

Class XI Session 2025-26
Subject - Geography
Sample Question Paper - 7

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):** In the regional approach, the world is divided into regions at different hierarchical levels and then all the geographical phenomena in a particular region are studied. [1]

Reason (R): The phenomena in a region are studied in a holistic manner searching for unity in diversity.

- a) Both A and R are true and R is the correct explanation of A.

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

d) A is false but R is true.

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

Type of Vegetation	Trees
(a) Moist deciduous forests	(i) Blue pine and spruce
(b) Dry deciduous forests	(ii) Teak and sal
(c) Tropical Thorn Forests	(iii) Neem and khejri
(d) Montane Forests	(iv) Babool and ber

- a) (c) - (iii)

c) (b) - (ii)
- b) (d) - (iv)

d) (a) - (i)

3. Which of the following planet is known as Jovian planet? [1]
 a) Jupiter b) Mercury
 c) Earth d) Venus
4. Consider the following statements and choose the correct option from the given options [1]
 I. It is a common occurrence to see one region suffer from floods in one season and from drought in the next.
 II. This is primarily due to the large-scale variations and unpredictable behaviour of the Indian monsoon.
 a) Both the statements are true and statement II correctly present the reason for statement I b) Only statement I is correct
 c) Both the statements I and II are incorrect d) Only Statement II is correct
5. Which of the following is not studied under population geography? [1]
 a) Population Density b) Migration and Occupational Structure
 c) Pollution d) Sex Ratio
6. The temperature at which saturation occurs in a given sample of air is known as what? [1]
 a) Dew b) Saturation
 c) Dew Point d) Humidity
7. **Assertion (A):** The Satluj is a very important tributary. [1]
Reason (R): It is the easternmost tributary of the Indus River.
 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. The insolation received by the earth is in short waves forms and heats up its surface is called [1]
 a) Advection b) Terrestrial radiation
 c) Insolation d) Conduction
9. India shares its international boundary with Bangladesh of [1]
 a) 3,310 km b) 3,917 km
 c) 4,096 km d) 1,752 km
10. Which one of the following was the purpose of Project Tiger? [1]
 a) To make films on tigers b) To kill tigers
 c) To put tigers in the Zoo d) To protect tigers from illegal hunting
11. Arrange the following in correct sequence: [1]
 i. The Bay of Bengal branch strikes the coast of Myanmar and part of southeast Bangladesh. But the Arakan Hills along the coast of Myanmar deflect a big portion of this branch towards the Indian subcontinent.
 ii. It's one branch moves westward along the Ganga plains reaching as far as the Punjab plains. The other branch moves up the Brahmaputra valley in the north and the northeast, causing widespread rains.
 iii. From here, this branch splits into two under the influence of the Himalayas and the thermal low is northwest India.



iv. The monsoon, therefore, enters West Bengal and Bangladesh from south and southeast instead of from the south-westerly direction.

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

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

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

12. Khar, Neem, Khejri, Palas are:

[1]

- a) Tropical forests

b) Mangroves
- c) Tropical Thorn forests

d) Evergreen forests

13. The smallest state is

[1]

- a) Uttar Pradesh

b) Assam
- c) Rajasthan

d) Goa

14. Which of the following pairs is matched correctly?

[1]

River	Place of Origin
(a) Indus	(i) Sulaiman ranges
(b) Beas	(ii) Bokhar Chu
(c) Satluj	(iii) Raksas tal
(d) Ghagra	(iv) Peninsular plateau

- a) (a) - (i)

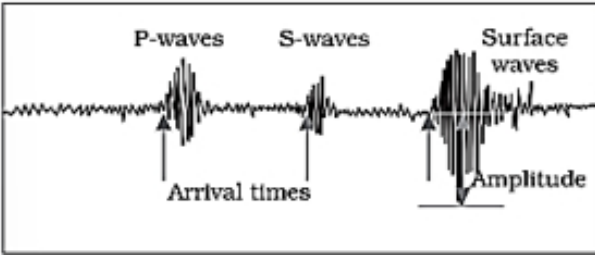
b) (c) - (iii)
- c) (b) - (ii)

d) (d) - (iv)

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. What is depicted in the diagram above?
- a) A curve depicting earthquake waves.

b) An illustration of tides and tidal wave patterns.
- c) A graphical representation of ocean waves.

d) Oceanic waves caused by lunar gravitational pull.

