

THE PENINSULAR RIVERS

The Peninsular drainage system is older than the Himalayan one. This is evident from the broad, largely-graded shallow valleys, and the maturity of the rivers. Peninsular rivers are characterized by fixed course, absence of meanders, small drainage basin and non-perennial flow of water. The main water divide in peninsular India is formed by the Western Ghats. Most of the major rivers of the Peninsula flow eastwards and drain into the Bay of Bengal. The Narmada and the Tapi which flow through the rift valley are exceptions.

(a) The Narmada Basin:

(i) The Narmada originates on the western flank of the Amarkantak plateau at a height of about 1,057m. It falls into the Arabian Sea south of Bharuch. The Sardar sarovar project has been constructed on this river.

(ii) Flowing in rift valley between the Satpura in the south and the Vindhyan range in the north the Narmada creates many picturesque locations. The 'Marble rocks', near Jabalpur where the Narmada flows through a deep gorge, and the 'Dhuadhar falls' where the river plunges over steep rocks, are some of the notable ones.

(iii) All the tributaries of the Narmada are very short and most of these join the main stream at right angles. The Narmada basin covers parts of Madhya Pradesh and Gujarat.

(b) The Tapi Basin:

The Tapi originates from Satpura ranges in the Betul district of Madhya Pradesh. Nearly 79 per cent of its basin lies in Maharashtra, 15 per cent in Madhya Pradesh and the remaining 6 per cent in Gujarat. The Tapi flows in a rift valley parallel to the Narmada but it is much shorter in length.

(c) The Godavari Basin :

(i) The Godavari is the largest peninsular river system. It rises from the slopes of the Western Ghats in the Nashik district of Maharashtra. Its length is about 1500 km.

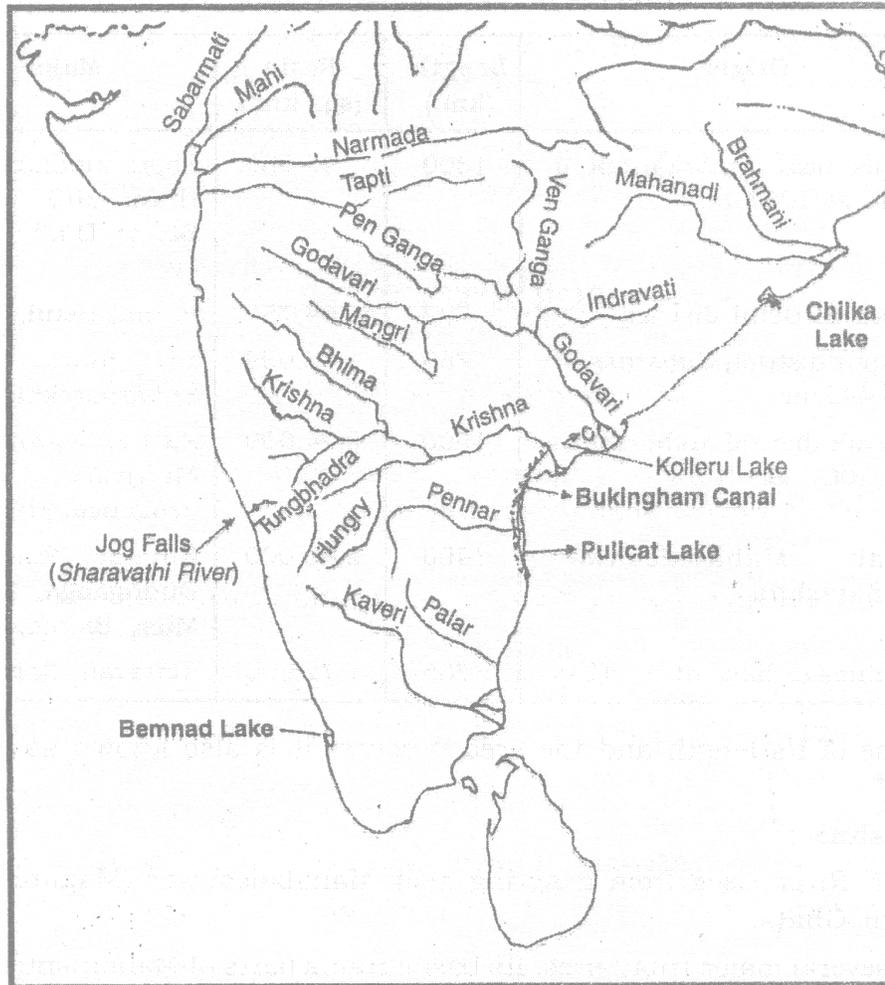
(ii) Because of its length and the area it covers, it is also known as the Dakshin Ganga. Its basin covers parts of Maharashtra, Madhya Pradesh, Orissa and Andhra Pradesh.

(iii) The Godavari is joined by a number of tributaries such as the Penganga, the Preheat, the Manjira, the Wainganga and the Wardha. It finally drains into the Bay of Bengal.

(d) The Mahanadi rises near Sihawa in Raipur district of Chattisgarh and runs through Orissa to discharge its water into Bay of Bengal. Fifty three per cent of the drainage basin of this river lies in Madhya Pradesh and Chattisgarh, while 47 per cent lies in Orissa.

(e) The Krishna is the second largest east-flowing peninsular river which rises near Mahabaleshwar in Sahyadri. Its total length is 1,401 km. The Koyna, the Tungbhadra and the Bhima are its major tributaries.

(f) The Kaveri rises in Brahmagiri hills (3,341m) of Kogadu district in Karnataka. Since the upper catchment area receives rainfall during the southwest monsoon season (summer) and the lower part during the northeast monsoon season (winter), the river carries water throughout the year with comparatively less fluctuation than the other Peninsular rivers. Its important tributaries are the Kabini, the Bhavani and the Amravati.



Peninsular River System.

| | East flowing Rivers of Peninsular | West flowing Rivers of Peninsular |
|---|--|--|
| 1 | Rivers - Mahanadi, Godavari, Krishna and Kaveri flow from west to east into the Bay of Bengal. | Rivers - Narmada and Tapi flow from East to West into the Arabian Sea. |
| 2 | These rivers form fertile deltas along the eastern coast. | These form estuaries on the western coast. |
| 3 | These rivers are longer and drain bigger areas. Their main course is flat area. | These two rivers are shorter as compared to east flowing rivers. They flow through trough and from gorges. |
| 4 | They are rain-fed and depend on rainfall and are seasonal. | They are also rain-fed and are seasonal rivers. |

LAKES

- (i) Sambhar Lake is the largest inland salt lake of India situated in Rajasthan. Other salt lakes in Rajasthan are Didwana, Degana, Pachadra, Kuchaman, Lunakaransar.
- (ii) Lunar Lake situated in Maharashtra is a crater lake.

- (iii) Chilka Lake situated in Puri district of Orissa & south of the Mahanadi delta is the biggest lake of the country.
- (iv) Kolleru Lake is a deltaic lake of Andhra Pradesh situated between the Krishna & Godavari deltas.
- (v) Pulicat Lake situated in the north of Chennai is a shallow lagoon. It has been barred by a long sand spit which is actually Sri Harikota Island.
- (vi) Loktak Lake situated in Manipur is the largest fresh water lake in the North East India. Keibul Lamjao, the only floating National Park of the country is situated here.
- (vii) Vembanad Lake is a lagoon in Kerala and is an important tourist spot. Coconut islands are located in it.
- (viii) Gohna Lake situated near Devprayag in Garhwal has been formed by a huge landslide across a tributary of the Ganga.
- (ix) Wular Lake & Dal Lake are tectonic lakes formed by faulting activities.

(a) Importance of Lakes:

- (i) Lakes are very important to man.
- (ii) A lake helps to regulate the flow of a river.
- (iii) During heavy rainfall they prevent flooding and during the dry season, they help maintain an even flow of water.
- (iv) Lakes are also used for developing hydel power.
- (iv) Lakes are a valuable source of water.
- (v) They moderate the climate of the surrounding areas.
- (vi) They maintain the aquatic ecosystem.
- (vii) They enhance natural beauty, help in developing tourism.
- (viii) They provide recreation through boating and swimming.

ROLE OF RIVERS

- (i) Rivers have formed fertile northern plains and deltas containing alluvial soils which are the most productive agricultural lands of India.
- (ii) Water from rivers is a basic natural resource essential for survival of humans, plants and animals, for agricultural and industrial activities.
- (iii) The banks of rivers have been cradles of civilization all over the world. For example Indus civilization in India.
- (iv) Rivers have provided cultural and economic progress since ancient time.
- (v) Rivers provide inland transportation system. They also dilute and transport wastes from settlements.
- (vi) Industrial development has flourished along rivers. Most of industrial processes depend on water as a raw material, as a coolant and for generating of hydroelectricity.

RIVER POLLUTION

Rapidly growing domestic, Municipal, industrial and agricultural demand for water from rivers naturally affects the quality of water. Today more and more water is drained out of the rivers. It has resulted in reducing their volume. A heavy load of untreated sewage and industrial effluents is emptied into the rivers.

- (i) This affects not only the quality of water but also the self-cleansing capacity of the river. For example, if there is an adequate stream flow, the Ganga water is able to dilute and assimilate pollution loads of large cities within 20 kms.
- (ii) The result is that pollution level of many rivers is rising.
- (iii) Concern over rising pollution of our rivers has led to the launching of various action plans to clean the rivers.

NATIONAL RIVER CONSERVATION PLAN (NRCP)

- (i) The activities of Ganga Action Plan (GAP) phase-I were started in 1985.
- (ii) They declared closed on 31st March, 2000.
- (iii) The steering Committee of the National River Conservation Authority reviewed the progress of the GAP and necessary corrections were made on the basis of lamed and experiences gained from GAP phase I.
- (iv) They have been applied to the major polluted rivers of their country under the NRCP.
- (v) The Ganga Action Plan (GAP) Phase-II has been merged with the NRCP. The expanded NRCP now covers 152 towns located along 27 interstate rivers in 16 states. Under this action plan, pollution abatement work are being taken up in 57 towns. a total of 215 schemes of pollution abatement have been sanctioned. so far, 69 schemes have been completed under this action plan. A million litre of sewage is targeted to be intercepted, diverted and treated.

SOME INTERESTING KNOWLEDGE

- (i) The world's largest drainage basin is of the Nile River in Egypt.
- (ii) According to the regulation of the Indus Water Treaty (1960), India can use only 20 per cent of the total water carried by Indus river system. This water is used for irrigation in the Punjab, Haryana and the southern and western parts of Rajasthan.
- (iii) The Sundarban Delth derived its name from the Sundari tree which grows well in marshland. it is the would's largest and fastest growing delta. it is also the home of Royal Bengal Tiger.
- (iv) Brahmaputra is known as the Tsang Po in Tibet and Jamuna in Bangladesh.
- (v) The river Kaveri makes the second biggest waterfall in India. it is known as Sivasmudram. the fall supplies hydroelectric power to Mysore, Bangalore and the Kolar Gold Field.
- (vi) 71 percent of the world's surface is covered with water, but 97 percent of that is salt water. of the 3 percent that is available as freshwater, three quarters of it is trapped as ice.
- (iv) Lakes of large extent are called the seas, like the Caspian, the Dead and the Aral seas.

EXERCISE

OBJECTIVE DPP - 3.1

1. Which one of the following describes the drainage patterns resembling the branches of a tree ?
(A) Radial (B) Dendritic (C) Centrifugal (D) Trellis
2. In which of the following states in \s the Wular lake located?
(A) Rajasthan (B) Uttar Pradesh (C) Punjab (D) Jammu & Kashmir
3. The river Narmada has its sources at:
(A) Satpura (B) Brahmagiri (C) Amarkantak (D) Slopes of the Western ghats
4. Which one of the following lakes is a salt water lake?
(A) Sambhar (B) Dal (C) Wular (D) Govind Sager
5. Which one of the following is the largest river of the Peninsular India?
(A) Narmada (B) Krishna (C) Godavari (D) Mahanadi
6. Which one of the following rivers flows through a rift valley?
(A) Damodar (B) Tungbhadra (C) Krishna (D) Tapti
7. Which one of the following rivers have Nagarjun Sagar Dam, a river valley project?
(A) Kaveri (B) Krishna (C) Damodar (D) Mahi
8. What is the name of the river, which rises at Yamunotri glacier?
(A) The Ganges (B) The Brahmaputra (C) The Yamuna (D) The Kosi
9. Which of the following rivers rises in Nasik?
(A) Mahanadi (B) Godavari (C) Krishna (D) Kaveri

10. The area drained by a single river system is called a –
 (A) Water shed (B) Drainage basin (C) Water divide (D) Drainage Line
11. The plains from Ambala to the Sunderban stretch over nearly is –
 (A) Nearly 1800 km (B) Over 2000 km (C) Over 1500 km (D) Over 3000 km
12. Kosi river is the tributary of –
 (A) Yamuna (B) Ganga (C) Brahmaputra (D) Sutlej
13. The Kaveri river rises in the –
 (A) Brahmagiri range (B) Naga Hills (C) Satpura (D) Aravallis
14. Tungbhadra and Bhima rivers are the tributaries _____ River.
 (A) Krishna (B) Kaveri (C) Mahanadi (D) Narmada
15. What is the Ganga called when it joins the Brahmaputra?
 (A) Meghna (B) Padma (C) Brahmaputra (D) Son

SUBJECTIVE DPP – 3.2

Very short answer type question:

1. What do you mean by the term drainage'?
2. What is 'drainage pattern'? Explain the major drainage patterns in India.
3. Describe the main rivers of Himalayan river system?
4. Name the two main groups into which the river systems of India are classified.
5. Name the tributaries of river Indus.
6. Which is the largest river of the peninsular India?
7. Which is the main watershed in peninsular India?
8. Which two large rivers of India flow into Arabian Sea?
9. Where are most of the fresh water lakes locates?
10. Write three causes responsible for the increase in demand of water.

Short answer type question:

11. Explain the different drainage patterns formed by the steams.
12. Name the three main Himalayan river systems. Give two tributaries of each.
13. Why does Brahmaputra in its Tibetan part have less silt, despite a longer course?
14. Why are the Himalayan river perennial while the peninsular rivers seasonal?
15. Compare the east flowing and west flowing rivers of the peninsular India?
16. State some economic benefits of rivers and lakes.

Long answer type question:

17. Discuss the main features of the Indus river system.
18. Discuss the main features of the Ganga river basin.
19. Differentiate between Himalayan River and the Peninsular River.
20. Which river is often termed as 'Dakshin Ganga'? Describe the main features of this river system.
21. Discuss the causes of river pollution. Suggest a few remedies for it.

ANSWER KEY

(Objective DPP 3.1)

| Que. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| Ans | B | D | C | A | C | D | B | C | B | B | A | B | A | A | A |



CLIMATE



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WEATHER AND CLIMATE

| Weather | Climate |
|---|---|
| (i) Weather is the state atmosphere at any point of time and space, it changes every moment. | (i) Climate refers to the sum total of weather conditions and variations over a large areas for a long period of time. it is the sum total of average weather conditions of 30 years. |
| (ii) Elements of weather are temperature, atmospheric pressure, wind, humidity and precipitation. | (ii) Elements of climate are the same as those of water. |
| (iii) Example: Cloudy, windy, dry, wet weather. | (iii) Example : Monsoon, equatorial desert, cold climate etc. |

(a) India has Diverse Climatic Conditions:

We can take two important elements-temperature and precipitation, and examine how they vary from place to place and season to season.

