

Climate and Natural Vegetation of India



Exercise

I. Choose the Correct Answer:

1. **Western disturbances cause rainfall in _____.**
a) Tamilnadu b) Kerala
c) Punjab d) Madhya Pradesh **Ans: c) Punjab**
2. **_____ helps in quick ripening of mangoes along the coast of Kerala and Karnataka.**
a) Loo b) Norwester
c) Mango showers d) Jet stream **Ans: c) Mango showers**
3. **_____ is a line joining the places of equal rainfall.**
a) sohyets b) Isobar
c) Isotherm d) Latitudes **Ans: a) Isohyets**
4. **Climate of India is labelled as _____.**
a) Tropical humid b) Equatorial Climate
c) Tropical Monsoon Climate d) Temperate Climate
Ans: c) Tropical monsoon climate
5. **The monsoon forests are otherwise called as _____.**
a) Tropical evergreen forest b) Deciduous forest
c) Mangrove forest d) Mountain forest **Ans: b) Deciduous forest**
6. **Sesahachalam hills, a Biosphere reserve is situated in _____.**
a) Tamil Nadu b) Andhra Pradesh
c) Madhya Pradesh d) Karnataka **Ans: b) Andhra Pradesh.**
7. **_____ is a part of the world network biosphere reserves of UNESCO**
a) Nilgiri b) Agasthiyamalai
c) Great Nicobar d) Kachch **Ans: a) Nilgiaris**

II. Match the following:

- | | | |
|---------------------------|---|--------------------------------------|
| 1. Sundarbans | – | a) Desert and semi desert vegetation |
| 2. Biodiversity hotspot | – | b) October - December |
| 3. North east monsoon | – | c) Littoral forest |
| 4. Tropical thorn forests | – | d) West Beangal |
| 5. Coastal forests | – | e) The Himalayas |

Ans: 1. d, 2. e, 3. b, 4. a, 5. c**III Consider the given statements and choose the correct option from the given below ones**

1. **Assertion(A)** : The Himalayas acts as a climatic barrier.
Reason(R) : The Himalayas prevents cold winds from central Asia and keep the Indian Sub-continent warm.(Give option for this questions)
- a) Both (A) and (R) are true: R explains A
 b) Both (A) and (R) are true: R does not explain A
 c) (A) is true (R) is false
 d) (A) is false (R) is true

Ans: a) Both (A) and (R) are true; R explains A**IV. Choose the inappropriate answer:**

1. **Tidal forests are found in and around _____.**
 (a) Desert (b) The deltas of Ganga and Brahmaputra
 (c) The delta of Godavari (d) The delta of Mahanadhi **Ans: a) Desert**
2. **Climate of India is affected by _____.**
 (a) Latitudinal extent (b) Altitude
 (c) Distance from the sea (d) Soil **Ans: d) Soil**

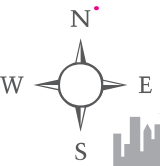
V. Answer briefly:**1. List the factors affecting climate of India.**

The climate of India is affected by the following factors-

- | | | |
|-----------------|-----------------------|---------------------------|
| • Latitude | • Altitude, | • Distance from the seas, |
| • Monsoon wind, | • Relief features and | • Jet stream. |

2. What is meant by 'normal lapse rate'?

- The temperature decreases when the altitude increases,.
- The temperature decreases at the rate of 6.5 C for every 1000 metres of ascent.
- This is known as 'Normal lapse rate'.



3. What are 'jet streams'?

- Jet streams are the fast moving winds blowing in a narrow zone in the upper atmosphere.
- According to the Jet stream theory, the onset of southwest monsoon is driven by shift of the subtropical westerly jet from the plains of India towards the Tibetan plateau.
- The easterly jet streams cause tropical depressions both during Southwest monsoon and retreating monsoon.

4. Write a short note on 'Monsoon wind'.

- The word 'monsoon' is derived from the Arabic word 'Mausim' which means season.
- Originally this word was used by the Arab navigators several centuries ago.
- It is used to describe a system of seasonal reversal of winds along the shores of the Indian Ocean especially over the Arabian sea.
- It blows from the South-west to North-east during summer and from the North-east to South-west during winter.

