatic groups, four of them are based on temperature and one on precipitation.

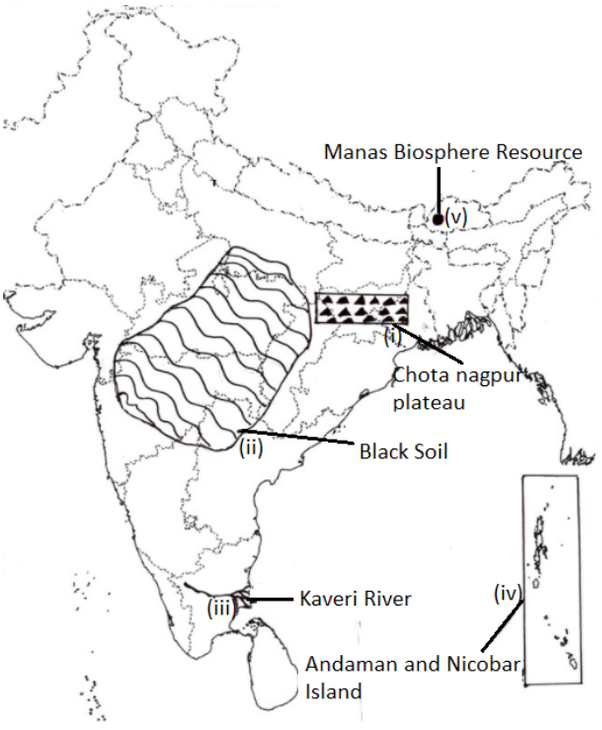
i. Tropical climates.
ii. Dry climates.
iii. Warm temperate climates.
iv. Cool temperate climates.
v. Ice climates.

Classification of Indian climatic regions:

i. **Amw:** Monsoon with a short dry season. **Areas:** West coast oflndia south of Goa.
ii. **As:** Monsoon with dry summer. **Areas:** Coromandel coast of Tamil Nadu.
iii. **Aw:** Tropical savannah. **Areas:** Most of the Peninsular plateaus, south of the Tropic of Cancer.
iv. **Bwhw:** Semi-arid steppe climate. **Areas:** North-western Gujarat, some parts of western Rajasthan and Punjab.
v. **Bwhw:** Hot desert. **Areas:** Extreme western Rajasthan.
vi. **Cwg:** Monsoon with dry winter. **Areas:** Ganga plain, eastern Rajasthan, northern Madhya Pradesh, most of North-east India.
vii. **Dfc:** Cold humid winter with short summer. **Areas:** Arunachal Pradesh.
viii. **E:** Polar type. **Areas:** Jammu and Kashmir, Himachal Pradesh and Uttarakhand.

Section D

29. i. **Chota Nagpur plateau:** Covers much of Jharkhand state as well as adjacent parts of Odisha, West Bengal, and Chhattisgarh.
ii. **Black soil:** Includes parts of Maharashtra, Madhya Pradesh, Gujarat, Andhra Pradesh, and some parts of Tamil Nadu.
iii. **Kaveri River:** Rises on Brahmagiri Hill of the Western Ghats in southwestern Karnataka state.
iv. **Andaman and Nicobar Islands:** Located in the Bay of Bengal.
v. **Manas:** Located at the foothills of the Bhutan - Himalayas in the state of Assam.



30. A. The Mediterranean Sea
B. Inter-Tropical Convergence Zone (ITCZ)
C. Ring of Fire
D. Australia
E. Upper Guinean forests