Temperature -

- (i) In summer, the mercury occasionally touches 50° C in some parts of the Rajasthan desert, whereas it may be around 20° C in Pahalgam in Jammu and Kashmir. On a winter night, temperature at Drass in Jammu and Kashmir may be as low minus 45° C. Tiruvananthapuram, on the other hand, may have a temperature of 20° C.
- (ii) In certain places there is a wide difference between day and night temperatures. In the Thar Desert the day temperature may rise to 50° C, and drop down to near 15° C the same night. On the other hand, there is hardly any difference in day and night temperatures in the Andaman and Nicobar islands or in Kerala.

Precipitation -

There are variations not only in the form and types of precipitation but also in its amount and the seasonal distribution.

- (i) While precipitation is mostly in the form of snowfall in the upper parts of Himalayas, it rains over the rest of the country.
- (ii) The annual precipitation varies from over 400 cm in Meghalaya to less than 10 cm in Ladakh and western Rajasthan.
- (iii) Most parts of the country receive rainfall from June to September. But some parts like the Tamil Nadu coast get most of its rain during October and November. Coastal areas experience less contrast in temperature conditions, seasonal contrast are more in the interior of the country.

CLIMATIC CONTROLS

The climate of a place is determined by the interplay of various factors such as location, altitude, distance from the sea, pressure and winds and upper air circulation.

- (i) Due to the curvature of the earth, the amount of solar energy received varies according to latitude. As a result, air temperature decreases from the equator towards the poles.
- (ii) As one goes from the surface of the earth to higher to higher altitudes, the atmosphere becomes less dense and temperature decreases. The hills are therefore cooler during summers.
- (iii) The pressure and wind system any area depend on the latitude and altitude of the place. Thus it influences the temperature and rainfall pattern.
- (iv) The sea exerts a moderating influences on climate: As the distance form the sea increases, its moderating influence decreases and the people experience extreme weather conditions. This condition is known as continentality.
- (v) Ocean currents along with onshore winds affect the climate of the coastal areas.
- (vi) Relief too plays a major role in determining the climate of a place. High mountains act as barriers for cold or not winds; they may also cause precipitation if they are high enough and lie in the path of rain-bearing winds. The leeward side of mountains remains dry.

FACTORS AFFECTING INDIA'S CLIMATE

(a) Latitude:

Indian is situated roughly between 8° N and 37° N latitudes. India is divided in almost two equal parts by the tropic of cancer. The southern half lies in the tropical zone and the western half in the subtropical zone. Therefore, India's climate has characteristics of tropical as well as subtropical climates.

(b) Altitude:

India has mountains to the north, which have an average height of about 6000 meters. The Himalayas prevent the cold winds from Central Asia from entering the subcontinent. It is because of these mountains that this subcontinent experiences comparatively milder winters as compared to Central Asia.

(c) Pressure and Winds:

India lies in the subtropical high pressure belt, thus, the winds originate from the land and move outwards towards the equatorial low pressure belt. These winds are known as northeast trade winds and are devoid of any moisture. But due to unequal heating of land and water in the summer, a low pressure develops over the interior of land masses. This low pressure attracts the winds from south of the equator. After crossing the equator the southeast trade winds get deflected and are known as southwest monsoons. The climate of India is also affected by jet streams. This is a fast flowing wind blowing in a narrow zone in the upper atmosphere. The jet streams are responsible for sudden outbreak of monsoons in Northern India. a subtropical westerly jet stream bring in the western disturbances in winter. These disturbances cause heavy snowfall on the mountains and light rains on the northwestern part of India.

THE INDIAN MONSOON

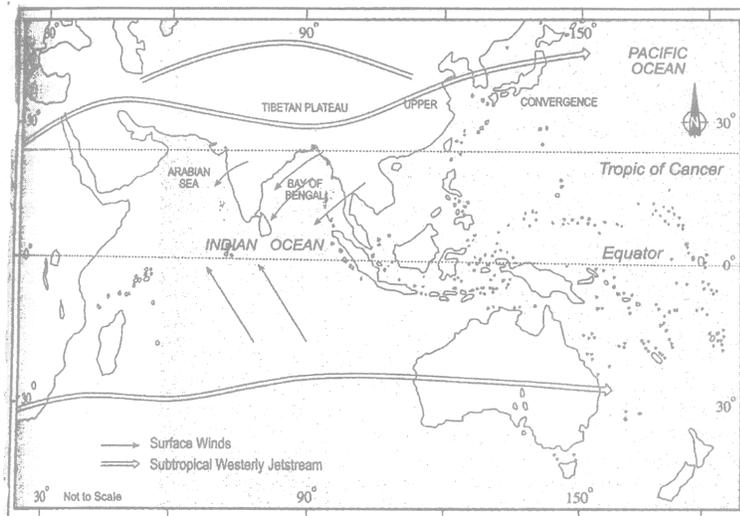
The climate of India is strongly influenced by monsoon winds. the Arabs, who had come to India as traders benefited from the reversal of the wind system as they came by sailing ships at the mercy of winds, they named this seasonal reversal of the wind system 'monsoon'.

The monsoons are experienced in the tropical area roughly between 20° N 20° S. to understand the mechanism of the monsoons, the following facts are important.

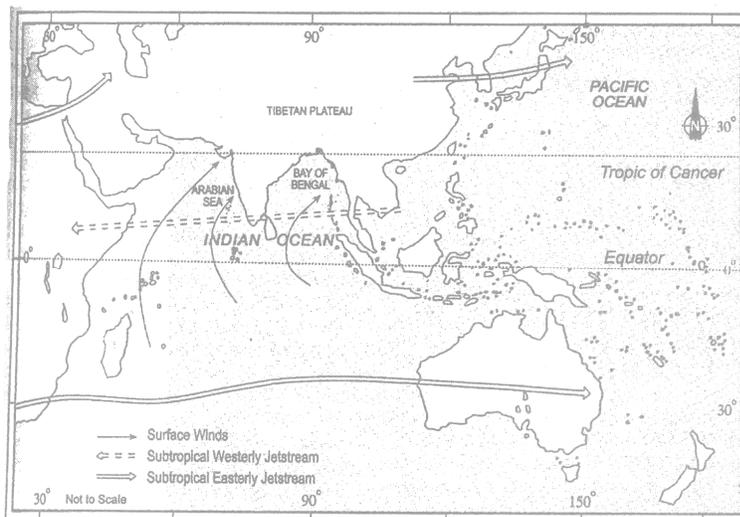
- (i) The differential heating and cooling of land and water creates low pressure on the landmass of India while the seas around experience comparatively high pressure.
- (ii) The shift of the position of inter Tropical Convergence Zone (ITCZ) in summer, over the Ganga plain (this is the equatorial trough normally positioned about 5° N of the equator - also known as the monsoon-trough during the monsoon season).

- (iii) The presence of the high-pressure area, east of Madagascar, approximately at 20° S over the Indian Ocean. The intensity and position of this high-pressure area affects the Indian Monsoon.
- (iv) The Tibetan plateau gets intensely heated during summer, which results in strong vertical air currents and the formation of high pressure over. The plateau at about 9 km above sea-level.
- (v) The movement of the westerly jet stream to the north of the Himalayas and the presence of the tropical easterly jet stream over the Indian peninsula during summer.

Changes in the pressure conditions over the southern oceans also affect the monsoons. Normally when the tropical eastern south Pacific Ocean experiences high pressure, the tropical eastern Indian Ocean experiences low pressure. The difference in pressure over Tahiti (Pacific Ocean, 18° S/149° W) and Darwin in northern Australia (Indian Ocean, 12° 30'S/ 131°E) is computed to predict the intensity of the monsoons. If the pressure differences are negative, it means below average and late monsoons.



Atmospheric Conditions over the Indian Subcontinent in the Month of January



Atmospheric Conditions over the Indian Subcontinent in the Month of January

THE MONSET OF THE MONSODN AND WITHDRAWAL

The Monsoon, unlike the trades, are not steady winds but are pulsating in nature, affected by different atmospheric conditions encountered by it, on its way over the warm tropical seas. The duration of the monsoon is between 100-120 days from early June to mid-September. The monsoon arrives at the southern tip of the Indian peninsula generally by the first week of June. Subsequently, it divides in to two – the Arabian Sea branch and the Bay of Bengal branch. The Arabian Sea branch reaches Mumbai about ten days later on approximately the 10th of June. The Bay of Bengal branch arrives is Assam in the first week of June. The lofty mountain s cause the monsoon winds to deflect towards the west over the Ganga Plains. By mid-June the Arabian Sea branch of the monsoon arrives over Saurashtra-Kuchchh and the central part of the country. The Arabian Sea and the Bay of Bengal branches of the monsoon merge over the northwestern part of the Ganga plains. Delhi generally receives the monsoon showers from the Bay of Bengal branch by the end of June. By the first week of July, western Uttar Pradesh, Punjab, Haryana and eastern Rajasthan experience the monsoon. By mid-July, the monsoon reaches Himachal Pradesh and the rest of the country.

withdrawal or the retreat of the monsoon is a more gradual process. The withdrawal of the monsoon begins in northwestern states of India by early September. By mid-October, it withdraws completely from the northern half of the peninsula. The withdrawal from the southern half of the peninsula is fairly rapid. By early December, the monsoon has withdrawn from the rest of the country.

THE SEASONS

Four main seasons can be identified in India –

| | | |
|--------------------------------|----|----------------------|
| (i) Cold weather season | -- | December to February |
| (ii) Hot weather season | -- | March to May |
| (iii) Advancing monsoon season | -- | June to September |
| (iv) Retreating monsoon season | -- | October and November |

(A) The Cold Weather Season (Winter):

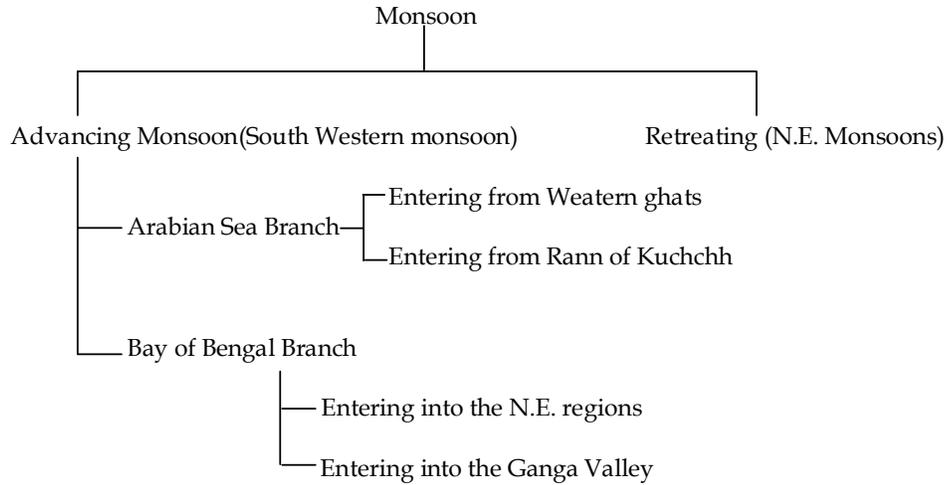
- (i) The cold weather season begins from mid-November in India and stays till February.
- (ii) December and January are the coldest months in the northern part of India. The temperature decreases as one moves from south to the north.
- (iii) Days are warm and the nights are cold. Frost is common in the north and the higher slopes of the Himalayas experience snowfall.
- (iv) The northeast trade winds prevail over the country. They blow from land to sea and hence, for most part of the country, it is a dry season.
- (v) In the northern part of the country, a feeble high-pressure region develops, with light winds moving outwards from this area.
- (vi) The weather is normally marked by clear sky, low temperatures and low humidity and feeble variable winds.
- (vii) Inflow of cyclonic disturbances from the west and the northwest. These low pressure systems originate over the Mediterranean Sea and western Asia and move into India, along with the westerly flow. They cause the much-needed winter rains over the plains and snowfall in the mountains. Locally known as 'mahawat' are of immense importance for the cultivation of 'rabi' crops.
- (viii) The northeast trade winds cause fair amount of rainfall in Chennai or the Coromandel Coast in winter.

(b) Hot weather season (Summer):

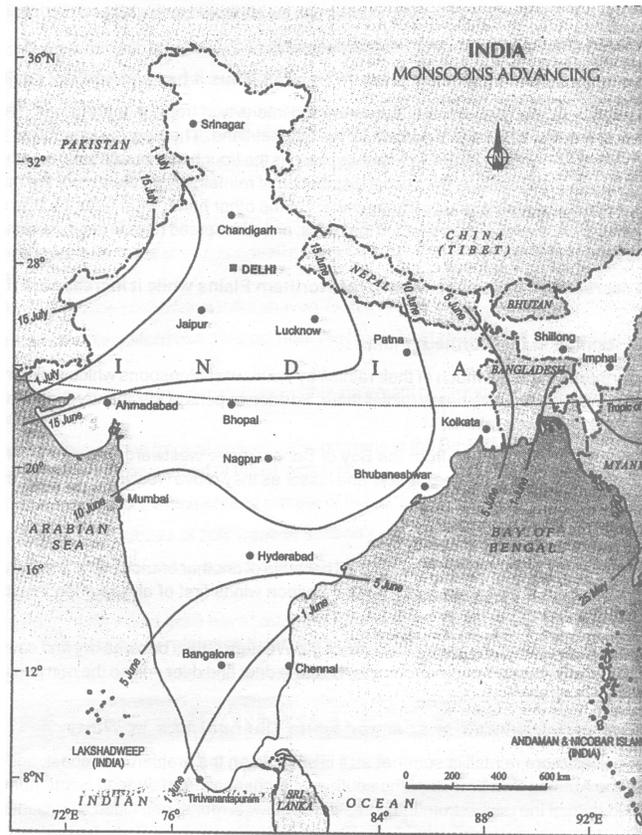
- (i) Due to the apparent movement of the sun, the global heat belt shifts northward. as such, from March to May, it is not weather season in India.
- (ii) Temperature increases from south to north. In peninsular India, temperatures remain lower
- (iii) High temperature between 38° C and 48° C in the plains.
- (iv) Local dust storms accompanied with light rains.

- (v) Hot dry winds, 'loo' is common in May and June.
- (vi) Kerala and Kamataka coast receives pre-monsoon showers. (Mango showers)
- (vii) West Bengal and Assam are affected by northwesterly winds. (Kalbaisakhi).

(c) Advancing Monsoon (The Rainy Season):



The climate of India is described as of monsoon type. Derived from an Arabic word 'mausim', monsoons refer to the seasonal reversal in the wind direction through the year.



Mechanism of the Monsoon:

The word monsoon denotes a season in which the wind regime is completely reversed. The southeast winds, after crossing the equator in the Indian Ocean, take a southwesterly direction. The dry and hot land bearing trades are thus completely replaced by sea bearing winds full of moisture. This phenomenon of complete reversal of winds is confined to tropical lands lying between 20° N and 20° S. this phenomenon account for 75 to 90 percent of the annual rainfall just from June to September

Characteristics of the Monsoon:

- (i) Almost all over the country, the rains occur from June to September.
- (ii) 75% to 90% of the total annual rainfall is concentrated over this period.
- (iii) There is great variation in the advance and withdrawal dates of the monsoons.
- (iv) The monsoons occur in wet spell, interspersed by dry spells.
- (v) The amount of rainfall also varies, causing floods and drought conditions.

“Distribution of rainfall received from the southwest monsoons is governed mainly by the relief of the country.”

- (i) The windward side of the Western Ghats receives a rainfall of over 250 cm. On other hand, the leeward side of the Western Ghats receives less than 50cm.
- (ii) The heavy rainfall in the northeastern states can be attributed to the hill and mountain ranges.
- (iii) Rainfall in the Northern Plains decreases westward.