5. Name the four distinct seasons of India.

The four distinct seasons of India are-

- Winter or Cold weather season
- Pre Monsoon or Summer or Hot weather season
- South-west monsoon or Rainy season
- North-east monsoon season.

6. What is 'burst of monsoon'?

- The sudden approach of monsoon wind over South India with lightning and thunder is termed as the 'Break' or 'Burst of monsoon'.
- It lowers the temperature of India to a large extent.
- The monsoon wind strikes against the Southern tip of Indian land mass and get divided into two branches namely the Arabian Sea branch and Bay of Bengal branch.

7. Name the areas which receive heavy rainfall.

The heavy rainfall areas of India are-

- The Western Coast,
- Assam,
- South Meghalaya,
- Tripura, Nagaland and
- Arunachal Pradesh

8. State the places of mangrove forests in India.

- These forests occur in and around the deltas, estuaries and creeks prone to tidal influence.
- The delta of the Ganga-Brahmaputra has the largest mangrove forest.



- Mangrove forests are also found in the deltas of Mahanadi, Godavari and Krishna rivers.

9. Write any five biosphere reserves in India.

S.No	Biosphere reserves	State
1	Gulf of Mannar	Tamil Nadu
2	The Nilgiris	Tamil Nadu
3	Agasthyamalai	Kerala
4	Sundarbans	West Bengal
5	Cold desert	Himachal Pradesh

VI. Distinguish between the following

1. Weather and Climate

S.No	Weather	Climate
1.	Weather is the state of the atmosphere at a particular place and time.	Climate is the average of weather for a long period of time at any place.
2.	Weather of a place many change daily.	Climate of a place remains for a long period of time
3.	On a particular day, the temperature of Mumbai and Pune may be same.	Generally, the climate of Mumbai and Pune considerably differ.

2. Tropical Evergreen Forest and Deciduous Forest.

S.No	Tropical Evergreen forest	Deciduous forest
1.	These forests are found in the region where the annual rainfall is more than 200 cm.	These forests are found in the area where the annual rainfall is between 100 cm and 200 cm.
2.	The trees found in this forest never shed their leaves.	The trees in this forest shed their leaves during spring and early summer
3.	This forest is also called as Evergreen forest.	This forest is also known as Monsoon forest.

3. North East Monsoon and South West Monsoon.

S.No	North-east monsoon	South-west monsoon
1..	This monsoon winds blow from the land to sea.	These winds blow from the sea to land.
2.	This monsoon winds are the retreat (coming back) winds of Southwest monsoon.	South-west monsoon originate from Indian ocean.



3.	The period of the North-east monsoon is from October and November.	The period of South-west monsoon is from June to September.
4.	It gives rainfall only to Coromandal coast.	It gives heavy rainfall to most of the parts of India.

VII. Give Reasons:

1. Western Coastal plain is narrow.

- Western Coastal Plain lies between the Western Ghats and the Arabian Sea.
- The distance between Arabian Sea and the Western Ghats is less. So, the width of the coastal plain is narrow.

2. India has a tropical monsoon climate.

- High temperatures during summers and dry winters are some of the characteristics of the Tropical Monsoon types of climate.
- India has a tropical monsoon climate because most of India lies in the tropical belt.

3. Mountains are cooler than the plains.

- The temperature decreases when the altitude increases.
- Temperature decreases at the rate of 6.5 C for every 1000 metres of ascent.
- So, the places in the mountains are cooler than the places on the plains.

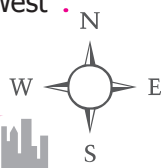
VIII. Answer in detail:

1. Write about South West Monsoon.

- The Southwest monsoon is the most significant feature of the Indian climate.
- The onset of the monsoon takes place normally by the first week of June and covers the whole country by 15th July.
- Prior to the onset of the Southwest monsoon, the temperature in North India reaches up to 46° C.
- The sudden approach of monsoon wind over South India with lightning and thunder is termed as the 'Burst of monsoon'.
- It lowers the temperature of India to a large extent. The monsoon wind strikes against the Southern tip of Indian land mass and gets divided into two branches. They are-
 - i) Arabian sea branch
 - ii) Bay of Bengal branch

i) Arabian sea branch:

- The Arabian Sea branch of Southwest monsoon gives heavy rainfall of the West coast of India as it is located in the windward side of the Western Ghats.