16. Which of the following is a correct classification of earthquake waves?
- a) Oceanic waves and surface waves

b) Body waves and surface waves
- c) Primary waves and secondary waves

d) Seismic waves and tidal waves

17. Which of the following is correct with reference to P-waves?
- a) P-waves can travel only through solid

b) P-waves are also known as secondary

materials.

waves.

c) P-waves travel slower than S-waves.

d) P-waves are similar to sound waves.

Section B

18. Read the following text carefully and answer the questions that follow:

[3]

The northern plains are formed by the alluvial deposits brought by the rivers - the Indus, the Ganga and the Brahmaputra. These plains extend approximately 3,200 km from the east to the west. The average width of these plains varies between 150-300 km. The maximum depth of alluvium deposits varies between 1,000-2,000 m. From the north to the south, these can be divided into three major zones: the Bhabar, the Tarai and the alluvial plains. The alluvial plains can be further divided into the Khadar and the Bhangar. Bhabar is a narrow belt ranging between 8-10 km parallel to the Shiwalik foothills at the break-up of the slope. As a result of this, the streams and rivers coming from the mountains deposit heavy materials of rocks and boulders, and at times, disappear in this zone. South of the Bhabar is the Tarai belt, with an approximate width of 10-20 km where most of the streams and rivers re-emerge without having any properly demarcated channel, thereby, creating marshy and swampy conditions known as the Tarai. This has a luxurious growth of natural vegetation and houses a varied wildlife. The south of Tarai is a belt consisting of old and new alluvial deposits known as the Bhangar and Khadar respectively. These plains have characteristic features of mature stage of fluvial erosional and depositional landforms such as sand bars, meanders, oxbow lakes and braided channels. The Brahmaputra plains are known for their riverine islands and sand bars. Most of these areas are subjected to periodic floods and shifting river courses forming braided streams.

- Based on the variations in relief from north to south, the Northern Plains are split in how many zones. Name them. (1)
- According to their age, how are alluvial soils classified? Explain. (1)
- Which river systems contributed to the formation of the Northern Plains? (1)

19. Observe the given map and answer the following questions:

[3]



- Near which location in Jammu and Kashmir does the Indus River cut across the Ladakh range, forming a spectacular gorge? (1)
- Name the origination point of Indus River marked as A. (1)
- The Indus receives a number of Himalayan tributaries.** Name any one tributary indicated in the map. (1)

20. What are the implications of India having a long coastline?

[3]

OR

Why North South is longer by 300 km as compared to East West extent?

21. As an individual how will you contribute in conservation of forests and wildlife?

[3]

22. Deposition is the result of erosion. Explain.

[3]

OR

What is humus? How is it formed? What is its significance in soil formation?

23. What are the causes behind formation of river meander landform? [3]

Section C

24. Suppose you are travelling from Haridwar to Siliguri along the foothills of the Himalayas. Name the important rivers you will come across. Describe the characteristics of any one of them. [5]

25. What is the major difference between the transform boundary, the convergent and divergent boundaries of plates? [5]

OR

Explain the Plate Tectonic Theory and its mechanism.

26. How are various elements of the hydrological cycle interrelated? [5]

OR

What do you mean by salinity of oceans? Describe the distribution of salinity in different oceans?

27. Draw labelled diagrams to explain: [5]

- i. Land and sea breezes
- ii. Mountain and valley winds
- iii. Chinook and Foehn winds

OR

Compare and contrast the tropical cyclones and temperate cyclones.