“Monsoon has a tendency to have breaks in rainfall. Thus it has wet and dry spells”.

Breaks in monsoons are related to the frequency and intensity of tropical depressions. They are formed at the head of the Bay of Bengal and cross over the mainland. The depressions follow the axis of the monsoon trough of the low pressure. For various reasons the trough and its axis keep on moving northward or southward, which determines the spatial distribution of rainfall. When the axis of the monsoon trough lies over the plains, rainfall is good in these parts. on the other hand, whenever the axis shifts closer to the Himalayas, there are longer dry spells in the plains, and widespread rains in the mountainous catchment area of the Himalayan Rivers.

“Rainfall decreases from east to west in the Northern Plains while it increases in the Peninsular India”.

Pattern of Rainfall in the Northern Plains:

- (i) The Northern Plains get much of their rainfall by Southwest Monsoons which strike the eastern part of the country first and give heavy rainfall there. so eastern parts of the country like Assam, Meghalaya, Bengal etc. get much rainfall.
- (ii) Then the monsoons arising from the Bay of Bengal move westwards along the Himalayas. their capacity to cause rain become lesser and lesser as they move westward because they continue to become drier and drier.

Pattern of Rainfall in Peninsular India:

- (i) The Peninsular India also gets much rainfall because of another branch of the South-West Monsoons which rises from the Arabian Sea. These monsoon winds first of all strike the Western Ghats and cause much rain there.
- (ii) These winds while reaching the other side of the Western Ghats become dry and cause less rain. As they go on moving to the eastern side they become drier and drier and so the rain goes decreasing from west to east.

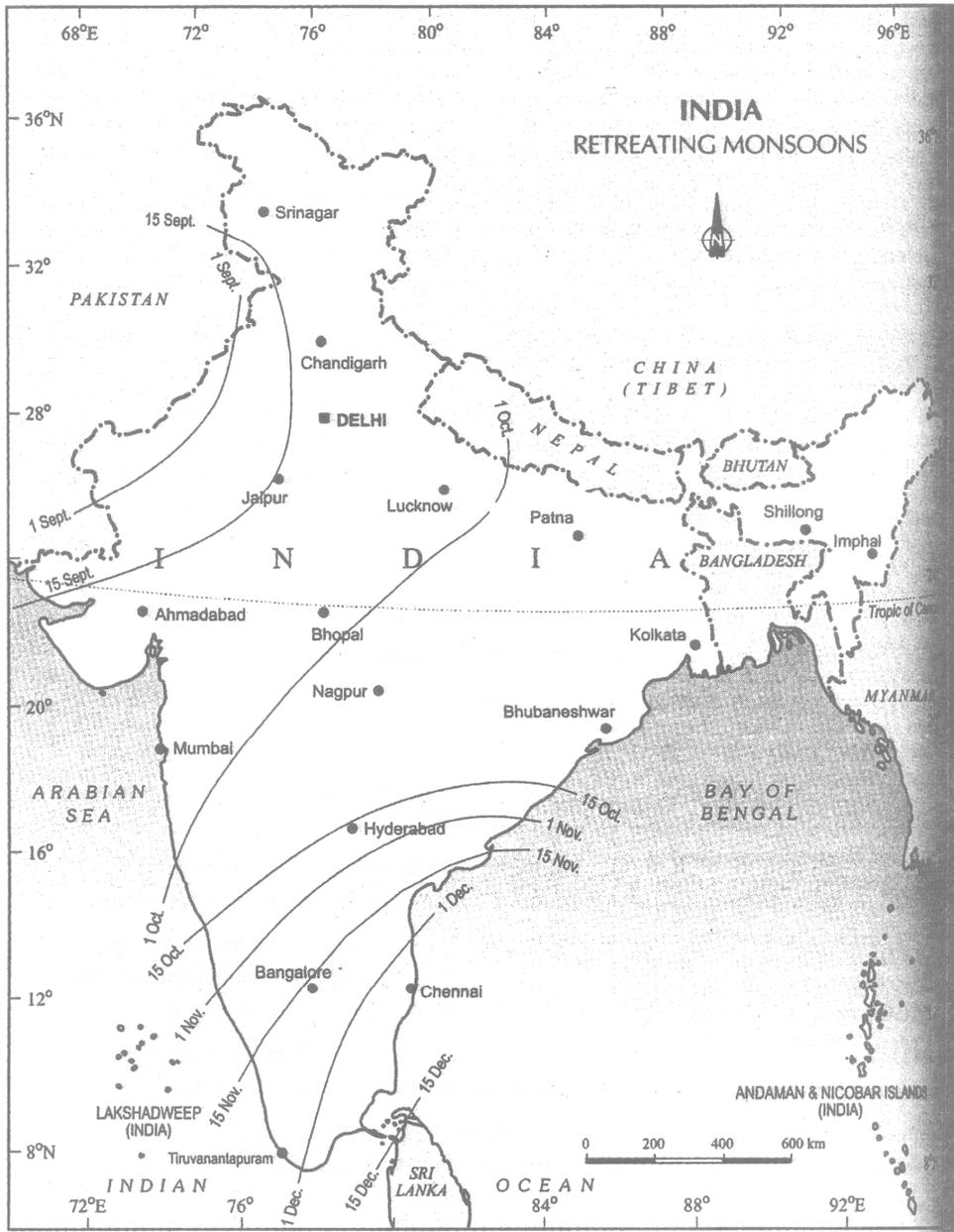
Mumbai receives rainfall in summer while Chennai has in Winter :

Mumbai receives more rainfall in summer as it is situated on the Arabian Sea coast, and receives all its rains from the Arabian Sea branch of the southwest monsoons from June to September only. Chennai receives two-third of the rainfall from the retreating southwest monsoons aided by cyclones on October to December.

Western Rajasthan has desert type of climate:

- (i) Western Rajasthan lies in the rain shadow areas of the Aravalli Mountains. (Leeward side).
- (ii) Arabian sea branch of S.W. monsoons blows parallel to the Aravalli range; hence the Aravallis fail to check it.
- (ii) By the time the Bay Bengal branch reaches here it is almost dry, moreover it lies on the leeward side of the Aravallis.
- (iii) Monsoon winds become warmer and increase their capacity to hold moisture instead of causing rain.

(D) Retreating Monsoons:



During October-November, the monsoon trough of low pressure becomes weaker and is gradually replaced by high pressure. The outreach of the monsoon becomes unsustainable and it starts withdrawing gradually. This is known as the retreat of monsoon.

October Heat:

- (i) The retreat of the monsoons is marked by clear skies and rise in temperature.
- (ii) The land is still moist.
- (iii) Owing to the conditions of high temperature and humidity, the weather becomes oppressive, which is known as October heat in northern India.

Cyclonic Depressions which originate over the Andaman Sea:

In October and November the shift of the low pressure from land to sea is far from smooth. The period is associated with occurrence of cyclonic depressions which originate over the Andaman Sea.

The cyclones affect the eastern coasts of southern peninsular.

The cyclones affect the Sundarban Delta, Mahanadi, Godavari, Krishna and Kaveri deltas too.

These tropical cyclones cause heavy and widespread rain.

One adverse effect of the cyclones is, it is very often destructive. No year is found disaster free, it affects one or the other deltas of the Eastern Coast.

VARIETIES THE MONSOONS IN INDIA

At times the monsoons come in full swing, or it may fail altogether. Thus, causing the twin problems of floods and famines.

The alternation of dry and wet spells keeps on varying in intensity, frequency and the duration.

Implications of vagaries of the monsoons:

- (i) Due to the late arrival the crops dry up.
- (ii) Due to excessive rains floods are caused, leading to destruction.
- (iii) The amount of rain may vary causing drought conditions.
- (iv) Sometimes the monsoons come early, normal or late.
- (iv) The monsoons may retreat early, normal or late.

DISTRIBUTION OF PRECIPITATION IN THE COUNTRY

Areas of Heavy rainfall: Areas which get rainfall of 200 cms and above are Assam, the Ganga Delta, the Western Ghats and the Western Coastal regions and the mountainous regions of Himachal Pradesh.

Areas of Moderate Rainfall: Areas which get annual rainfall between 100 cms to 200 cms are Madhya Pradesh, Orissa, Chhota Nagpur, Western Bengal, Bihar, Eastern U.P., North-Eastern Punjab; Eastern parts of Tamil Nadu and Eastern slopes of Western Ghats receive moderate rainfall.

Areas with Low Rainfall: Areas receiving annual rainfall between 50 cms to 100 cms are the Deccan Plateau, Western U.P., South-Eastern Punjab, Eastern Rajasthan and parts of Kashmir get low rainfall.

Areas with Scanty Rainfall: Areas which get less than 50 cms rainfall annually are western Rajasthan, Kutch, Southeastern parts of Haryana, Northeastern Kashmir get scanty rainfall.

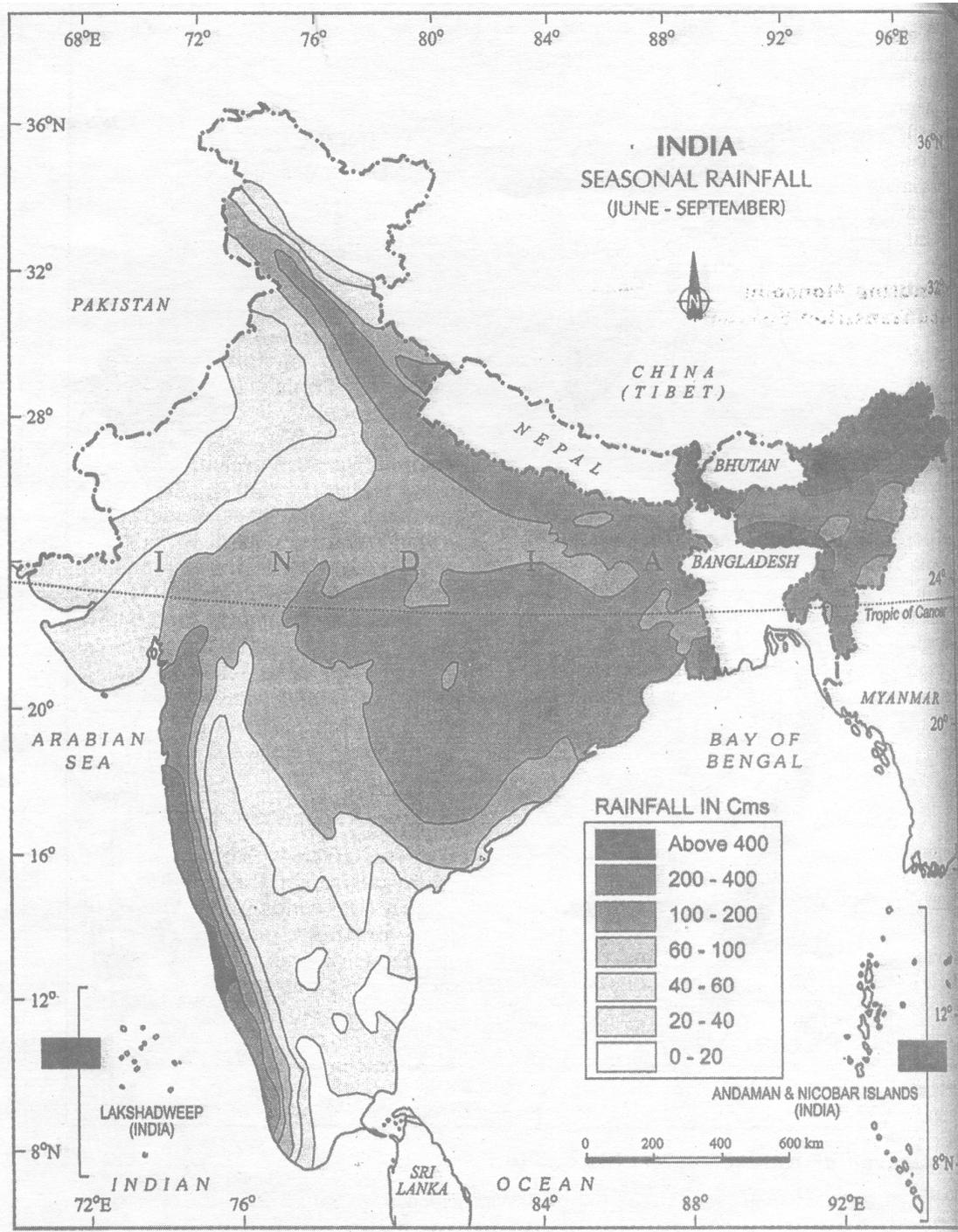
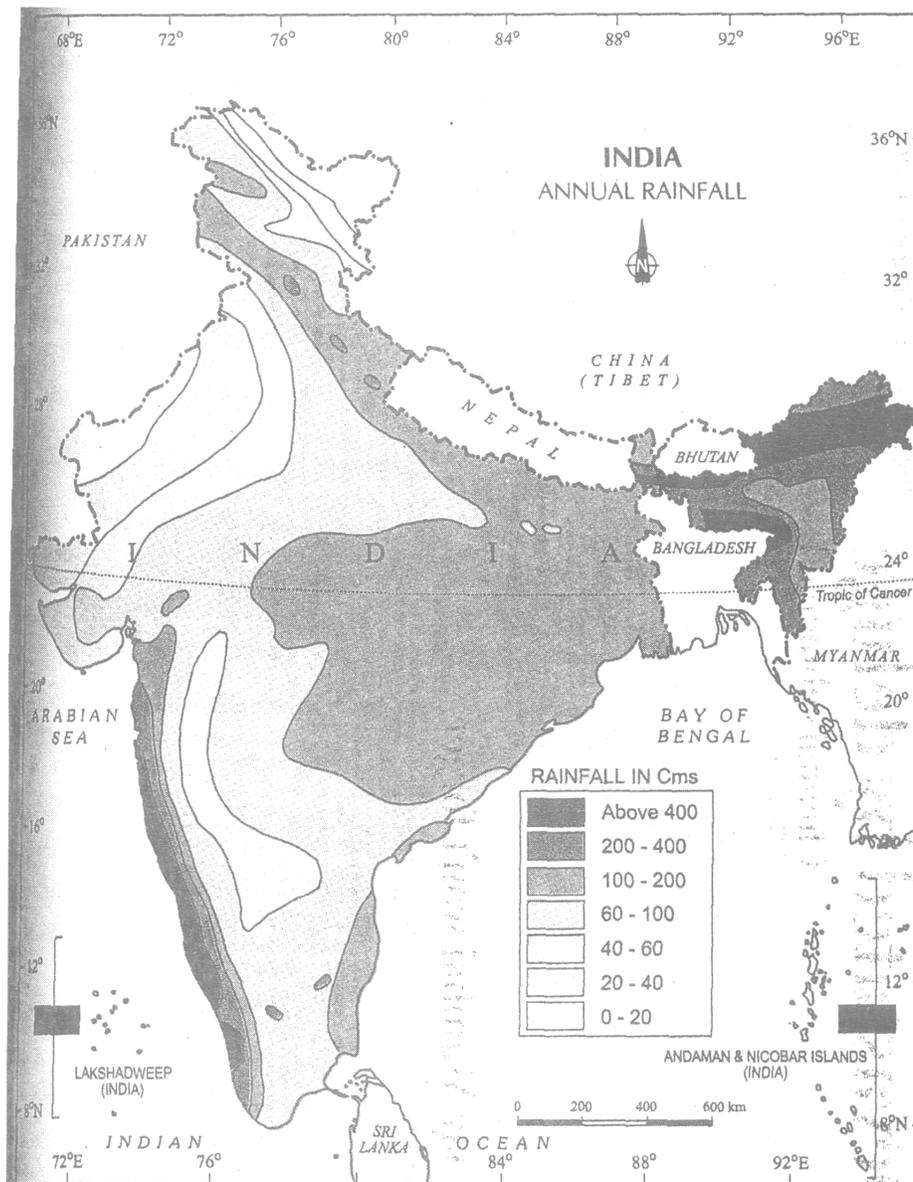


Figure : Seasonal Rainfall (June-September)

Consequences of the Uneven Precipitation in India :

- (i) If there is too much rain in certain areas they cause floods and havoc all around. many grown up crops, villages, railway lines are washed away resulting in great loss of men and money.
- (ii) If there are not sufficient rains even then people are doomed because of drought and hunger. Many people begin to starve and die of hunger. Standing crops dry away thereby bringing doom to the farmers.