- The other part which advances towards North is obstructed by Himalayan mountains and results in heavy rainfall in North.
- As the Aravalli Mountain is located parallel to the wind direction, Rajasthan and Western part do not get much rainfall from this branch.

ii) Bay of Bengal branch:

- The wind from Bay of Bengal branch moves towards North-east India and Myanmar.
- This wind is trapped by a chain of mountains and gives heavy rainfall to the Eastern states.
- Later on, this wind travel towards West which results in decreases in rainfall from east to West.

2. Describe the forests of India.

The climate, soil and landform characteristics are the important environment controls of natural vegetation. On the basis of the above factors, the natural vegetation of India can be divided in to the following types.

Tropical evergreen forest:

- These forests are found in the region where the annual rainfall is more than 200 cm
- Karnataka, Kerala, Andaman-Nicobar islands, Assam, West Bengal and the Eastern states have this type of forests.
- The most important trees of these forests are rubber, mahogany, ebony, rosewood, coconut, chinchona, iron wood and cedar.
- These forests are not fully exploited due to lack of transport facilities.

Tropical Deciduous forest:

- These forests are found in the region with the annual rainfall of 100 to 200 cm.
- Punjab, Haryana, Uttar Pradesh, Bihar, Jharkhand, Madhya Pradesh, Chattisgarh, Maharashtra, Karnataka and Telangana states have these forests.
- The most important trees of these forests are sandalwood, rosewood, amla, padauk, bamboo, etc.
- These forests are called as 'Monsoon forests'.

Tropical Dry forest:

- These forests are found in the areas with 50 to 100 cm annual rainfall.
- Rajasthan, Haryana, Punjab, Western Uttar Pradesh, Western Karnataka and East Tamilnadu have these forests.
- The important vegetations are amaltas, banyan, bamboo, babool, etc,
- These forests are known as 'Tropical thorn forest'.



Mountain forest:

- These forests are found in the mountainous ranges. On the basis of altitude and amount of rainfall, these forests are classified in to two.
- They are i) Eastern Himalayan forest and ii) Western Himalayan forest
- The Eastern Himalayan forests are found on the slopes of the mountains of North-eastern states.
- The Western Himalayan forests are found in the states of Jammu and Kashmir, Himachal Pradesh and Uttarakhand.

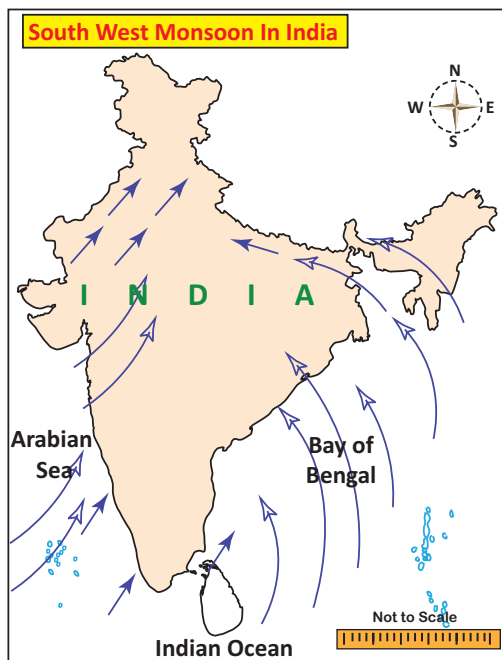
Other types:

- Alpine forests are found in the slopes of Himalayas with about 2400 m altitude.
- Tidal forest found in and around the deltas and estuaries. These forests are known as 'Sundarbans'.
- Coastal forests or Littoral forests found along the coasts of Kerala and Goa.
- These forests are found along the rivers on Khadar areas.