28. Explain the impact of Global Warming. [5]

OR

How many distinct seasons are found in India as per the Indian Meteorological Department? Discuss the weather conditions associated with any one season in detail.

Section D

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

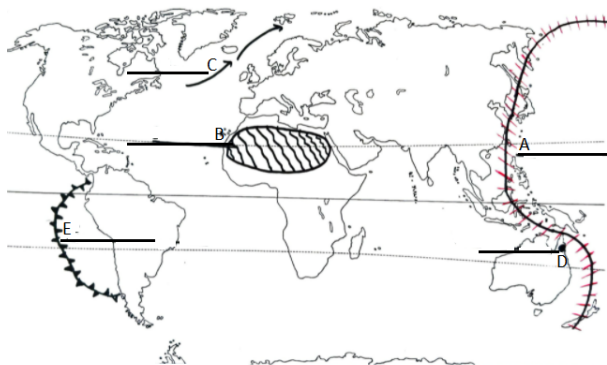
- i. Southern-most point of mainland India
- ii. Biosphere Reserve of Achanakmar-Amarkantak
- iii. BWhw hot desert regions according to Koppen's Scheme
- iv. Areas of Montane forests
- v. The river that flows in a rift valley





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. Name this seismically active belt passing from Japan, Philippines, Australia, Papua New Guinea, Indonesia, New Zealand, and Antarctica.
- B. Included in World Biomes is a hot and dry desert in Africa.
- C. This is a strong warm current within the Atlantic Ocean that extends the Gulf Stream northeastward.
- D. This ecological hotspot is located in Australia.
- E. This tectonic plate is between South America and the Pacific plate.



Solution

Section A

1.
(b) Both A and R are true but R is not the correct explanation of A.
Explanation:
The regions could be classified based on a single factor like relief, rainfall, vegetation, per capita income or there could also be multi-factor regions formed by the association of two or more factors. Administrative units like states, districts, and taluks can also be treated as regions.
2. **(a)** (c) - (iii)
Explanation:
Tropical Thorn Forests - Neem and khejri
3. **(a)** Jupiter
Explanation:
Jupiter
4. **(a)** 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.
(c) Pollution
Explanation:
Pollution
6.
(c) Dew Point
Explanation:
Dew Point
7.
(b) Both A and R are true but R is not the correct explanation of A.
Explanation:
The Bhakra Dam is built around the river Sutlej to provide irrigation and other facilities to the states of Punjab, Rajasthan, and Haryana.
8.
(b) Terrestrial radiation
Explanation: Terrestrial radiation
9.
(c) 4,096 km
Explanation:
Bangladesh and India share a **4,096-kilometre** long international border, the fifth-longest land border in the world.
10.
(d) To protect tigers from illegal hunting
Explanation:
Project Tiger was launched in 1973 to conserve tigers in their habitat in a sustainable manner. The main objective of the scheme is to ensure the maintenance of the viable population of tigers in India for scientific, aesthetic, cultural and ecological



values. Also to preserve areas of biological importance as a natural heritage for the benefit, education and enjoyment of the people.

11. **(a)** (i) - (iv) - (iii) - (ii)

Explanation:

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

12.

- (c)** Tropical Thorn forests

Explanation:

Important species of **tropical thorn forests** are babool, ber, and wild date palm, khair, neem, khejri, palas, etc.

13.

- (d)** Goa

Explanation:

Goa is the smallest according to the area with 3,702 sq km area. It occupies 0.11% of the total land of the country.

14.

- (b)** (c) - (iii)

Explanation:

Satluj - Raksas tal

15. **(a)** A curve depicting earthquake waves.

Explanation:

A curve depicting earthquake waves.

16. **(b)** Body waves and surface waves

Explanation:

Earthquake waves are basically of two types — body waves and surface waves.

17. **(d)** P-waves are similar to sound waves.

Explanation:

The P-waves are similar to sound waves. They travel through gaseous, liquid and solid materials.