Uneven distribution rainfall is due to:

- (A) Relief / Orography
- (B) Wind direction
- (C) Location
- (D) Low pressure axis.

Relief / orography largely govern the distribution of rainfall. For instance, the windward side of the Western Ghats registers a rainfall of 250cms. on the other hand, the leeward side of this ghat is hardly able to receive 50cms.

Again, the heavy rainfall in the northwestern states can be attributed to their hilly ranges and the eastern Himalayas.

Western Rajasthan gets scanty rain because the Arabian Sea branch of the monsoon blows parallel to the Aravallis.

Rainfall in the north decreases from east to west. Kolkata situated near the sea receive about 120 cm, Patna 102cm, Allahabad 91cm, and Delhi 56 cm.

MONSOON AS A UNIFYING BOND

- (i) There is great diversity in the climatic conditions due to location, extent and relief features.
- (ii) But these diversities are subdued by the monsoons, which prevails over the whole country.
- (iii) This water scarcity is felt all over country.
- (iv) Thus the arrival of the monsoon is most welcome; it changes the Indian landscape, gives impetus to agricultural activities, the total life of the Indian people revolves around the monsoons, including festivals.

IMPORTANT POINTS TO REMEMBER

(a) Mango showers:

- (i) Mango showers are pre-monsoon showers.
- (ii) This phenomenon is observed in Kerala and coastal Kamataka.
- (iii) The mango showers help in the early ripening of, mangoes.

(b) Kalbaisakhi:

Kalbaisakhi means the violent black clouds of the month of Baisakh. This is the name given to the north-westerly and northerly winds in Bengal and Assam. These winds cause very heavy rains and distraction.

(c) Chennai receives more rain in winter:

- (i) The northeast winds pick up moisture while crossing Bay of Bengal. these winds are onshore in the winter season.
- (ii) In the summer Chennai lies in the rain-shadow of the Western Ghats, moreover the winds are offshore, therefore receives less rainfall.

(d) Break or burst of the monsoon:

The sudden approach of the moisture laden winds is associated with violent thunder and lightening. This is known as “break” or “burst” of the monsoons. The first ‘break’ of monsoons on the south-west-coast of India is around 1st June.

(e) Southern Oscillation:

The pressure systems of Pacific and Indian Oceans are interrelated. When the pressure is high in the pacific, there is low pressure in the Indian Ocean. The winds move from high pressure to low pressure and vice-versa. This causes shifting of winds across the equator in different seasons. this is known as the southern oscillation.

(f) El Nino Southern Oscillations :

A feature connected with Southern Oscillation is the El Nino, a warm ocean current that flows past the Peruvian Coast, in place of the cold Peruvian current, every 2 to 5 years. the changes in pressure conditions are connected to the El Nino, the phenomenon is referred to as ENSO (El Nino Southern Oscillations).

(g) Mawsynram receives the highest rainfall in the world:

- (i) Mawsynram is situated at the head of a funnel shaped valley in the Khasi hills.
- (ii) Its unique topographical location together with wind direction is responsible for causing the heaviest rainfall in the world.

(h) The rainfall decreases from South to North :

- (i) The S.W. Monsoons originates from the Indian Ocean and divides into branches due to the shape of the Indian peninsular.

- (ii) Trivandrum gets above 200 cm.
- (iii) Whereas Delhi situated in the interior gets only about 50 cm.
- (iv) The Arabian Sea branch strikes the Western Ghats and causes heavy rainfall.
- (v) Whereas another branch of the Arabian Sea monsoon blows parallel to the Aravallis. thus jodhpur gets less than 25cms of rain.

(i) The Western Ghats receive more rain from the southwest monsoons than the Eastern Ghats because:

- (i) The Arabian Sea branch of the monsoon is on shore.
- (ii) These winds are forced to rise and cause heavy rains.
- (iii) By the time these winds reach the east coast, most of the moisture is lost.
- (iv) The winds are offshore, so they given less rain.
- (v) Eastern Ghats lies on the leeward/rain-shadow area, hence it gets less rain.

(j) Indian would have been an arid land or desert if there had been no phenomena of monsoons :

- (i) Indian receives 75 to 90% of the rainfall from the monsoons.
- (ii) These monsoons winds occur due to the uneven heating of land and sea.
- (iii) The mighty Himalayas check the two branches of southwest monsoons, the Arabian Sea branch and the Bay of Bengal branch. These, cover the whole of India thus preventing it from becoming a desert.

DIFFERENCE BETWEEN

(a) Equable climate & extreme climate:

| Equable Climate | Extreme Climate |
|--|---|
| (i) The climate is moderate, that is neither too hot in summer nor too cold in winter. | (i) The climate is continental, that is very hot in summer and very cold in winter. |
| (ii) The annual and daily range of temperature is low. | (ii) The annual and daily range of temperature is high. |
| (iii) Those places situated near the sea coast enjoy equable climate e.g., Mumbai. | (iii) Places situated in the interior have extreme climate e.g., Delhi. |

(b) Rainfall and precipitation:

| Rainfall | Precipitation |
|--|---|
| (i) It is only form of precipitation. | (i) It is broader term, it includes rainfall, sleet, snow and hail. |
| (ii) The water vapour condenses and changes into water and falls down as drops of rain. | (ii) The water vapour changes into different forms such as rainfall, snow, sleet or hail. |
| (iii) It involves a simple process i.e. ascending of air, colling and coming down as rain. | (iii) It is a more comples process. |
| (iv) Delhi receives rainfall. | (iv) Leh receives snowfall. |

(c) South-West Monsoons and Retreating Monsoons:

| South-West Monsoons | Retreating Monsoons |
|---|---|
| (i) These winds blow from June to September. | (i) These winds blow from October to November. |
| (ii) These are moisture laden winds. | (ii) These winds originate from the land, hence are dry. |
| (iii) About 75 to 90% of the annual rainfall occurs during these months all over the country. | (iii) These cause rainfall over the south-eastern coast when the winds pick up moisture from the Bay of Bengal. |
| (iv) It is pleasant season of rains and greenery all over the country. | (iv) Due to clear skies, high temperature and high humidity, the weather is oppressive known as 'October heat' |

(d) Loo and Cold wave:

| Loo | Cold wave |
|--|---|
| (i) It occurs in the hot weather season. | (i) It occurs in the cold weather season. |
| (ii) The hot and dry winds blow in the after-noon and may continue till mid Night | (ii) The western disturbances cause heavy snow fall in the western Himalayas this causes lowering of temperature on the plains. |
| (iii) It raises the day temperature. the temperature ranges between 40° C to 50° C | (iii) the temperature falls by 55° C from the normal |

(e) South-West Monsoons and North-East Monsoons:

| South-West Monsoons | North-East Monsoons |
|---|--|
| (i) These are seasonal winds. | (i) These are trade winds. |
| (ii) Blow during summer, June to September. | (ii) Blow in winter, December to February. |
| (iii) Blow from sea to land. | (iii) Blow from land to sea. |
| (iv) Bulk to the annual rainfall received in India is brought by these winds. | (iv) These are dry winds, while crossing the Bay of Bengal they pick up moisture and give rainfall to the Coromandel Coast/Tamil Nadu coast. |
| (v) High temperature and low pressure. | (v) Low temperature and high pressure. |
| (vi) High humidity. | (vi) Low humidity. |

EXERCISE

OBJECTIVE DPP - 4.1

- Weather is the -
(A) condition of atmosphere at a place and also at a particular time
(B) the result of air masses
(C) the sum total of the atmospheric pressures
(D) none of the above
- Summer season occurs in account of -
(A) the low angle of the sun
(B) the high angle of the sun
(C) the slanting rays of the sun
(D) none of these

3. Monsoons are -
(A) seasonal winds (B) permanent winds (C) temporary winds (D) local winds
4. A cyclone has a low pressure area in the centre.
(A) Yes (B) No (C) Not always (D) Not known
5. The tropical cyclones of the Bay of Bengal are usually called -
(A) typhoons (B) hurricanes (C) depressions (D) tornadoes
6. Indian receives most rain from -
(A) the northeast monsoon (B) the retreating monsoon
(C) tropical cyclones (D) the southwest monsoon
7. The phenomenon of the monsoon is only confined to the tropical land lying between -
(A) 20° N and 20° S (B) 33° N and 33° S (C) 23¹/₂° N (D) 40° N and 40° S
8. During the cold weather season the temperature decreases from -
(A) north to south (B) south to north (C) east to west (D) west to east
9. The western disturbances originate over the -
(A) Mediterranean Sea (B) Arabian Sea (C) Red Sea (D) Bay of Bengal
10. What is the cause of snowfall in the Himalayas during the winter season ?
(A) tropical cyclones (B) southwest monsoon (C) western disturbances (D) northeast monsoons
11. The strong, hot and dry winds called Loo blows over the -
(A) Northern and northwestern plains (B) Deccan Plateau
(C) Coastal Plains (D) Himalayas
12. 'Kalbaiskhi' the northwesterly winds cause thunderstorms and sharp showers in
(A) West Bengal (B) Punjab (C) Rajasthan (D) Madhya Pradesh
13. Which mountain range acts as a barrier in the path of the Arabian Sea branch ?
(A) Aravallis (B) Western Ghats (C) Eastern Ghats (D) Rajmahal Hills
14. Which hills turn direction of the Bay Bengal branch of the southwest monsoon ?
(A) Aravallis (B) Nilgiris (C) Arakan (D) Rajmahal Hills
15. How much rainfall occurs during the southwestern monsoon season ?
(A) 85% to 100% (B) 75% to 90% (C) 50% to 60% (D) 60% to 70%

SUBJECTIVE DPP - 4 .2

Very short answer type question:

1. Mention the major factors that control the climate of any place.
2. Where does the low pressure area develop in May?
3. Name the four months in which Indian receives the bulk of rainfall.
4. Why does Tamil Nadu receive winter rainfall?
5. Name two states where mango showers are common.
6. Name some region for which the tropical cyclones are very destructive.
7. What is the name given to the climate of India?
8. From where do western disturbances come into India?
9. Name the hill which deflects the Bay of Bengal branch to India.
10. Write any two parts of India which receive minimum rainfall.

Short answer type question:

11. Name the elements of weather and climate.
12. What are 'jet Stream'?

13. What meant by the term 'loo'?

14. What are the 'retreating monsoons'?
15. Define the following terms:
(i) Mango showers (ii) Jet Streams (iii) Loo.
16. How does the Himalayan mountain range act as an effective climatic divide?
17. What is meant by 'Southern Oscillation'? How it affects Indian climate?
18. What is meant by 'October Heat'? Why is it short lived?
19. How is southwest monsoon different from the northwest monsoon?
20. Describe the winter season in India.

Long answer type question:

21. Describe the regional variations in the climatic condition of India with the help of suitable examples.
22. Describe the factors controlling the Indian weather conditions.
23. Describe how the location and relief are important factors in determining the climate of India.
24. Give an account of the hot weather season in India.
25. Discuss the distribution of precipitation in the country and the consequences of its uneven distribution.
26. Explain how does monsoon act as an unifying bond in the country.

Previously Asked Problems

27. 'India has diverse climatic conditions'. Support this statement with four examples. [Delhi 2001 C]
28. Why is rainfall distribution uneven in India? Give four reasons. [Delhi 2001 C]
29. How is the distribution of rainfall received from southwest monsoon largely governed by the orography in India? Explain with four examples from different parts of the country. [Delhi 2001 C]
30. Examine the role of the Himalayan Mountain Range on the north of India as a climatic divide. [Delhi 2001 C]
31. How do Western jet stream and Eastern jet-stream affect the climate of India? [Delhi 2001 C]
32. India would have been an arid land or desert if there had been no phenomena of monsoons". Explain it by giving four points. [A 1 1997]
33. Why is the distribution of rainfall in India uneven? Give four reasons. [Delhi 1996]
34. How is the South-West Monsoon different from the North-East Monsoon? Write any four differences. [Delhi 1996]
35. "Indian has diverse climate conditions". Support this statement by giving two examples each of temperature and precipitation. [A 1 1996]
36. Name the coast where the tropical cyclones that originate in the Bay of Bengal and over the Andaman Sea give rain. Give one adverse effect of these cyclones. [A 1 1995 C]
37. Describe three main features of cold weather season. [A 1 1994 C]
38. Describe three main features of cold weather season. [Delhi 1994 C]
39. Mumbai receives more rainfall summer season while Chennai in winter. Give any two reasons for it. [Delhi 1994 C]
40. What type of climate would India have had, if the Arabian sea, Bay of Bengal and the Himalaya had not been there? Explain it with reference to temperature and precipitation. [Delhi 1997 C]
41. Describe the factors which influence the climate of India. [Foreign 1995]

A N S W E R K E Y

(Objective DPP # 4.1)

| Que. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| Ans | A | B | A | B | C | D | A | B | A | C | A | A | B | C | B |



NATURAL VEGETATION & WILDLIFE



SL-05 (G)

India is one of the twelve mega bio-diversity countries of the world. With about 47,000 plant species India occupies tenth place in the world and fourth in Asia in plant diversity. There are about 15,000 flowering plants in India which account for 6 per cent in the world's total number of flowering plants. The country has many non-flowering plants such as ferns, algae and fungi. India also has 89,000 species of animals as well as rich variety of fish in its fresh and marine waters.

Natural vegetation: Refers to a plant community which has grown naturally without human aid and has been left undisturbed by human for a long time. This is termed a virgin vegetation. Thus, cultivated crops and fruits, orchards are a part of vegetation but not natural vegetation. India's natural vegetation has undergone many changes due to several factors such as the growing demand for cultivated land, development of industries and mining, Urbanisation and over-grazing of pastures. The vegetation cover of India in large parts is on more natural in the real sense. Except in some inaccessible region like the Himalayas, the hilly region of central India and the marshy areas, the vegetation of most of the areas has been modified at some places, or replaced or degraded by human occupancy.

Flora: The term flora is used to denote plants of a particular region or period.

Fauna: The species of animals are referred to as fauna.

FACTORS WHICH AFFECT DIVERSITY OF FLORA AND FAUNA

Land: Land affects the natural vegetation directly and indirectly. The nature of land influences the type of vegetation. The fertile level is generally devoted to agriculture. The undulating and rough terrains are areas where grassland and woodlands develop and give shelter to a variety of wild life.

Soil: Different types of soil provide basis for different types of vegetation. The sandy soils of the desert support cactus and thorny bushes while wet, marshy, deltaic soil support mangroves and deltaic vegetation. The hill slopes with some depth of soil have conical trees.