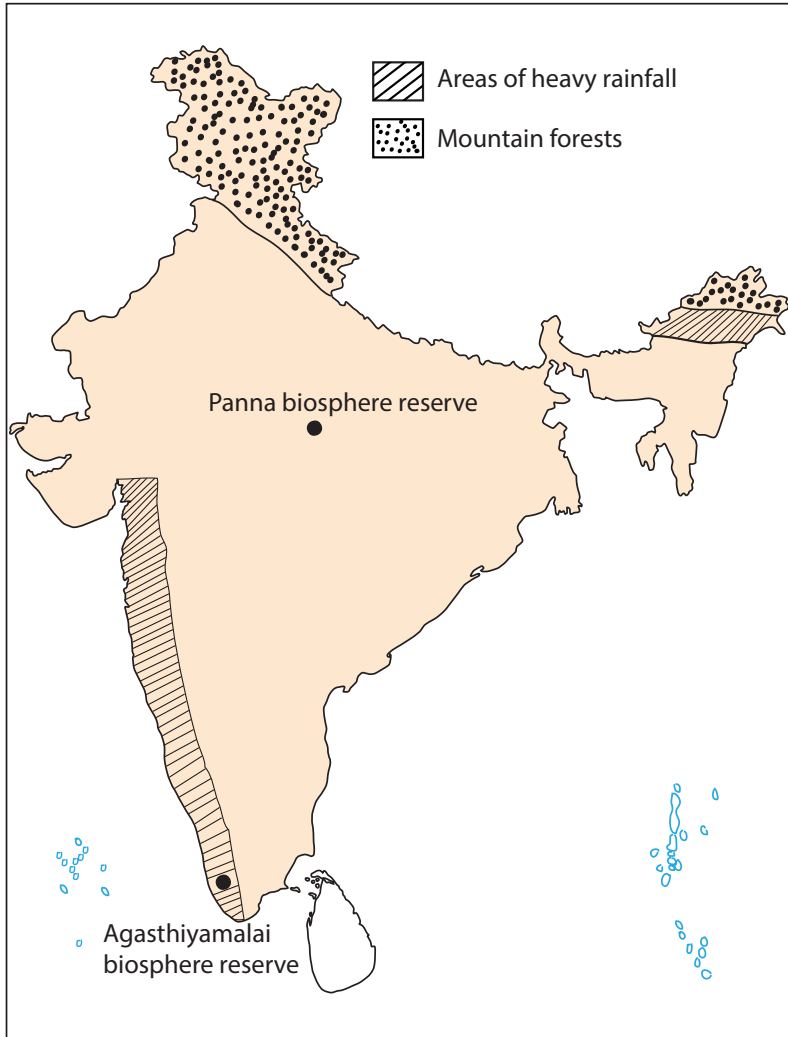
XI. Map Exercises

Mark the following on the outline map of India.

1. Direction of South West Monsoon wind.
2. Direction of North East Monsoon wind.



3. Areas of heavy rainfall.
4. Mountain forests.
5. Panna biosphere reserve
6. Agasthiyamalai biosphere reserve



ADDITIONAL QUESTIONS

I. Choose the Correct Answer:

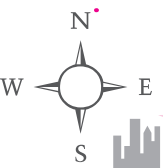
1. **Meteorology is the science of _____.**

- | | |
|--------------|-----------|
| a) Weather | b) Social |
| c) Political | d) Human |

Ans: a) Weather

2. **We wear cotton during _____.**

- | | |
|-----------------------|-----------|
| a) North-east monsoon | b) Winter |
|-----------------------|-----------|



Ans: d) Summer

3. The _____ divides the country into two equal halves.

b) Equator

d) North Pole

Ans: c) Tropic of Cancer

4. The temperature _____ at the rate of 6.5°C for every 1000 metres of ascent.

b) Increase

d) Normal

Ans: c) Decrease

5. Temperature decreases at the rate of _____ for every 1000 metres of ascent.

b) 6.5°C

d) 2°C

Ans: b) 6.5°C

6. The places located in the higher altitudes have _____ climate.

b) Humid

d) Cool

Ans: d) Cool

7. The most dominant factor that affects the climate of India is the _____.

b) Monsoon winds

d) Ultra violet rays

Ans: b) Monsoon winds

8. Weather refers to the state of _____ of a place at a given point of time.

b) Monsoon

d) Atmosphere

Ans: d) Atmosphere

9. The Himalayas acts as a barrier to the freezing cold wind blows from _____.

b) China

d) Arctic region

Ans: a) Central Asia

10. The word monsoon has been derived from the _____ word 'Mausim'.

b) French

d) Greeck

Ans: c) Arabic,

11. The Arabic word 'Mausim' means _____.

b) Season

d) Sun

Ans: b) Season

12. _____ desert is the driest place on the Earth.