Section B

18. i. From the north to the south, these can be divided into three major zones: the Bhabar, the Tarai and the alluvial plains. The alluvial plains can be further divided into the Khadar and the Bhangar. (1)
ii. According to their age, alluvial soils can be classified as old alluvial (Bhangar) and new alluvial (Khadar). (1)
iii. The northern plains are formed by the alluvial deposits brought by the rivers – the Indus, the Ganga and the Brahmaputra. (1)
19. i. Gilgit
ii. It originates from **a glacier near Bokhar Chu** in the Tibetan region at an altitude of 4,164 m in the Kailash Mountain range.
iii. Shyok, the Gilgit, the Zaskar, the Hunza. [Any 1]
20. The total length of Coastline is 7,516.6 kilometer and hence India is benefited as follows :
- India is a southward extension of the Asian continent. The trans Indian Ocean routes connecting the countries of East Asia and Europe in the west provide a strategic central location to India.
 - The Deccan Peninsular protrudes into the Indian Ocean as a result it helps India to establish close contact with Africa, West Asia and Europe from the Western coast and with East Asia and Southeast Asia from the Eastern coast.
 - No other country has the longest coastline on the Indian Ocean as India has and indeed, it is India's eminent position in the Indian Ocean which justifies the naming of an Ocean after it.

OR

1. The actual distance measured from east to west is only 2933 kilometer while the distance from north to south is 3,214 kilometer.
2. This difference is based on the fact that the distance between two longitudes decreases towards the poles whereas the distance between two latitudes remains the same everywhere.



21. Wildlife conservation has a very large ambit with unbounded potential for the well-being of humankind. However, this can be achieved only when every individual understands its significance and contributes his bit.
For the purpose of effective conservation of flora and fauna, special steps can be taken by each individual:
- We can participate in Van Mahotsav and pledge to plant a tree every year.
 - We may stop people from killing domestic animals in our surroundings like a cow, goats, etc.
 - We can create awareness among people about the importance of trees and wildlife for us.
22. Deposition is a consequence of erosion. There are four main agents of erosion. Moving water, wind, gravity, and ice wear away or break up rocks, sediments, and soil from the land's surface. When these materials are deposited or dropped in new places, it is called deposition. The erosional agents lose their velocity and hence energy on gentler slopes and the materials carried by them start to settle themselves. In other words, deposition is not actually the work of any agent. The coarser materials get deposited first and finer ones later. By deposition depressions get filled up. The same erosional agents viz., running water, glaciers, wind, waves and groundwater act as aggradational or depositional agents also.

OR

Humus is a dark substance formed in soils. It is a dead organic matter formed by the decay of animals and plants. Trees, shrubs, grass, and bacteria help in the formation of humus. In warmer climates, humus is destroyed by countless bacteria. In colder areas, soils are rich in humus and it is collected in the soil. Tropical humid soils are poor in humus because it is consumed by bacteria.

Humus is vital to the fertility of soils. It provides nitrogen, phosphorus, and calcium to the soils. It sustains other forms of life. It helps the weathering of minerals to add to the fertility of soils. It increases the water-holding capacity of soils.

23. A meander is one of a series of regular sinuous curves, bends, loops, turns, or windings in the channel of a river, stream, or other watercourse. It is produced by a stream or river swinging from side to side as it flows across its floodplain or shifts its channel within a valley.

The causes behind meander formation are

- Propensity of water flowing over very gentle gradients to work laterally on the banks.
- Unconsolidated nature of alluvial deposits making up the banks with many irregularities which can be used by water exerting pressure.
- Coriolis force acting on the fluid water deflecting, it like it deflects the wind.

The river erodes sediment on the outside of the curves and drops it on the inside of curves. This is because the water moves fastest on the outside of a turn. Water does this because it tries to find the path with the weakest resistance. Slip off slopes are formed on the inside of the bend from deposition and river cliffs are formed on the outside of the bend from erosion. Eventually meanders turn into ox-bow lakes when two outside bends erode together making a shorter route for the water.