Temperature: the character and extent of vegetation are mainly determined by temperature along with humidity in the air, precipitation and soil. On the slopes of the Himalayas and the hills of the Peninsula above the height of 915 meters, low temperature affects the types of vegetation and its growth. Temperature changes it from tropical, temperate and alpine.

| Table : Temperature Characteristics of Vegetation Zones | | | |
|---|---|--|----------------------|
| Vegetation zone | Mean Average Temperature (in °C) (July) | Mean Average Temperature (in °C) (Jan) | Remarks |
| Tropical | Above 24°C | Above 18° | No frost |
| Sub-tropical | 17 °C to 24 °C | 10 °C to 18 °C | Frost is rare |
| Temperate | 7 °C to 17 °C | -1 °C to (-10) °C | Frost, sometime snow |
| Alpine | Below 7° C | Below 7° C | Snow |

Sun Light: The variation in Sunlight received at different places is due to difference in latitude, altitude, season and duration of the day. Adequate sunlight in summer causes trees to grow faster.

Precipitation: Precipitation determines the density of vegetation. Areas of heavy rainfall have more dense vegetation as compared to other areas of less rainfall.

Importance of forests for Human life

Forests are renewable resources and play a major role in enhancing the quality of environment. they modify local climate, control soil erosion, regulate stream flow, support a variety of industries, provide livelihood for many communities and offer panoramic or scenic view for recreation. it controls wind force and temperature and causes rainfall. It provides humus to the soil and shelter to the wildlife.

COSYSTEM AND BIOME

Ecosystem: It is an integrated unit consisting of the community of living organisms and the physical environment in a particular area. Plants occur in distinct groups of communities in areas having similar climatic conditions. The nature of the plants in an area, to a large extent, determines the animal life in that area.

Biome: A very large ecosystems on land having distinct types of vegetation and animals life is called a biome. Biomes include both flora and fauna but it is mainly the plant formations which are used as the basis of their grouping. On the basis of the order of availability of soil, water and heat the world is divided into five principle biomes:

- (i) Forest (ii) Savanna (iii) Grassland (iv) Desert (v) Tundra

TYPES OF VEGETATION

(a) Tropical Evergreen:

- (i) They are at their best in areas having more than 200 cm of rainfall with a short dry season.
- (ii) In these forest trees grow up to 60 m & above.
- (iii) These forest yield hard wood trees.
- (iv) These forest are found in rainy parts of Western Ghats, Assam, West Bengal, Lakshadweep and Andaman & Nicobar Islands.
- (v) Ebony, Mahogany, Rosewood, Rubber and Cinchona are some of the important trees.
- (vi) In these forest large number of plant species are found at one place. it creates difficulty in their commercial exploitation.
- (vii) Elephants, Monkey, Lemur and Deer are some common animals found in these forest.

(b) Tropical Deciduous forests:

These are the most widespread forests of India. they are also called the monsoon forests and spread over the region receiving rainfall between 200 cm and 70 cm. trees of this forest-type shed their leaves for a bout six to eight weeks in dry summer. on the basis of the availability of water, these forests are further divided into :-

Moist deciduous:

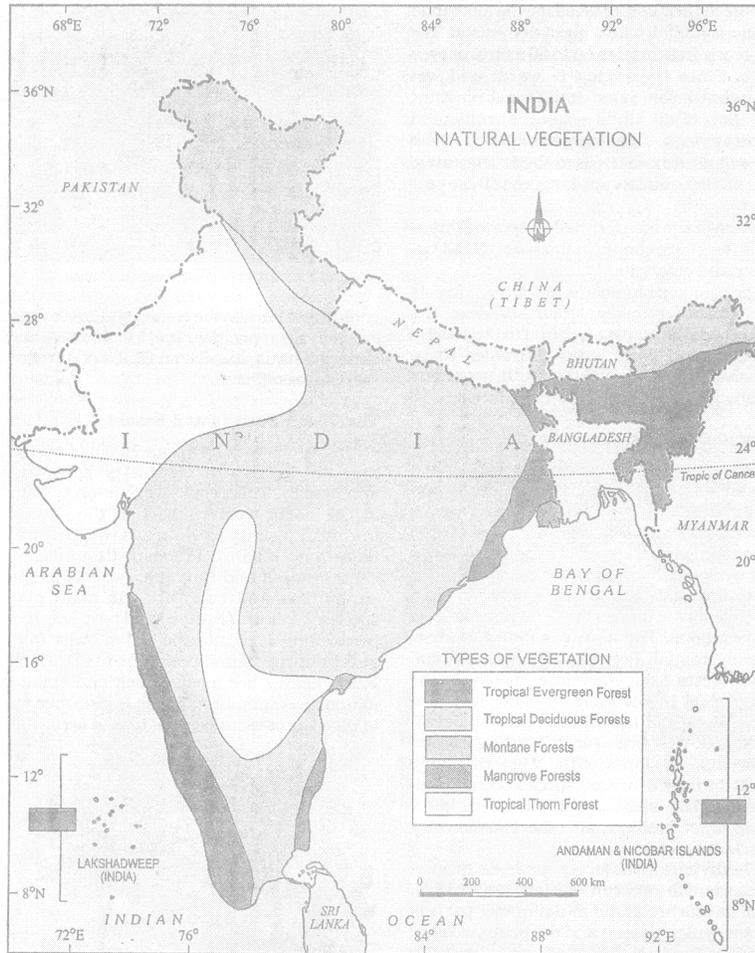
- (i) These forests are found in the areas of 100 cm to 200 cm of rainfall.
- (ii) Due to a longer dry season, the trees shed their leaves during the dry season.
- (iii) Shisham, Bamboos, Sandalwood, Khair, Kusum, Arjun, Mulberry and Sal are the common trees found in these forests.
- (iv) These forests cover a vast area of the country. Northeastern states, along the foot hills of the Himalayas, Jharkhand, West Orissa and Chhattisgarh and on the Eastern slopes of the Western Ghats.

Dry deciduous:

- (i) These are found in areas having rainfall between 70 cm to 100 cm.
- (ii) These are found in the rainier part of the peninsular plateau and the plains of Bihar and U.P.
- (iii) These are open stretches in which Teak, Sal, Peepal, Neem grow.
- (iv) Most of these forests have been cleared for cultivation.
- (v) In these forests, the common animals found are lion, tiger, pig, deer and elephant. a huge variety of birds, lizards, snakes, and tortoises are also found here.

(c) The Thorn forests and Shrubs:

Tropical thorn forests occur in the areas which receive rainfall less than 70 cm. these consist of a variety of grasses and shrubs. In includes semi-arid areas of south west Punjab, Haryana, Rajasthan, Gujarat, Madhya Pradesh and Uttar Pradesh. In these forests, plants remain leafless for most part of the year and give an expression of shrub vegetation. Important species found are babul, kher and wild Date palm, Kikar, Neem, Khejri, Palas, etc.



Natural Vegetation

(d) Montain Forests:

In mountainous areas, the decrease in temperature with increasing altitude leads to the corresponding change in natural vegetation.

- (i) The wet temperate type of forests are between a height of 1000 and 2000 meters. evergreen broad-leaf tress such as oaks and chestnuts predominate.
- (ii) Between 1500 and 3000 meters, temperate forests containing coniferous trees like pine, deodar, silver fir, spruce and cedar, are found. These forests cover mostly the southern slopes of the Himalayas, places having high altitude in southern and north-east India. at higher elevations, temperate grasslands are common.

- (iii) At high altitudes, generally more than 3600 meters above sea-level, temperate forests and grasslands give way to the Alpine vegetation. Silver fir, junipers, pines and birches are the common trees of these forests.
- (iv) Above Alpine vegetation Alpine grasslands are found. These are used extensively for grazing by nomadic tribes like the Gujjars and the Bakarwals. At higher altitudes, mosses and lichens form part of tundra vegetation.
- (v) the common animals found in these frosts are Kashmir stag, spotted deer, wild sheep, jack rabbit, Tibetan antelope, yak, snow leopard, squirrels, shaggy horn wild ibex, deer and rare red panda, sheep and goats with thick hair.

(e) Mangrove forests:

These are found in the areas which are under the influence of tides having accumulated mud and silt. Dense mangrove are the common varieties with roots of plants submerged under water. These forests are found in the deltas of Ganga, Mahanadi, Godavari and Kaveri. The most important tree is the Sundari tree after which the Sunderbans are named. The tree provides hard, durable and strong wood which is used for building boats and boxes. Royal Bengal Tiger is the famous animal in these forests. Turtles, crocodiles, gharials and snakes are also found in these forests.

FOREST CONSERVATION

Forests have an intricate interrelationship with life and environment. These provide numerous direct and indirect advantages to our economy and society. Hence, conservation of forests is of vital importance to the survival and prosperity of humankind. Accordingly, the Government of India proposed to have a nationwide forest conservation policy, and adopted a forest policy in 1952, which was further modified in 1988. According to the new forest policy, the Government would emphasize sustainable forest management in order to conserve and expand forest reserve on the one hand, and to meet the needs of local people on the other.

The forest policy aimed at:

- (i) Bringing 33 per cent of the geographical areas under forest cover.
- (ii) Maintaining environmental stability and to restore forests where ecological balance was disturbed.
- (iii) Conserving the natural heritage of the country, its biological diversity and genetic pool.
- (iv) Checks soil erosion, extension of the desert lands and reduction of floods and droughts.
- (v) Increasing the forest cover through social forestry and afforestation on degraded land.
- (vi) Increasing the productivity of forests to make timber, fuel, fodder and food available to rural population dependant on forests, and encourage the substitution of wood.
- (vii) Creating of a massive people's movement involving women to encourage planting of trees, stop falling of trees and thus, reduce pressure on the existing forest.

WILDLIFE

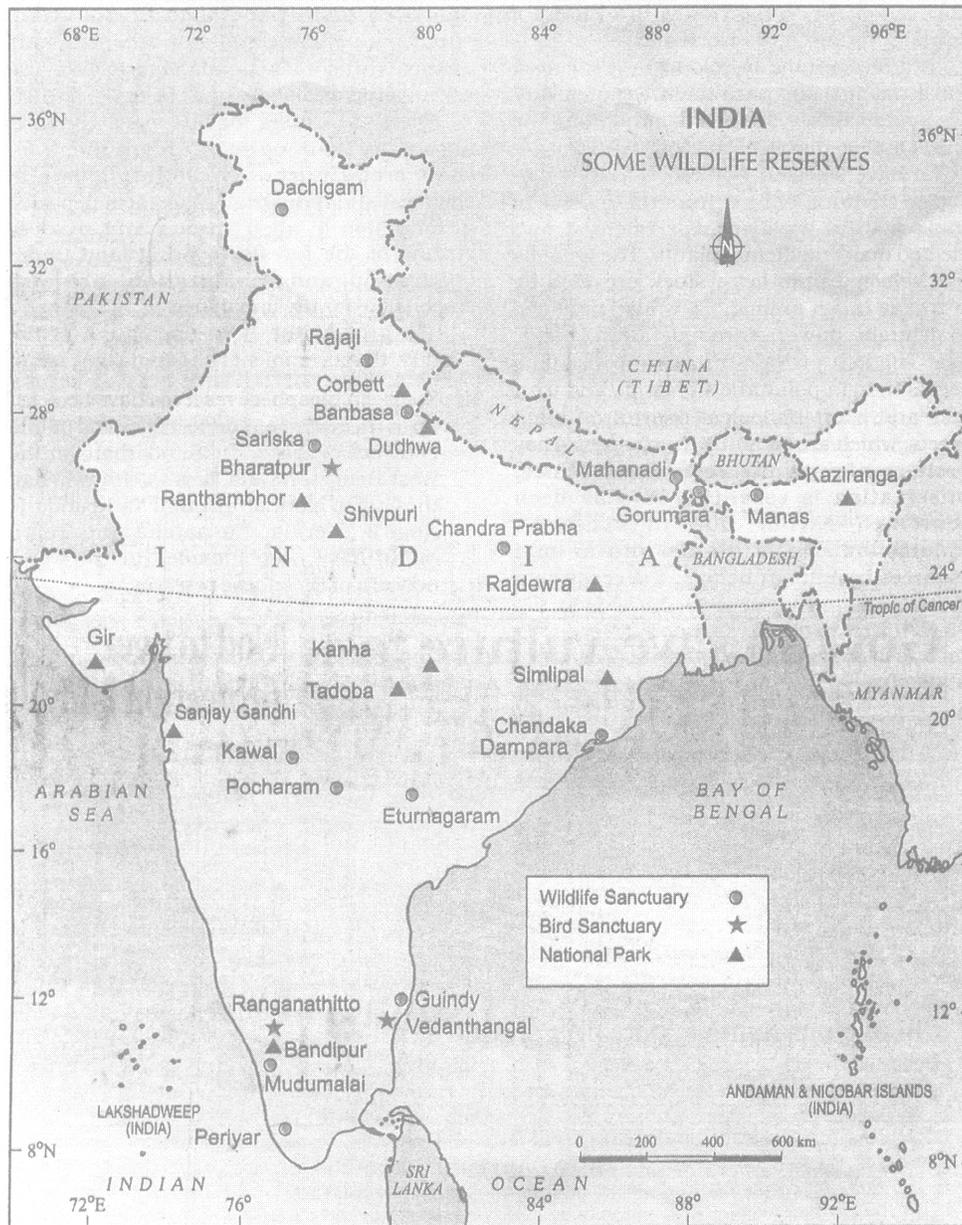
Wildlife of India is a great natural heritage. It is estimated that about 4-5 per cent of all known plant and animal species on the earth are found in India. The main reason for this remarkable diversity of life forms is the great diversity of the ecosystem which this country has preserved and supported through the ages. India has more than 1200 species of birds, 2500 species of fish and between 5 to 8 percent of the world's amphibians, reptiles and mammals. India is the only country in the world that has both tigers and lions. The Himalayas have a large range of animals that survive the bitter cold. Every species of animal has a role to play in the ecosystem; hence conservation is essential. Hunting and pollution is causing threat to animal species. To protect the flora and fauna of the country, the government has taken many steps. Fourteen biosphere reserves have been set up in the country to protect flora and fauna. 89 national Parks, 49 Wildlife Sanctuaries and Zoological Gardens are set up to take care of natural heritage.

Over the years, their habitat has been disturbed by human activities and as a result, their numbers have dwindled significantly. There are certain species that are at the brink of extinction.

Some of the important reasons for the declining wildlife are as follows:

- (i) Industrial and technological advancement brought about a rapid increase in the exploitation of forest resources.

- (ii) More and more lands were cleared for agriculture, human settlement, roads, mining, reservoirs, etc.
- (iii) Pressure on forests mounted due to lopping for fodder and fuel wood and removal of small timber by the local people.
- (vi) Grazing by domestic cattle caused an adverse effect on wildlife and its habitat.
- (v) Hunting was taken up as a sport by the elite and hundreds of wild animals were killed in a single hunt. now commercial poaching is rampant.
- (vi) Incidence of forest fire.



Wildlife Reserves

(a) wildlife conservation in India.

- (i) fourteen biosphere reserves have been set up in the country to protect flora and fauna. four out of these, the Sunderbans in the West Bengal, Nanda Devi in Uttaranchal, the Gulf of Mannar in Tamil Nadu and the Nilgiris (Kerala, Karnataka and Tamil Nadu) have been included in the world network of Biosphere reserves.
- (ii) financial and technical assistance is provided to many Botanical Gardens by the governmental projects have been introduced.
- (iv) 89 National Parks, 492 Wildlife sanctuaries and Zoological gardens are set up to take care of Natural heritage.

BIOSPHERE RESERVES

A Biosphere Reserve is a unique and representative ecosystem of terrestrial and coastal areas which are internationally recognised within the framework of UNESCO’s Man and Biosphere (MAB) Programme. The Biosphere Reserve aims at achieving the three objectives as depicted in Figure.

There are 14 Biosphere Reserves in India (Table, Figure). four Biosphere Reserves, namely (i) Nilgiri ; (ii) Nanda Devi; (iii) Sunderbans; and (iv) Gulf of Mannar have been recognised by the UNESCO on World Network of Biosphere Reserves.