b) Sahara

d) Siberian

Ans: c) Atacama

13. The fast moving winds blowing in a narrow zone in the upper atmosphere is called _____.

- a) Breeze
- b) Jet streams
- c) Monsoon winds
- d) Hot winds

Ans: b) Jet streams

14. During summer solstice, the sun's rays fall vertically over the _____.

- a) Tropic of Capricorn
- b) Tropic of Cancer
- c) Polar region
- d) Equator

Ans: a) Tropic of Cancer

15. During _____ season, the vertical rays of the Sun falls over Tropic of Capricorn.

- a) Summer
- b) Winter
- c) Rainy
- d) Autumn

Ans: b) Winter

16. During _____ season, the vertical rays of the Sun falls over the Peninsular India.

- a) Summer
- b) Winter
- c) Rainy
- d) Autumn

Ans: a) Summer

17. The 'Mango Showers' helps in quick ripening of mangoes along the coast of _____.

- a) Kerala and Karnataka
- b) Kerala and Tamil Nadu
- c) Karnataka and Tamil Nadu
- d) Andhra Pradesh and Tamil Nadu.

Ans: a) Kerala and Karnataka

18. The sudden approach of monsoon wind over South India with lightning and thunder is termed as the _____.

- a) Pre Monsoon
- b) Burst of monsoon
- c) Kalbaisakhi
- d) Mongo Showes

Ans: b) Burst of monsoon

19. _____ is the place which receives highest rainfall in the world.

- a) Chirapunji
- b) Jaipur
- c) Mawsynram
- d) Doddabetta

Ans: c) Mawsynram

20. Mawsynram, the place that receives highest rainfall in the world is located in _____.

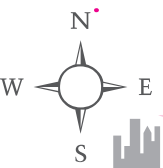
- a) Assam
- b) Mizoram
- c) Nagaland
- d) Meghalaya

Ans: d) Meghalaya

21. Overall about 75% of Indian rainfall is received from _____ monsoon.

- a) South-west
- b) North-east
- c) South-east
- d) North-west

Ans: a) South-west



Ans: b) 118 cm

Ans: b) 1141 cm

Ans: a) Natural vegetation.

Ans: b) Tropical Evergreen

Ans: c) Monsoon

Ans: a) Thorn.

Ans: a) Eastern

Ans: b) Tidal

Ans: d) Mangrove

Ans: b) Wildlife

b) 1950



c) 1952

d) 1955

Ans: c) 1952

33. The Government of India enacted Wildlife (Protection) Act in the year _____.

a) 1958

b) 1972

c) 1952

d) 1975

Ans: b) 1972

34. To conserve the tigers, Government of India launched a project called _____.

a) Project Tiger

b) Conserve Tiger

c) Protect Tiger

d) Preserve Tiger

Ans: a) Project Tiger

35. To conserve the tigers, Government launched 'Project Tiger' in _____.

a) 1947

b) 1950

c) 1973

d) 1990

Ans: c) 1973

36. Wildlife Research Institute of India is located at _____.

a) Nagpur

b) Dehradun

c) Darjeeling

d) Patiala

Ans: b) Dehradun

37. The Indian government has established _____ Biosphere Reserves in India.

a) 10

b) 15

c) 18

d) 20

Ans: c) 18

II. Match the following:

1. Gulf of Mannar

—

a) Less rainfall

2. Project Tiger

—

b) Bio-sphere

3. Thorn forest

—

c) Driest place

4. Mawsynram

—

d) Protect the tigers

5. Atacama desert

—

e) Highest rainfall

Ans: 1. b, 2. d, 3. a, 4. e, 5. c

6. Equable climate

—

a) Kalbaisakhis

7. Tropic of Cancer

—

b) British climate

8. Leeward side

—

c) Season

9. Mausim

—

d) Rain shadow region

10. Norwesters

—

e) Divides India into two halves.