Section C

24. While travelling from Haridwar to Siliguri along the foothills of the Himalayas, we shall come across Gomti, Saryu, Ramganga, Sharda, Gandak, Old Gandak, Kamla, Bagmati, Kosi and Ganga.

The Ganga is the most important river of India both from the point of view of its basin and cultural significance. It rises in the Gangotri glacier near Gaumukh which is 3,900 m high from sea level in the Uttarkashi district of Uttarakhand. It is known as the Bhagirathi in this region. At Devaprayag, the Bhagirathi meets the Alaknanda; hereafter, it is known as the Ganga. The Ganga enters the plains at Haridwar. From here, it 'flows first to the South' then to the south-east and east before splitting into two distributaries, namely the Bhagirathi and the Hugli. The river has a length of 2,525 km. It is shared by Uttarakhand (110 km) and Uttar Pradesh (1,450 km), Bihar (445 km) and West Bengal (520 km). The Ganga basin covers about 8.6 lakh sq. km area in India alone. The Ganga river system is the largest in India has a number of perennial and non-perennial rivers originating in the Himalayas in the north and the Peninsula in the south, respectively. The Yamuna joins the Ganga at Prayag (Allahabad). It is joined by the Chambal, the Sind, the Betwa and the Ken on its right bank which originates from the Peninsular plateau while the Hindan, the Rind the Sengar, the Varuna, etc. join it on its left bank. Much of its water feeds the western and eastern Yamuna and the Agra canals for irrigation purposes.

25. **The major difference between the transform boundary and the convergent or divergent boundaries of plates are as follows:**

- Transform Boundaries:** Where the crust is neither produced nor destroyed as the plates slide horizontally past each other. Transform faults are the planes of separation generally perpendicular to the mid-oceanic ridges.
- Convergent Boundaries:** Where the crust is destroyed as one plate dived under another, it is called convergent boundaries. The location where the sinking of a plate occurs is called a subduction zone.
- Divergent Boundaries:** Where the new crust is generated as the plates pull away from each other, these are called divergent boundaries. The sites where the plates move away from each other are called spreading sites. At this, the American Plate is



separated from the Eurasian and African Plates.

OR

A **tectonic plate**, also called a **lithospheric plate**, is a massive, irregularly-shaped slab of solid rock, generally composed of both continental and oceanic lithosphere. According to the **theory of plate tectonics**, Earth's outer shell is divided into several plates that glide over the mantle, the rocky inner layer above the core. A plate may be referred to as the continental plate or oceanic plate depending on which of the two occupy a larger portion of the plate, each topped by its own kind of crust. The Earth's lithosphere is composed of seven or eight major plates (depending on how they are defined) and many minor plates.

Its mechanism: Two plates meet at a **plate boundary**. When these plates meet, their relative motion and the way it meets, determine the type of boundary like convergent, divergent, or transform. There are three types of plate boundaries. Plates can drift away from each other forming a **divergent** boundary (The sites where the plates move away from each other are called **spreading sites**). These plates can move towards each other causing a **convergent** boundary (The location where the sinking of a plate occurs is called a **subduction zone**). Finally, they can slide past each other and **transform** the boundary altogether. Here crust is neither produced nor destroyed as the plates slide horizontally past each other and this process is also affected by the rotation of the earth.

26. Water is a cyclic resource. It can be used and re-used. Water also undergoes a cycle from the atmosphere, land surface and subsurface and the organisms. About 71 percent of the planetary water is found in the oceans. The remaining is held as freshwater in glaciers and ice caps, groundwater sources, lakes, soil moisture, atmosphere, streams and within life. Nearly 59 percent of the water that falls on land returns to the atmosphere through evaporation from over the oceans as well as from other places. The remainder runs-off on the surface infiltrates into the ground or a part of it becomes a glacier. The renewable water on the earth is constant while the demand is increasing tremendously. This leads to the water crisis in different parts of the world - spatially and temporally. The pollution of river waters has further aggravated the crisis.