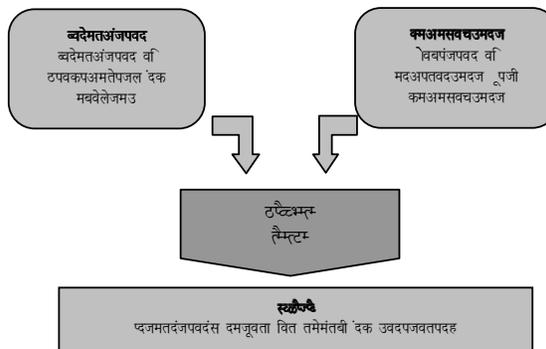


Figure : Objectives of a Biosphere Reserve

Table: List of Biosphere Reserves

| S.No. | Name of the Biosphere Reserve | Total Geographical Area (km ²) | Location (states) |
|-------|-------------------------------|--|---|
| 1 | Nilgiri | 5,520 | Part of wynad, Nagarhole, Bandipur and Mudumalai, Nilambur, Silent Valley and Siruvani Hills (Tamil Nadu, Kerala and Karnataka) |
| 2 | Nanda Devi | 2,236.74 | Part of Chamoil, Pithoragart and Almora districts (Uttar Prades) and part of Garo Hills (Meghalaya) |
| 3 | Nokre | 820 | Part of Garo Hills (Meghalaya) |
| 4 | Manas | 2,837 | Part of Kokrajhar, Bongaigaon, Barrette, Nalbari, Kamru And Darrang distirtcts (Assam) |
| 5 | Sunderbans | 9,630 | Part of delta of Ganges and Brahmaputra river ystem (West Bengal) |
| 6 | Gulf of Mannar | 10,500 | Indian part of Gulf of Mannar between India and sri Lanka(Tamil Nadu) |
| 7 | Great Nicobar | 885 | Southernmost islands of the Andaman and Nicobar (A & N islands) |
| 8 | Similiparl | 4,374 | Part of Mayurbhanj district (Orissa) |
| 9 | Dibru-Saikhowa | 765 | Part of Dibrugarh and Tinsukia districts (Assam) |
| 10 | Dihang Dibang | 5,111.50 | Part of siang and Debang valley in Arunachal Pradesh |
| 11 | Kanchenjunga | 2,619.92 | Part of North and West Sikkim |
| 12 | Pachmari | 4,926.28 | Part of Betul, Hoshangabad and Chindwara districts of Madhya Pradesh |
| 13 | Agasthyamalai | 1,701 | Agasthyamalai Hills in Kerala |
| 14 | Achanakmar-Amarkar | 3,835.51 | Parts of Anupur and Dindori district of MP and parts of Bilaspur district of Chhattisgarh |

EXERCISE

OBJECTIVE DPP - 5.1

- To which one of the following types of vegetation does rubber belong to:
(A) Tundra (B) Tidal (C) Himalayan (D) Tropical Evergreen
- Cinchona trees are found in the areas of rainfall more than:
(A) 100 cm (B) 50 cm (C) 70 cm (D) Less than 50 cm
- In which of the following state is the Simlipal Bio Reserve located:
(A) Punjab (B) Delhi (C) Orissa (D) West Bengal
- Which of the following bio-reserves of Indian is not included in the world network of bio-reserves?
(A) Manas (B) Nilgiri (C) Gulf of Mannar (D) Nanda Devi
- The distribution of plants and animals on the earth is determined primarily by :
(A) Climate (B) Drainage (C) Soil (D) All the above
- Plant species are called:
(A) Flora (B) Biome (C) Fauna (D) None of the above
- Name the habitat of Indian tigers:
(A) Gir (B) Sunderban (C) Kamataka (D) Kerala
- What is the habitat of the horned Rhinoceros?
(A) Gujarat (B) Assam (C) West Bengal (D) Both B and C
- Which of the following factors does not affect the distribution of plants and animals ?
(A) Soil (B) Relief (C) Ecosystem (D) Drainage
- Which of the following tree is used for treatment of blood pressure?
(A) Teak (B) Chestnut (C) Sarpagandha (D) Rosewood
- Which of these is not a bio-reserve?
(A) Nokrek (B) Nanda devi (C) Nilgiri (D) Rantham bhore
- Who launched the Chipko movement?
(A) Rallan (B) Ram Lal Bahuguna
(C) Sunder Lal Bahuguna (D) Hemwati Nandan Bahuguna
- Bamboos, Sal, Sandal wood, Teak are the commercially important species of which type of forest ?
(A) Alpine Tundra Vegetation (B) Tropical rain forests
(C) Tropical Deciduous forests (D) Temperate forests
- Where are the Sunderbans located?
(A) West Bengal (B) Rajasthan (C) Orissa (D) Kerala
- Where is Nokrek Bio-reserve located?
(A) Uttar Pradesh (B) Meghalaya (C) Andaman & Nicobar (D) Kerala

SUBJECTIVE DPP - 5.2

Very short answer type question:

- What is virgin vegetation?
- What is an eco-system?
- What is India's rank in the world and in Asia in plant diversity?
- Where are evergreen forests found in India?
- Which natural vegetation is most predominant in India?

6. Name useful trees of thorn forests.
7. How many species of birds and fish are found in India?
8. How many national parks and wildlife sanctuaries have been established in India?
9. Name major vegetation regions which the date palm and mahogany trees belong. Name two projects which were established to protect endangered species of wild life.
10. Name two sub-types of tropical deciduous forests. Name one area where wild asses are found. Name the national animal of India.

Short answer type question:

11. What is meant by vegetation? How much natural is the 'natural vegetation' of the India today?
12. Which factors are responsible for the distribution of plants and animals of India?
13. Explain the significance of flora and fauna in an ecosystem. How are they interrelated?
14. Why there is a need to conserve bio-diversity?
15. Why are the evergreen forests found on western slopes of the Western Ghats?
16. Describe the climatic conditions in which Thorn forests and Scrubs are found. Name the plant species found over here.
17. "The Himalayas harbour a hardy range of animals". Explain
18. Mention the main causes of threat to nature.
19. Distinguish between: Dry deciduous and moist deciduous forests

Long answer type question:

20. Why are tropical evergreen forests not commercially exploited? Give climatic conditions and distribution of these forests.
21. Name the different types of vegetation found in India and describe the vegetation of high altitudes.
22. Quite a few species of plants and animals are endangered in India. Why?
23. Why has India a rich heritage of flora and fauna?

A N S W E R K E Y

(Objective DPP 5.1)

| Que. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| Ans | D | A | C | B | A | A | A | B | C | C | D | C | C | A | B |



POPULATION



SL -06(G)

The people are important to develop the economy and society. The people make and use resources and are themselves resources with varying quality. Coal was only a piece of rock, until people were able to invent technology to obtain it and make it a 'resource'. Hence, population is the pivotal element in social studies. It is the point of reference from which all other elements are observed and from which they derive significance and meaning. Their numbers, distribution, growth and characteristics or qualities provide the basic background for understanding and appreciating all aspects of the environment. Human beings are producers and consumers of earth's resources. Therefore, it is important to know how many people are there in a country, where do they live, how and why their numbers are increasing and what are their characteristics.

Three major aspects of population are of primary concern

- (i) Population size and distribution
How many people are there and where are they located?
- (ii) Population growth and processes of population change
How has the population grown and changed through time?
- (iii) Characteristics or qualities of the population
What are their age, sex-composition literacy levels, occupational structure and health conditions?

Census : A census is an official enumeration of population done periodically? In India the first census was held in the year 1872. The first complete census however was taken in the year 1991. Since then censuses have been held regularly every tenth year. The Indian census is the most comprehensive source of demographic, social and economic data.

POPULATION SIZE AND DISTRIBUTION

(a) Indian's Population size and Distribution by Numbers:

- (i) Indian's population as on March 2001 stood at 1028 million, which account for 16.7 per cent of the world's population. These 1.02 billion people are unevenly distributed over our country's vast area of 3.28 million square km, which accounts 2.4 percent of the world's area.
- (ii) The 2001 Census data reveals that Uttar Pradesh with a population size of 166 million people is the most populous state of India. Uttar Pradesh accounts for about 16 percent of the country's population. On the other hand, the Himalayan state Sikkim has a population of just about 0.5 million and Lakshadweep has only 60 thousand people.
- (iii) Almost half of Indian's population lives in just five states. These are Uttar Pradesh, Maharashtra, Bihar, West Bengal, and Andhra Pradesh. Rajasthan, the biggest state in terms of area, has only 6.5 percent of the total population of India.

(b) "A Large population has both Economic Advantages and Disadvantages.":

A large population makes positive contribution to economic growth.

- (i) It ensures adequate supply of labor force.
- (ii) Large number of people can be trained in all kinds of skills at all levels.
- (iii) It provides a ready domestic market for all types of goods. This encourages the producers to produce on large scale.

A large population also work as a serious constraint on economic growth.

- (i) National income gets distributed among larger number of people, therefore, per capita income remains low.
- (ii) A large part of the national income gets spent on consumption. This reduces the size of savings. Thus, less capital remains available for investment.
- (iii) Rising population results in a rise in pressure on land. This adversely affects productivity in agriculture.
- (iv) Rising population makes increasing demands on infrastructure, both social and economic.

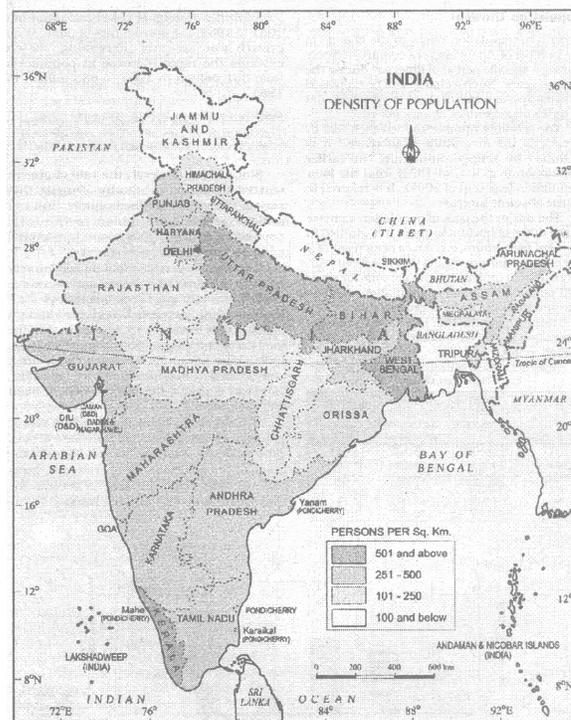
In short, a large part of the national effort goes to maintain the present standards of living. these do not result in any economic improvement. therefore, poverty and unemployment perpetuate.

(c) Indian's Population Distribution by Density

Population density is calculated as the number of persons per unit area. India is one of the most densely populated countries of the world. the population density of India in the year 2001 was 324 persons per sq. km. densities vary from 904 persons per sq. km in West Bengal to only 13 persons per sq km in Arunachal Pradesh.

$$\text{Density of population} = \frac{\text{Total population of the country}}{\text{Total land area of the country (in sq. km.)}}$$

- (i) **Low Density:** The states of Jammu and Kashmir, Himachal Pradesh, Uttaranchal, Arunachal Pradesh, Nagaland, Manipur, Tripura, Meghalaya, Rajasthan And Madhya Pradesh Have Very Low Population Density. Rugged terrain and unfavorable climatic conditions are mainly responsible for the sparse population in these areas.
- (ii) **Moderate Density:** The bulk of the peninsula blocks and Assam have moderate density of population. Distribution of population is influenced here by the rocky mature of the terrain, low to moderate rain, and shallow and less fertile soil.
- (iii) **High density :** They Northern Plains, Tamil Nadu and Kerala have high to very high density of population because of the plain terrain, rice and fertile soil, abundant rainfall and moderate climate.



Densely of Population in India

POPULATION GROWTH AND PROCESSES OF POPULATION CHANGE

population is a dynamic phenomenon. the numbers, distribution and composition of the population are constantly changing. this is the influence of the three processes, namely - births, deaths and migrations.

(a) Population Growth:

- (i) Growth of population refers to the change in the number of inhabitants of a country / territory during a specific period of time. Such a change can be expressed in two ways: in terms of absolute numbers and in terms of percentage change per year.
- (ii) The absolute number added each year or decade is the magnitude of increase. It is obtained by simply subtracting the earlier population from the later population. It is referred to as the absolute increase. When a low annual rate is applied to a very large population, it yields a large absolute increase. India's current annual increase in population of 16.5 million is large enough to neutralize efforts to conserve the resource endowment and environment.
- (iii) The rate or the pace of population increase is the other important aspect. it is studied in percent per annum, e.g. a rate of increase of 2 percent per annum means that in a given year, there was an increase of two persons for every 100 persons in the base population. this is referred to as the annual growth rate.
- (iv) India's population has been steadily increasing from 361 million in 1951 to 1028 million in 2001. From 1951 to 1981, the annual rate of population growth was steadily increasing. Since 1981, however, the rate of growth started declining gradually. During this period, birth rates declined rapidly. The declining trend of growth rate is indeed a positive indicator of the efforts of birth control. Despite that, the total additions to the population base continue to grow, and India may overtake China in 2045 to become the most populous country in the world.

(b) Processes of Population change / Growth :

There are three main processes of population change. They are :

- (i) Birth rates (ii) Death rates and (iii) Migration.

The natural increase of population is the difference between birth rates and death rates.

Birth rate: Birth rate indicates the number of births in a country during a year per 1,000 population.

Death rate: Death rate indicates the number of deaths in a country during a year per 1,000 population.

Main cause of the rapid rate of growth of the Indian population is the fast decline in death rates.

Since 1981, birth rates have started declining gradually, resulting in a gradual decline in the rate of population growth. The reasons for this trend are:

- (i) Most of the people especially in urban areas have adopted two child norm.
- (ii) Birth rate has also declined at a faster rate.
- (iii) Standard of living has increased considerably.
- (iv) Women folk are more conscious of their health.
- (v) Family Welfare Schemes are being adopted in a big way.
- (vi) Muslim population is also trying to keep their family small.

Migration: Migration means movement of people across regions and territories. Migration can be internal or international. In India, most migrations have been from rural; to urban areas because of the 'push' factor in rural areas. These are adverse conditions of poverty and unemployment in the rural areas and the 'pull' of the city in terms of increased employment opportunities and better living conditions. Migration is an important determinant of population change. It changes not only the population size but also the population composition of urban and rural populations in terms of age and sex composition. In India, the rural-urban migration has resulted in a steady increase in the percentage of population in cities and towns. The urban population has increased from 17.29 percent of the total population in 1951 to 27.28 percent in 2001. There has been a significant increase in the number of 'million plus cities' from 23 to 35 in just one decade i.e. 1991 to 2001.