Ans: 6. b, 7. e, 8. d, 9. c, 10. a

11. Mango Showers

—

a) 6.5 C for every 1000 metres.

12. Leeward side

—

b) Punjab

13. Normal lapse rate

—

c) Karnataka



14. Black Buck – d) Tamil Nadu
15. Nilgiri Tahr – e) Kerala

Ans: 11. e, 12. c, 13. a, 14. b, 15. d

III Consider the given statements and choose the correct option from the given below ones

1. **Assertion (A)** : Monsoons are a complex meteorological phenomenon.
Reason (R) : Meteorologists have developed a number of concepts about the origin of monsoons.
- a) Both (A) and (R) are true; R explains A
b) Both (A) and (R) are true; R does not explain A
c) (A) is correct (R) is false.
d) (A) is false (R) is true **Ans: a) Both (A) and (R) are true; R explains A**
2. **Assertion (A)** : The Riverine forest are found along the rivers of Khadar areas.
Reason (R) : The rivers of Great plains are more prominent for this type of natural vegetation.
- a) Both (A) and (R) are true; R explains A
b) Both (A) and (R) are true; R does not explain A
c) (A) is correct (R) is false.
d) (A) is false (R) is true **Ans: b) Both (A) and (R) are true; R does not explain A**
3. **Assertion (A)** : The mountains are cooler than the places on the plains.
Reason (R) : When the altitude increases, the temperature decreases.
- a) Both (A) and (R) are true; R explains A
b) Both (A) and (R) are true; R does not explain A
c) (A) is correct (R) is false.
d) (A) is false (R) is true **Ans: b) Both (A) and (R) are true; R explains A**
4. **Assertion (A)** : The most dominant factor which affects the climate of India is the monsoon winds.
Reason (R) : During the South-west monsoon, areas on the Eastern slope of Western Ghats receive heavy rainfall.
- a) Both (A) and (R) are true; R explains A
b) Both (A) and (R) are true; R does not explain A
c) (A) is correct (R) is false.
d) (A) is false (R) is true **Ans: c) (A) is correct (R) is false.**



- Natural vegetation refers to a plant community which is unaffected by man either

directly or indirectly.

- Climate, soil and landform characteristics are important environmental controls of natural vegetation.
- It includes all plant life forms such as trees, bushes, herbs and forbs, etc, that grow naturally in an area.

4. Name the states that are known for the Tropical Deciduous Forest.

- Great Plains – Punjab, Haryana, Uttar Pradesh, Bihar and West Bengal
- Central India – Jharkhand, Madhya Pradesh, Chhattisgarh.
- South India – Maharashtra, Karnataka, Telangana, Andhra Pradesh, Tamil Nadu and Kerala.

5. Where can we see the Tropical Evergreen forests?

We can find the Tropical Evergreen forests in the following regions-

- | | | | |
|--------------------------------|-------------|------------|-----------|
| • Western Ghats in Maharashtra | • Karnataka | • Kerala | • Assam |
| • Andaman-Nicobar Islands | • Tripura | • Mizoram | • Manipur |
| • West Bengal | • Meghalaya | • Nagaland | |

6. Name the trees of Tropical Evergreen forest.

The important trees of the Tropical Evergreen Forest are-

- | | | | |
|------------|-------------|-------------|-------------|
| • Rubber | • Rose wood | • Chinchona | • Iron wood |
| • Mahogany | • Coconut | • Candel | • Cedar |
| • Ebony | • Bamboo | • Palm | • Teak |

7. What is 'Project Tiger'?

- The Government of India has taken a lot of efforts to protect wild animals especially tigers.
- One among them measure was 'Project Tiger' which was launched in April 1973.
- Its aim is to conserve tiger population in specifically constituted 'Tiger Reserves' in India.
- This project is benefited tremendously with an increase of 60% from 1973.