OR

Salinity: Seawater contains a large number of salts in solution. The degree of the saltiness of water is known as salinity. It is expressed as a percentage or as parts per thousand. Salinity is the ratio between the weight of the dissolved material and the total weight of the seawater. The average salinity of the oceans is 35‰. It means that on average every 1000 gms. of seawater contains about 35 gms. of salt. The degree of saltiness varies in different oceans, but the proportions of different salts remain constant in all oceans. Sodium chloride (77.7 percent) is the most abundant salt. Seawater also contains compounds of calcium, magnesium, and potassium.

Distribution of salinity: The distribution of salinity depends upon evaporation, supply of fresh water, and mixing of water by surface and sub-surface currents. The upper limit of salinity in brackish water is 24.7%.

- i. **Salinity in open seas:** In open seas, the differences in salinity are relatively small. (33‰ to 37‰).

- a. Near the Equator. Salinity is below average (34‰) near the equator.

Reasons:

- Heavy rainfall
- Greater cloudiness
- High relative humidity
- Calm air
- Low rate of evaporation
- Large supply of freshwater by rivers like Amazon, Niger, Zaire, etc.

- b. Near the tropics. The area of the highest (37‰) salinity lies near the tropics.

Reasons:

- High evaporation due to clear skies and high temperatures
- Dry trade winds
- Low rainfall
- Absence of big rivers. In hot and dry regions it reaches 70‰

- c. Near the Poles. In polar areas, the salinity decreases from 20‰ to 30‰. In the Arctic sea, it is 0 - 35‰. But the North Sea has a high salinity due to north Atlantic drift.

Reasons:

- Low evaporation due to cold air
- Large supply of freshwater by rivers
- Melting of snow and icebergs
- More rainfall due to westerlies

- ii. **Salinity in wholly or partially enclosed seas:** Variation of salinity is well marked in wholly or partially enclosed seas.



- a. The Mediterranean Sea has a high salinity (39‰). In the Red Sea salinity exceeds 40‰, the Suez Gulf (41‰) and the Persian Gulf (38‰) have salinity above the average.

Reasons:

- Rapid evaporation
- Dry summers
- Absence of big rivers
- Dry air
- Cloudless skies

- b. In the Black Sea, the salinity is 18‰.

The Baltic Sea has an average salinity of 7‰ and drops to a very low of 2‰. Due to the influx of freshwater. The Bay of Bengal has low salinity due to the high fresh supply of water, but the Arabian Sea has high salinity due to low inflow of water.

Reasons:

- Less evaporation due to low temperature
- Large supply of water due to many rivers
- Melting of snow
- A number of big rivers like Danube, Dniester, Dnieper, and Don flowing into Black Sea.

- iii. **Salinity in lakes and inland seas:** The salinity in inland seas and lakes is very high. Salinity is in those enclosed seas in which rivers bring a large supply of freshwater. The northern part of the Caspian Sea has a low salinity of 13‰ due to river Volga, but it is 170‰ in the Gulf of Kara-Bogaz.

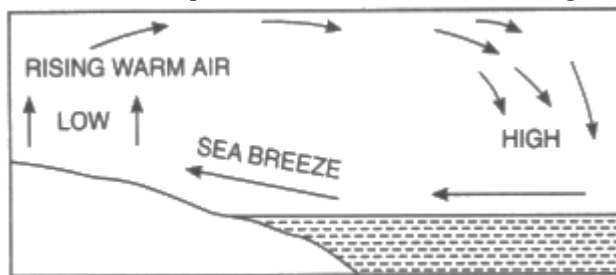
Salt Lake (U.S.A.) has a salinity of 220‰. The highest salinity is found in Lake Van (Turkey) with 330‰. The Dead Sea has a salinity of 238‰. The density of water is so high that it is impossible to sink in the Dead Sea. The salt lakes are becoming saltier with the passage of time.