Impact of Urbanisation in India:

- (i) Rapid Urbanisation leads to lack of facilities like housing, sanitation, water, power and education, etc. slums and other social tensions are created. Crime rate increases.
- (ii) it puts heavy pressure on transport. Heavy rush on roads creates transport problems traffic jams, accidents, etc. high Urbanisation creates congestion and pollution it reduces forest cover and agricultural land. This leads to ecological imbalance and environmental pollution.

| Pollution Growth | Pollution Change |
|---|--|
| Growth of pollution refers to change in the number of people of a country during a specific period of time. | Change in population is due to birth rates, Death rates and migration. |
| Pollution growth can be expressed in terms of absolute numbers and in terms of percentage. | If birth rate is high and death rate is low, The population will increase and will bring Change. |
| Absolute numbers are obtained by the Earlier pollution (e.g., that of 1991) From the pollution of 2001. | Since 1981 birth rates have also started Declining gradually, resulting in gradual Decline in absolute numbers. |
| Pollution growth is also obtained in Per cent per annum, e.g., a rate of increase Of 20% per annum means that there is an Increase of 2 persons for ever 100 persons. | Migration is important determinant of Population change. it changes not only the Populationsize but also the population Composition of urban and rural population in Terms of age and sex composition. |
| India’s population has been steadily Increasing from 361 million in 1951 to 1028 million in 2001. | Due to rural-urban migration, the urban Population in 27.78%. in 2001, “Million plus cities” have increased from 23 to 35 in one decade, i.e., 1991 to 2001. |

(c) Age composition:

Age composition of a population is the number of people in different age groups in a country. It is one of the most basic characteristics of a population. A person’s age influences what he needs, buys, does and thinks. Number and percentage of a population found within the children (young), adult (middle aged) and the aged (old) groups determine population’s social and economic structure.

Age composition of population is expressed in terms of three broad age groups –

- (i) Children below the working age (below 15 years) – They are economically unproductive and need to be provided with food, clothing, education and medical care.
- (ii) Working Age (15 to 59 years) - they are economically productive and biologically reproductive. They comprise the working population.
- (iii) aged (above 59 years) – They can be economically productive though they may have retired. They may be working voluntarily but they are not available for employment through recruitment.

The dependent population is either in the age group of below 15 years or in the age group of over 59 years. 41.3 % of Indian population who depend on 58.7% of Indian population who are of working age. So the percentage of dependent population is quite large. This is putting heavy burden on the families and State.

(d) Sex Ratio:

Sex ratio is defined as the number of females per 1000 males in the population. According to the 2001 census, the sex ratio in India was 933 females per 1000 males. This information is an important social indicator to measure the extent of equality between males and females in a society at a given time. The sex ratio in the country has always remained unfavorable to females. Kerala has a sex ratio of 1058 females per 1000 males, Pondicherry has 1001 females for every 1000 males, while Delhi has only 821 females per 1000 and Haryana has just 861.

(e) Literacy Rates:

Literacy is a very important quality of a population. Low levels of literacy are a serious obstacle for economic improvement. According to the Census of 2001, a person aged 7 years and above who can read and write with understanding in any language, is treated as literate. The literacy rate in the country as per the Census of 2001 is 64.84 percent; 76.026 per cent for males and 53.67 per cent for females.

(f) Occupational structure:

“The distribution of working population of an economy according to different occupations is known as occupational distribution of population or occupational structure. ” On the basis of economic activities the Central Statistical Organisation divides the Indian economy into three main sectors:

- (i) Primary Sector: Agriculture, animal husbandry, forestry, logging, fishery etc. are collectively known as Primary activities. these are primary because production is carried on with the help of nature.
- (ii) Secondary Sector: Manufacturing industries are known as Secondary activities. All manufacturing units like small-scale industry, large-scale industry, construction work etc. are included in secondary sector.
- (iii) Tertiary Sector: It is sector which provides services to both primary as well as secondary sector. it includes transport, communication, banking, insurance, public administration, defense etc.

Developed nations have a high proportion of people in secondary and tertiary activities. developing countries tend to have a higher proportion of their workforce engaged in primary activities. In India, about 64 percent of the population is engaged only in agriculture. the proportion of population dependent on secondary and tertiary sectors is about 13 and 20 per cent respectively.

Need to change the present occupational structure of India:

- (i) Too much dependence on agriculture: There is too much pressure on agriculture which cannot bear such a burden. Average productivity of workers in agriculture is very low.
- (ii) To remove disguised unemployment: Disguised unemployment is a curse because agriculture is facing this problem and to remove this there is a need to change the present occupational structure.
- (iii) To increase the production: Because low percentages of workers are engaged in production so rate of production is low.
- (iv) To remove poverty and unemployment: A change of occupational structure is necessary to remove poverty and unemployment.
- (v) For balanced economic development: A change of occupational structure is also required for balanced economic development.

(g) Health:

health is an important component of population composition, which affects the process of development. due to the sustained efforts of government programmes death rates have declined from 25 per 1000 population in 1951 to 8.1 per 1000 in 200 and life expectancy at birth has increased from 36.7 years in 1951 to 64.6 years in 2001. the substantial improvement is the result of many factors including improvement in public health, prevention of infectious diseases and application of modern medical practices in diagnosis and treatment of ailments.

Despite considerable achievements, the health situation is a matter of major concern for India. The per capital calorie consumption is much below the recommended levels and malnutrition affects a large percentage of our population. Safe drinking water and basic sanitation amenities are available to only one-third of the rural population.

Advantages of having healthy population:

- (i) It is the healthy population which is considered the most important resource.
- (ii) Healthy population decreases the dependency ratio.
- (iii) It is healthy population which can make full use of natural resources.

(h) Adolescent Population:

The most significant feature of the Indian population is the size of its adolescent population. It constitutes one-fifth of the total population of India. Adolescents are generally grouped in the age-group of 10 to 19 years. They are the most important resource for the future. Nutrition requirements of adolescents are higher than those of a normal child or adult. Poor nutrition can lead to deficiency and stunted growth. The diet available to adolescents is inadequate in all nutrients. A large number of adolescent girls suffer from anemia. Their problems have so far not received adequate attention in the process of development.

(i) National Population Policy:

Recognizing that the planning of families would improve health and welfare, the Government of India initiated the comprehensive Family Planning Programme in 1952. The Family welfare Programme has sought to promote responsible and planned parenthood on a voluntary basis.

Major features of NPP 2000:

- (i) The NPP 2000 provides a policy framework for imparting free and compulsory school education to the children up to 14 years of age.
- (ii) It aims at reducing infant mortality rate to below 30 per 1000 live births. another aim is to achieve universal immunization of children against all vaccine preventable diseases.
- (iii) Promotion of delayed marriage for girls.
- (iv) It also aims at making family welfare a people centered programme.

(j) Adolescents and NPP 2000:

NPP 2000 identified adolescents as one of the major sections of the population that need greater attention. Besides nutritional requirements, the policy put greater emphasis on other important needs adolescents including protection from unwanted pregnancies and sexually transmitted diseases (STD). it called for programmes that aim towards encouraging delayed marriage and child bearing, education of adolescents about the risks of unprotected sex, making contraceptive services accessible and affordable, providing food supplements, nutritional services, strengthening legal measures to prevent child marriage.

EXERCISE

OBJECTIVE DPP - 6.1

- 1. Migration change the number, distribution and composition of the population in :
(A) The area of departure (B) The area of arrival (C) Both A & B (D) None of the above
- 2. A large proportion of children in a population is a result of:
(A) High birth rates (B) High life expectation (C) High death rates (D) More married couples
- 3. The magnitude of population growth refers to :
(A) The total population of an area (B) The member of persons added eac
(C) The rate of which population increases (D) The number of female per thousand males
- 4. According to the census of 2001, a 'literate' person in one who :
(A) Can read, write his/her name
(B) Can read and write any language
(C) is 7 years old and can read and write any language with understanding
(D) All of the above
- 5. The highest density of population is in:
(A) West Bengal (B) Tamil Nadu (C) Uttar Pradesh (D) Madhya Pradesh
- 6. The lowest density of population is in:
(A) Sikkim (B) Meghalaya (C) Arunachal Pradesh (D) Rajasthan
- 7. The lowest sex ration is in:
(A) Nagaland (B) Sikkim (C) Mizoram (D) Arunachal Pradesh
- 8. Which of the following states has a favorable female ratio?
(A) Kerala (B) Tamil Nadu (C) Kamataka (D) Nagaland
- 9. India's share in world population:
(A) 20% (B) 16.7% (C) 18% (D) 14.7%
- 10. The average density of population in India in 2001 was :
(A) 284 person/sq. km (B) 324 persons sq. km (C) 250 persons sq. km (D) 395 persons sq. km
- 11. The sex ration in India according to 2001 census was :
(A) 1000 : 972 (B) 1000 : 933 (C) 980 : 1000 (D) 1000 : 880

12. The sex ration in Kerala in 2001 was:
 (A) 1000: 1058 (B) 1000: 958 (C) 980: 1000 (D) 1000: 1001
13. The sex ration in Pondichery in 2001 was:
 (A) 1000: 999 (B) 1000: 1001 (C) 1000: 958 (D) 1000: 1000
14. The female literacy level in India in 2001 was:
 (A) 65% (B) 54% (C) 75% (D) 80%

SUBJECTIVE DPP - 6.2

Very short answer type question:

1. What is Census?
2. What is India's share in world population?
3. Name any to states which have high density of population.
4. What is a Primary Sector?
5. What is dependent ration of Population?
6. Why is the rate of population growth in India declining since 1981?
7. Why do we study population?
8. Give the formula for density of population and also give the density of population of India.
9. Why Assam and most of the peninsular states have moderate population densities?
10. How 'push' and 'pull' factor is responsible for migration?

Short answer type question:

11. Distinguish between dependent and productive population.
12. Growing urban population has created many problems in the urban areas'. Explain.
13. Discuss the major components of population growth.
14. Discuss about age-composition of India's population and its implications.
15. What is meant by occupational structure? Explain the occupational structure of India.
16. What art the advantages of having a healthy population?
17. What are the main objectives of the New National Population Policy?

Long answer type question:

18. What is urbanization of population? Mention its causes and impact.
19. Write about demography, census, birth rate, death rate and increase in population.
20. Why it is necessary to change the present occupational structure of India?
21. Why has there been a rapid rise in India's population after independence?
22. Comment on migration as a determinant of population change in India.
23. Distinguish between population growth and population change.
24. What is sex ration? Why it is going against female > explain the position of sex ratio in India.
25. How education a signification in the population of country. Account for the literacy in India in this connection.
26. Discuss the problem of adolescents in India.
27. How population growth is related to economic growth, discuss its relation to India?

ANSWER KEY

(Objective DPP 6.1)

| Que. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|
| Ans | C | A | C | C | A | C | D | A | B | B | B | A | B | B |



DEMOCRACY IN THE CONTEMPORARY WORLD



SL-01(C)

TWO TALES OF DEMOCRACY

(a) Establishment of Democracy in Chile:

Salvador Allende was the elected President of Chile. The government was pro-poor and pro-worker which did not find favour with rich and powerful sections. On March 11, 1976, military under General Pinochet marched into the Presidential palace bombarded it, Allende was killed. Government Pinochet ruled the country for next 17 years. Pinochet's government tortured and killed several of those who supported Allende and those who wanted democracy to be restored. He organized referendum in 1988 in which the people were asked to express their confidence in Pinochet. People rejected Pinochet, political freedom was restored. Since then four presidential elections have been held in Chile. In January 2006, Michelle Bachelet was elected president of Chile. Democracy has come back to Chile and has established itself there.

(b) Establishment of Democracy in Poland:

The Polish United Workers Party, a communist party ruled over Poland with a strong support of the government of USSR. On August 14, 1980, the workers of Lenin Shipyard in the city of Gdansk went on a strike. Walesa assumed the leadership of striking workers. Government was forced to enter into an agreement with the workers which came to be known as the Gdansk agreement. The agreement provided freedom to organize protest and express opinions. An independent trade union Solidarity was formed. It grew in strength. In December 1981, Under General Jaruzelski, Martial law was imposed. All the rights granted in Gdansk agreement was withdrawn. Solidarity organized a series of strikes in opposition to the government actions. Another agreement was signed in April 1989, which provided for free presidential elections. Walesa was elected president of Poland in October 1990. Thus democracy came to be restored in Poland.

(c) Characteristic of Various Governments under Various Leaders:

| | |
|--------------------------|---|
| Chile under Allende: | Rulers elected by the people More than one party exist People enjoyed basic political freedom |
| Chile under Pinochet: | Criticism of the government not allowed Military dictatorship, missing people Ruler not elected by the people |
| Chile under Bachelet: | The president was once a political prisoner Ruler elected by the people |
| Poland under Jaruzelski: | Criticism of the government not allowed Widespread corruption Government owned all industries |
| Poland under Walesa: | More than one parties exist Ruler elected by the people |

Common features and differences between the government of Allende in Chile, Walesa in Poland and Michelle in Chile

Common features: These three governments shared some common features. power was enjoyed by the people and not by the army.

The people enjoyed some basic political freedoms.

Differences: Differed in their approach towards social and economic matters.

- (i) Allende preferred government control on all big industries and the economy.
- (ii) Walesa wanted the market to be free of government interference.
- (iii) Michelle stands somewhere in the middle on this issue, with both the government and individuals owning the industries.

DEMOCRACY

Democracy is a form of government that allows people to choose their rulers. in a democracy:

- (i) Only leasers elected by people should rule the country, and
- (ii) People have the freedom to express views, freedom to organize and freedom to protest.

PHASES IN THE EXPANSION OF DEMOCRACY

(a) The Beginning:

- (i) French Revolution of 1789 did not establish a secure and stable democracy in France. Throughout the nineteenth century, democracy in France was overthrown and restored several times. Yet the French Revolution inspired many struggles for democracy all over Europe.
- (ii) In Britain, the progress towards democracy started much before the French Revolution. But the progress was very slow. through the eighteenth and the nineteenth centuries, series of political events reduced the monarchy and feudal lords. the right to vote was granted to more and more people.
- (iii) The British colonies North America declared themselves independent in 1776. in the next few years these colonies came together to form the United States of America. they adopted a democratic constitution in 1787.
- (iv) In the nineteenth century struggles for democracy often centered round political equality, freedom and justice. One major demand was the right for every adult citizen to vote. Many European countries that were becoming more democratic did not initially allow all people to vote. In some countries only people owning property had the right to vote. Often women did not have the right to vote. in the United States of America, the blacks all over the country could not exercise the right to vote until 1965.
- (v) By 1900 New Zealand was the only country where every adult had voting right. Early democracies were established in Europe, North America and Latin America.

(b) End of Colonialism:

for a very long time most countries in Asia and Africa were colonies under the control of the European nations. People of the colonized countries had to wage struggles to achieve independence. They not only wanted to get rid of their colonial masters, but also wished to choose their future leaders. Many of these countries become democracies immediately after the end of the Second World War in 1945.

Course of Democracy in Ghana in Africa:

Ghana used to be a British colony. It was called Gold Coast. it got independent in 1957. Kwame Nkrumah, the son of a goldsmith and a teacher by profession, played an active role in making Ghana independent. He was Ghana's President from 1957-1966. He was known internally for his attempts to promote the concept of Pan-Africanism. Nkrumah also played an important role in OAU (Organisation of African Unity). He deviated from the path of democracy by electing himself president for life. His major flaw was a desire for absolute power. Due to the unpopular measures taken by him, a coup occurred in 1966. Ghana came under military rule and ceased to be a democracy.

(c) Recent Phase:

"The big push towards democracy came after 1980".

The period after 1980 witnessed to fast emergence of democracies in different parts of the world.

- (i) Democracy was revived in several countries of Latin America.
- (ii) Soviet Union disintegrated in 1991. As a result: Soviet influence over the former east European countries vanished; they changed themselves into democracies.
The former 15 Republics of the USSR got independent and opted for democracy.
- (iii) In India's neighborhood, countries like Pakistan, Bangladesh and Nepal made a transition to democracy. Besides the aspirations of the local people in all these countries, a major reason for expansion of democracy was the open support extended by the USA to such demands.