8. What are the measures taken by the Indian government to conserve the wildlife?

- The Indian Board for Wildlife (IBWL) was constituted in 1952 to suggest means of protection, conservation and management of wildlife to the government.
- The Government of India enacted Wildlife (Protection) Act in 1972 with the objective of effectively protecting the wild life of the country.
- Its main is to control poaching, smuggling and illegal trade in wildlife and its diversities.



9. What is 'Wildlife sanctuary'?

- Wildlife sanctuary is an area where wild animals and plants are protected.
- It is a declared protected area where very limited human activities are allowed.
- To preserve the wildlife, a network of 102 National Parks and about 515 Wildlife Sanctuaries across the country have been created.

10. Write a note on 'Mango shower'.

- The winds blow from Southwest to Northeast direction because of the atmospheric pressure in Arabian Sea and Bay of Bengal.
- They bring pre-monsoon showers to the West coast during the month of May.
- There are few thunder showers called 'Mango Sh0owers' which helps in quick ripening of mangoes along the coast of Kerala and Karnataka.

VI. Distinguish between the following

1. Windward side and Leeward side of the mountain.

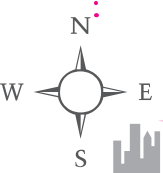
S.No	Windward side	Leeward side
1..	The wind striking side of the mountain is called Windward side.	The other side of the Windward side of the mountain is Leeward side.
2.	Windward side receives heavy rainfall.	It receives very less rainfall.
3.	Kerala and Karnataka coastal areas are lie in the Windward side of the Western Ghats.	Pune and Bangalore are lies in the Leeward side of the Western Ghats.

2. Summer season and Winter season

S.No	Summer season	Winter season
1.	In India, the summer season starts in March and continuous up to May	This season starts in December and extends up to February
2.	During summer, the Sun is overhead in the Tropic of Cancer.	During winter, the Sun is overhead in the Tropic of Capricorn.
3.	In this season, the temperature in North India is very high.	In this season, cold weather prevails in North India.

3. Tropical Deciduous forest and Tropical Dry forest.

S.No	Tropical Deciduous forest	Tropical Dry forest
1.	This forest is found in the region with the annual rainfall of 100 to 200 cm.	This forest is found in the areas with 50 to 100 cm annual rainfall.
2.	This forest is also known as Monsoon forest.	This type forest is known as Tropical thorn forest.



3	Rubber, mahogany, ebony, rosewood, etc., are notable trees found in this forest.	Banyan, bamboo, babool, Palas, etc, are the important trees of this forest.
4.	The trees found in this forest are economically very useful.	The trees in this forest are not economically useful.

VII. Give Reasons:

1. The annual temperature of Delhi is higher than Kochi.

- Distance from the sea is one of the main factors that influence the climate of a place.
- Here, Kochi is located on the Western coast whereas Delhi is located in the interior part of India.
- So, the annual temperature of Delhi is higher than Kochi.

2. The amount of rainfall in Kolkata is more than Bikaner,

- Air near the coast has more moisture and greater potential to produce precipitation.
- Kolkata is located near the coast and Bikaner is located in the interior part of the country.
- So, Kolkata gets 119 cm rainfall whereas Bikaner gets just 24 cm of rainfall.

3. Mumbai gets a heavy rainfall and Pune gets less rainfall.

- The moister laden winds give heavy rainfall to Western Coastal region.
- Mumbai gets heavy rainfall as it lies on windward side of the Western Ghats.
- But, Pune gets less than 50 cm of rainfall as it lies on the leeward side of the Western Ghats.

4. Equable climate is called 'British climate'.

Equable climate is also called as the British climate, which is neither too hot nor too cold.