Reasons for high salinity:

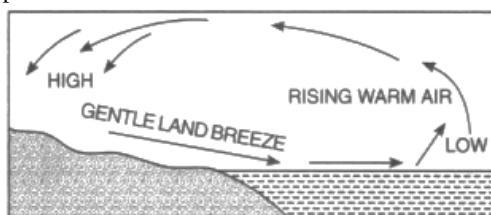
- High temperature
- Rate of evaporation is high
- Accumulation of salt due to evaporation
- Absence of an outlet

27. i. **Land and sea breezes:**

- a. **Sea Breeze**— During the daytime, the land rapidly heated up than the sea. The warm air rises to form a low pressure locally on land. The sea being cooler develops a high pressure. So a cool sea breeze blows from sea to land. Sea breeze moderates the temperature of the coastal areas resulting in an equable or maritime climate.



- b. **Land Breeze:** During the night the land becomes cooler than the sea. The cold and heavy air produces a local high pressure on land.

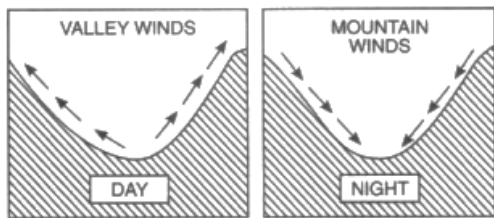


The sea remains comparatively warmer with low pressure. Therefore, a land breeze blows from land to sea.

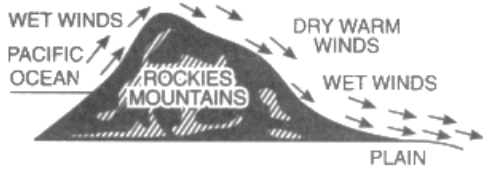
ii. **Mountain and valley winds:**

- a. **Mountain winds.** In hilly areas, cold and dense air blowing down-valley slope during the night are called mountain winds. It is known as air-drainage or Katabatic winds.





- b. Valley winds—In hilly areas, the warm winds ascending up the valley slopes during the day, are called valley winds. These ascending winds are known as valley winds or Anabatic winds



iii. Chinook and Foehn winds:

- a. Chinook winds: Chinook winds are experienced on the eastern slopes of the Rockies and prairies in the U.S.A. and Canada. The westerlies after crossing the Rockies are known as Chinook winds. They raise the temperature of the area by 15°C to 20°C in a couple of hours. Chinook means ‘a snow eater’ as it melts snow rapidly under its influence.
- b. Foehn winds: Foehn is a warm dry wind blowing across the Alps down the valleys in Switzerland in spring. It melts snow rapidly and hastens the growth of crops. These winds make the winters mild.

OR

Tropical Cyclones	Temperate Cyclones
Location: Tropical cyclones occur between 5° and 30° latitudes within the tropics.	Temperate cyclones are found in the temperate region between 35° and 65° latitudes.
Direction: The tropical cyclones move along with trade winds from east to west.	Temperate cyclones move along with westerlies from west to east.
Size: These cyclones cover a small area with a diameter between 150 to 500 km.	These are extensive and have a vertical thickness from 9 to 1 km and a diameter of about 1000 km.
Shape: These are circular and symmetrical in shape.	These are generally circular or elongated troughs.
Origin: Tropical cyclones are thermal in origin and develop due to local convection currents.	These are frontal in origin and develop due to meeting of a warm, tropical and cold polar air mass.
Weather: The sky is overcast with violent winds and heavy rainfall. The stormy weather lasts for some hours.	The weather is variable with cold air, extensive clouds. Rainfall is slow and lasts for many days.

28. The climate of the world has changed in the past and is changing at present. It is said that due to global warming the polar ice caps and mountain glaciers would melt and the amount of water in the ocean would increase.

Carbon dioxide is the major cause of global warming. It is due to the burning of fossil fuels. There are other greenhouse gases also like methane, chlorofluorocarbons, ozone, nitric oxide. These gases are more effective at enhancing the greenhouse effect. These gases are contributing to global warming.

The mean annual surface temperature of the earth in the past 150 years has increased. It is projected that by the year 2100, global temperature will warm about 2°C .

This rise in temperature will accompany many other changes: one of these is a rise in sea level, as glacier and sea ice melt in response to warming. According to the current prediction on average, the sea level will rise 48 cm by the end of the twenty-first century. This would increase the incidence of annual flooding. The climatic change would promote insect born diseases like malaria, and lead to shifting in climatic boundaries, making some regions wetter and others drier. The agricultural pattern would shift and the human population, as well as the ecosystem, would experience change. If the sea level rises 50 cm above the present sea level many areas will be submerged.

OR

In India as per the Indian Meteorological Department, there are four distinct seasons:

- Winter Season (from December to February).
- Summer Season (from March to May).
- Southwest monsoon season (from June to September).

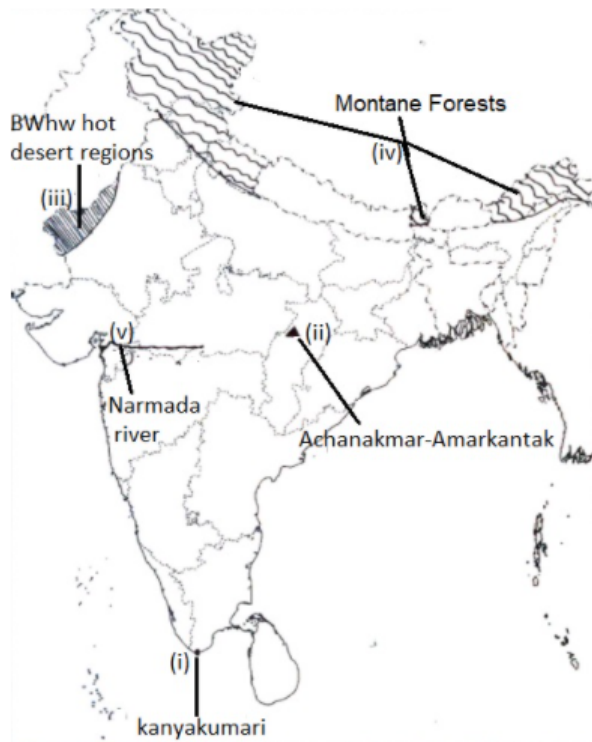
iv. Retreating Monsoon (from October to November).

Summer Season: April, May, and June are the months of summer in north India. In most parts of India, temperatures recorded are between 30°-32°C. In March, the highest day temperature of about 38°C occurs in the Deccan Plateau while in April, temperature ranging between 38°C and 43°C are found in Gujarat and Madhya Pradesh. In May the heat belt moves further north, and in the northwestern part of India, temperatures around 48° C are not uncommon.

The hot weather season in south India is mild and not too intense as found in north India. The Peninsular situation of south India with a moderating effect of the oceans keeps the temperatures lower than that prevailing in north India. Therefore, temperatures remain between 26°C and 32°C. Due to altitude, the temperatures in the hills of Western Ghats remain below 25°C. In the coastal regions; temperature does not decrease from north to south rather it increases from the coast to the interior.

Section D

29. i. **Kanyakumari:** Located in the southernmost tip of Tamil Nadu state.
ii. **Achanakmar-Amarkantak:** Located in Chhattisgarh state.
iii. **BWhw hot desert regions:** Areas of Extreme western Rajasthan.
iv. **Areas of Montane forests:** Jammu & Kashmir, Himachal Pradesh, Uttranchal, Sikkim, Arunachal Pradesh.
v. **Narmada:** Located in Madhya Pradesh and Gujarat state.



30. A. Ring of Fire (Circum-Pacific Belt)
B. Sahara Desert
C. North Atlantic Drift
D. Queensland
E. Nazca Plate