VIII. Answer in detail:

1. Explain any four factors that affects the climate of India.

The climate of a place is determined by the following factors-

- Latitude
- Altitude
- Distance from the sea
- Monsoon wind
- Relief features and
- Jet stream



i) Latitude:

- The Tropic of Cancer divides the country into two equal halves.
- The area located to the South of Tropic of Cancer experiences high temperature and no severe cold throughout year.
- The area to the North of this parallel enjoys sub-tropical climate. Here, summer temperature may rise about 40°C and it is close to freezing point during winter.

ii) Altitude:

- The temperature of a place decreases when the altitude increases.
- Hence, places in the mountains are cooler than the places on the plains.
- That is why the places located at higher altitudes even in South India have cool climate.

iii) Distance from the sea:

- Distance from the sea not only affects temperature but also the amount of rainfall.
- North India experiences much seasonal variation in temperature due to the absence of influence of seas. For example, the annual temperature of Kochi is lesser than Delhi.
- Air near the coast has more moisture and greater potential to produce precipitation. So, Kolkata which is located near the coast gets heavy rainfall than Bikaner.

iv) Monsoon wind:

- The most dominant factor which affects the climate of India is the monsoon winds.
- These are seasonal reversal winds and India remains in the influence of these winds.
- The summer season ends in India by the end of May because the onset of Southwest monsoon.
- It brings down the temperature and causes moderate to heavy rainfall to many parts of the country.

v) Relief:

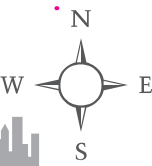
- Relief of India has a great bearing on major elements of climate.
- The Himalayas acts as a barrier to the freezing cold wind blows from Central Asia and keep the Indian subcontinent warm.
- During Southwest monsoon, areas on the Western slope of the Western Ghats receive heavy rainfall.
- On the contrary, vast areas lie in the rain shadow or leeward side of the Western Ghats receive very little rainfall.

vi) Jet streams:

- Jet streams are the fast moving winds blowing in a narrow zone in the upper atmosphere.



- The easterly jet streams cause tropical depressions both during Southwest monsoon and retreating monsoon.



UNIT TEST – 2

Climate and Natural Vegetation of India

Time : 45 mts.

Marks: 40

I. Choose the correct answer:

6×1=6

1. Western disturbances cause rainfall in _____.

- a) Tamilnadu b) Kerala c) Punjab d) Madhya Pradesh

2. _____ helps in quick ripening of mangoes along the coast of Kerala and Karnataka.

- a) Loo b) Norwester c) Mango showers d) Jet stream

3. _____ is a line joining the places of equal rainfall.

- a) Isohyets b) Isobar c) Isotherm d) Latitudes

4. Sesahachalam hills, a Biosphere reserve is situated in _____.

- a) Tamilnadu b) Andhra Pradesh c) Madhya Pradesh d) Karnataka

5. _____ is a part of the world network biosphere reserves of UNESCO.

- a) Nilgiri b) Agasthiyamalai c) Great Nicobar d) Kachch

6. Temperature decreases at the rate of _____ for every 1000 metres of ascent.

- a) 10.5°C b) 6.5°C c) 7.5°C d) 2°C

II. Match the following:

5×1=5

- | | | |
|--------------------|---|-----------------------|
| 7. Gulf of Mannar | – | a) Less rainfall |
| 8. Project Tiger | – | b) Bio-sphere |
| 9. Thorn forest | – | c) Driest place |
| 10. Mawsynram | – | d) Protect the tigers |
| 11. Atacama desert | – | e) Highest rainfall |

III. Distinguish between the following:

2×2=4

12. Tropical Evergreen forest and Deciduous forest.
13. North-east Monsoon and South-west Monsoon .

IV. Answer in brief:

5×2=10

14. What are the factors affecting climate of India.
15. What is meant by 'normal lapse rate'?
16. What is 'burst monsoon'?
17. Write any five biosphere reserves in India.



18. Give reason: a) Western Coastal plain is narrow.
b) Mountains are cooler than the plains.

V. Answer any one in a paragraph:

1×5=5

19. Write about South-west Monsoon.
20. Describe the forests of India.

VI. Map work:

10×1=10

21. On the outline map of India, mark the following-
- i) Direction of South-west Monsoon wind (2)
 - ii) Direction of North-east monsoon (2)
 - iii) An area of heavy rainfall region (2)
 - iv) An area of mountain forest (1)
 - v) An area of desert/thorn forest (1)
 - vi) Panna biosphere reserve (1)
 - vii) Eastern Coastal Plain (1)