Struggle of the people of Myanmar to establish a democratic government:

- (i) Myanmar gained freedom from colonial rule in 1948 and became a democracy. But the democratic rule ended in 1962 with a military coup.
- (ii) In 1990 elections were held for the first time after almost 30 years. the National League for Democracy, led by Aung San Suu Kyi, won the election.
- (iii) The military leaders of Myanmar refused to step down and did not recognize the election results. Instead, the military put the elected pro-democracy leaders, including Suu Kti, under house arrest. Political activists accused of even the most trivial offences been jailed.
- (iv) anyone caught publicly airing views or issuing statements critical of the regime can be sentenced up to twenty years in prison.
- (v) Due to the coercive policies of the military-ruled government in Myanmar, about 6 to 10 lakh people in that country have been uprooted from their homes and have taken shelter elsewhere.
- (vi) Despite being under house arrest, Suu Kyi continued to campaign for democracy. her struggle has won international recognition. She has also been awarded the Noble Peace prize. Yet the people in Myanmar are still struggling to establish democratic government in their country.

DEMOCRACY AT THE GLOBAL LEVEL

United Nations:

The UN is a global association of nations of the world to help cooperation in international law, security, economic development and social equity. The UN Secretary General is its chief administrative officer. General Assembly: 193 countries form the membership of General Assembly, also know as world parliament, every member country sends five representatives but is allowed only one vote. Its headquarters are located in New York.

Security Council: Most important organ of UN. Has 15 members-Five permanent (Britain, Russia, China, America and France) and 10 non-permanent members elected for years each. Permanent members enjoy Veto power. Security Council can impose trade sanctions on the warring countries and can take military action against them.

Economic and Social Council: Economic and Social Council consists of 54 members and they are elected by the General Assembly for a period of three years. this council is mainly responsible for solving economic and social problems of the world.

Trusteeship Council: Trusteeship Council is responsible for supervising the administration of trust territories. The Trusteeship Council consists of an equal number of administrating and non-administrating powers.

International Court of Justice: It consists of fifteen judges who are elected by the General Assembly on the recommendations of the Security Council for Nine years. International Court of Justice decides the cases between the states.

Secretariat: Secretariat comprises a Secretary General and such staff as the organization may require.

Secretary General is the chief Administrative Officer of the Secretariat.

Is the UNO a democratic organization?

Every one of the 192 member countries of the UN has one vote in the UN General Assembly. It meets in regular yearly sessions under a president elected from among the representatives of the member countries. General Assembly is like the parliament where all the discussion takes place. in that sense the UN world appear to be a very democratic organisation.

But the General Assembly cannot take any decision about what action should be taken in a conflict between different countries. The fifteen-member Security Council of the UN takes such crucial decisions. The Council has five permanent members-US, Russia, UK, France and China. Ten other members are elected by the General Assembly for two-year terms. The real power is with five permanent members. The permanent members, especially the US, contribute most of the money needed for the maintenance of the UN. Each permanent member has veto power. It means that the Council cannot take a decision if any permanent member says no to that decision. This system has led more and more people and countries to protest and demand that the UN becomes more democratic.

Is the international Monetary Fund a democratic organization?

No, IMF is not working democratically.

- (i) International Monetary Fund is one of the biggest moneylenders for any country in the world.
- (ii) Its 173 member states do not have equal voting rights.
- (iii) The vote of each country is weighed by how much money it has contributed to the IMF.
- (iv) Nearly half of the voting power in the IMF is in the hands of only seven countries (US, Japan, France, UK, Saudi Arabia, China and Russia).
- (v) The remaining 166 countries have very little say in how this international organization takes decisions.

Democracy Promotion:

Story of Iraq:

Iraq became independent from British Rule in 1932. Since 1968, it was ruled by Arab Socialist Ba'ath Party. In 1979, Saddam Hussein became the President of Iraq. After becoming the president, Saddam ran a dictatorial government and suppressed any dissent or opposition to his rule. He was known to have got a number of political opponents killed and persons of ethnic minorities massacred.

The US and its allies like Britain alleged that Iraq possessed secret nuclear weapons and other 'weapons of mass destruction' which posed a big threat to the world. But when a UN team went to Iraq to search for such weapons, it did not find any. Still the US and its allies invaded Iraq, occupied it and removed Saddam Hussein from power in 2003. The US installed an interim government of its preference. The war against Iraq was not authorized by the UN Security Council. Kofi Annan, the UN Secretary General, said that the US war on Iraq was illegal. After the war, it is being argued that it was important to end the dictatorial rule of Hussein and set up a democratic government in that country.

DIFFICULT TIES PEOPLE FACE IN A NON-DEMOCRATIC COUNTRY

- (i) **Non-responsible Government:** Non-democratic Governments are not answerable to the people or any other institution. It can do as it wishes and no one can question it. Pinochet's government in Chile tortured and killed several citizens who wanted democracy to be restored. More than 3000 people were killed by the military.
- (ii) **Non-Sovereign:** Most of the non-democratic governments are non-sovereign. The Government of Pinochet, who became the President of Chile through military coup, was totally dependent on USA for its foreign policy.
- (iii) **No political party or single party:** Another major problem for the people of non-democratic countries is that they have little choice. In Poland only Polish United Workers' Party was allowed to function. Those who spoke against the leaders or the party were put in prison.
- (iv) **No-Freedom Rights:** People of non-democratic government don't enjoy basic freedoms like freedom of speech, freedom to move freely, freedom to form unions or associations etc. When in Poland Solidarity started exposing widespread corruption in the government, thousands of Solidarity members were put in prison.

Freedom which are usually taken away when a democracy is overthrown by the military-

- (i) Freedom to move freely
- (ii) Freedom of speech and expression
- (iii) Freedom to assemble peacefully
Freedom to form unions and associations
- (iv) Freedom of religion
- (vi) Freedom of equality before law.

EXERCISE

OBJECTIVE DPP - 1.1

1. Who was the President of Chile, when the government was overthrown on 11 September, 1973?
(A) Salvador Allende (B) Michelle Bachelet
(C) General August Pinochet (D) Lech Walesa
2. Military Coup took place in Chile on
(A) 11 September 1975 (B) 21 September 1976
(C) 11 September 1973 (D) 11 September 1974
3. In which year referendum was held in Poland on Pinochet's military dictatorship?
(A) 1995 (B) 1988 (C) 1992 (D) 1982
4. Which of the following was the feature of Allende government of Chile?
(A) Widespread Corruption (B) Free Market
(C) Government control on big industries (D) Foreign intervention in domestic affairs
5. Which of the following is a feature of democracy?
(A) Franchise based on property qualification (B) Franchise based on education qualification
(C) Landlords are the voters (D) Universal Adult Franchise
6. In America universal adult Franchise was introduced in :
(A) 1789 (B) 1950 (C) 1935 (D) 1965
7. United Nations was established on:
(A) 24th October 1945 (B) 20th October 1946 (C) 20th October 1947 (D) 1st January 1950
8. Organs of the United Nation are:
(A) Four (B) Five (C) Six (D) Three
9. Which of the following country is not a permanent member of the Security Council?
(A) India (B) America (C) England (D) Russia
10. When was Saddam Hussain removed from power in Iraq?
(A) 2000 (B) 2003 (C) 1998 (D) 2005

SUBJECTIVE DPP - 1.2

Very short answer type question:

1. What do you mean by 'democracy'?
2. Mention any two indicators which showed that after military coup of 11 March, 1973, Chile become a non-democratic country.
3. Who was Lech Walesa? How he was related to Solidarity?
4. Explain universal adult franchise.
5. Name three events which contributed to the establishment of democracy in the world.
6. "The army rule in Myanmar is undemocratic". Justify by giving four examples

7. What is veto power? DO you think it promotes world democracy /
8. What is United Nations?
9. Prove that the international organizations are becoming less democratic.
10. Which freedom is usually taken away when a democracy is overthrown by the military /

Short answer type question:

11. Describe in brief the military coup and subsequent restoration of democracy in Chile.
12. Describe in brief the pro-democracy movement in Poland.
13. How were the three democratically elected governments of Allende in Chile, Walesa in Poland and Michelle in Chile different?
14. Explain the different phases of the spread of democracy in the world.
15. Explain the struggle of the people of Myanmar to establish a democratic government.

Long answer type question:

16. Should there be a world government? If yes, who should elect it? And, what powers should it have?
17. Write a short essay on the life of Aung San Suu Kyi.
18. What is the structure of UN? Why is there demand for UN to become more democratic?
19. Discuss briefly whether international organizations function in a democratic manner.
20. What are the difficulties, people face in a non-democratic country? Give answers drawing from the examples gives in this chapter.

ANSWER KEY

(Objective DPP 1.1)

| Que. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------|---|---|---|---|---|---|---|---|---|----|
| Ans | A | C | B | C | D | D | A | C | A | B |



WHAT IS DEMOCRACY? WHY DEMOCRACY ?



SL -O2(C)

WHAT IS DEMOCRACY ?

The word 'Democracy' has been derived from a Greek word 'Demokratia'. 'Demos' means people and 'Kratia' means rule. So, democracy is the rule by the people.

(a) Common Features of Democratic government and Non-democratic government:

Democratic Government

- (i) Government formed by people's representatives.
- (ii) Representatives elected in a free and fair election.
- (iii) Different decisions of the government are taken in an open manner; debate in media, invitation to experts' opinion, representations by the common man form a part of decision making process.
- (iv) Citizens have a right to oppose and citizen any government action and policy.
- (v) Citizens have a right to protest, as long as the mode of protest is within the boundaries of law.

Non-democratic Government:

- (i) Rule by force, by a person or by a group of persons.
- (ii) No opposition is permitted
- (iii) No criticism of government views or of rulers is tolerated.
- (iv) Decisions are taken in an arbitrary manner, without reference to any rules or laws.
- (v) Citizens have no rights.
- (vi) Citizens cannot resort to any method of protest.

FEATURES OF MOCRAO

(a) Major decisions by elected leaders:

A democratic government is one in which the people's representatives participate in decision making process. They own a collective responsibility for all the decisions taken by the government. There are example where representatives of people are chosen; but they are not allowed to participate in decision making process. This happens in many dictatorships and monarchies, e.g., currently in Pakistan under General Musharraf. in Pakistan, General Parvej Musharraf acquired power in October 1999 through an military coup. in Pakistan though they formally have an elected parliament and government but the real power is with those who are not elected. not withstanding the existence of elected national and provincial assemblies, these countries can not be classified as a democratic country. This gives us the first feature. in a democracy the final decision making power must rest with those elected by the people.

(b) A Democracy must be based on a free and fair election :

"In China, elections are regularly held after 5 years for electing the country's parliament, but still it cannot be called democratic country".

- (i) In China, elections are regularly held after five years for electing the Country's parliament, called Quanguo Renmin Daibiao Dahui (National People's Congress).
- (ii) The National People's Congress has the power to appoint the President of the country.
- (iii) It has nearly 3000 members elected from all over China. Some members are elected by the army.
- (iv) Before contesting elections, a candidate needs the approval of the Chinese Communist Party.
- (v) Only those who are members of the Chinese Communist Party or eight smaller parties allied to it were allowed to contest election held in 2002-03.
- (vi) The government is always formed by the Communist Party.
- (vii) If China had multi party elections, an opposition party and an independent press then so many people may not have died during the famine of 1958-1961.

“Since its independence in 1930, Mexico holds elections after every six years to elect its president. The country has never been under military or dictator's rule. But still it cannot be called democratic country.”

Free and fair election is the basic feature of democracy but in Mexico this is not so:

In Mexico until 2000, every election was won by party called PRI (Institutional Revolutionary Party). Opposition parties did contest elections, but never managed to win. The PRI was known to use many dirty tricks to win elections. All those who were employed in government offices had to attend its party meetings. Teachers of government schools used to force parents to vote for the PRI. Media largely ignored the activities of opposition political parties except to criticize them. Sometimes the polling booths were shifted from one place to another in the last minute, which made it difficult for people to cast their votes. The PRI spent a large sum of money in the campaign for its candidates.

Here we have the second feature of Democracy. Holding elections of any kind is not sufficient. The elections must offer a real choice between political alternatives. and it should be possible for people to use this choice to remove the existing rulers, if they wish so. So, a democracy must be based on a free and fair election where those currently in power have a fair chance of losing.

(c) One person, one vote, one value:

A true democracy grants its citizens what is called 'universal adult franchise'. it means all the adults have a right to vote without any discrimination based on sex, color, race, caste or class. Each person can cast one vote; all votes are counted; the person who gets the maximum number of votes gets elected in many countries, this is not how the system works. There are many instances of denial of equal right to vote:

- (i) In Saudi Arabia women do not have the right to vote.
- (ii) Estonia has made its citizenship rules in such a way that people belonging to Russian minority find it difficult to get the right to vote.
- (iii) In Fiji, the electoral system is such that the vote of an indigenous Fiji has more value than that of an Indian-Fijian.

That given us the third feature of democracy: in a democracy, each adult citizen must have one vote and each vote must have one value.

(d) Rule of Law and respect for rights:

- (i) In Zimbabwe elections are held regularly but are won by only one party i.e. Zanu-PF. the party uses unfair practices in elections which are against the principles of democracy.
- (ii) Over the years President Mugabe has changed the constitution several times to increase the powers of the president and make him less accountable.
- (iii) In a democracy people and opposition can criticize the government but this is not allowed in Zimbabwe.
- (iv) The government has ignored some court judgments which is also against the principles of democracy.
- (v) Television, radio and press are controlled by the government.

The example of Zimbabwe shows that popular approval of the rulers is necessary in a democracy, but it is not sufficient. Popular government can be undemocratic. Popular leaders can be autocratic. In a democracy, the state should respect some basic rights of the citizen. They should be free to think, to have opinions, to express these in public, to form associations, to protest and take other political actions.

Everyone should be equal in the eyes of law. These rights must be protected by an independent judiciary whose orders are obeyed by everyone. A democratic government cannot do whatever it likes, simply because it has won an election. It has to respect some basic rules. In particular it has to respect some guarantees to the minorities. Every major decision has to go through a series of consultations. The fourth and final feature of democracy: **A democracy government rules within limits set by constitutional law and citizens rights.**

(e) Summary Definition:

Democracy is a form of government in which:

- (i) Rulers elected by the people take all the major decisions;
- (ii) Elections offer a choice and fair opportunity to the people to change the current rulers;
- (iii) This choice and opportunity is available to all the people on an equal basis; and
- (iv) The exercise of this choice leads to a government limited by basic rules of the constitution and citizens rights.

WHY DEMOCRACY?

(a) Arguments in support of democracy:

- (i) A democratic government is a better government because it is a more accountable form of government.
- (ii) Democracy provides a method the quality of decision-making
- (iii) Democracy provides a method to deal with differences and conflicts.
- (iv) Democracy enhances the dignity of citizens.
- (v) Democracy is better than other forms of government because it allows us to correct its own mistakes
- (vi) Democracy is considered the best form of government.

(b) Arguments against the democracy:

- (i) Leaders keep changing in a democracy. This leads to instability.
- (ii) Democracy is all about political competition and power play. There is no scope for morality.
- (iii) So many people have to be consulted in a democracy that it leads to delays.
- (iv) Elected leaders do not know the best interest of the people. It leads to bad decisions.
- (v) Democracy leads to corruption for it is based on electoral competition.
- (vi) Ordinary people do not know what is good for them; they should not decide anything.

BROADER MEANINGS OF DEMOCRACY?

(a) Representative Democracy, its importance:

A representative democracy is one in which people elect their representative to legislatures. These representatives in turn form the government and govern. In this type of democracy, a majority is allowed to take decisions on behalf of all the people.

Representative democracy becomes necessary because of the following reasons:

- (i) Modern Democracies involve such a large number of people that it is physically impossible for them to sit together and take a collective decision.
- (ii) Even if they could, the citizen does not have the time, the desire or the skills to take part in all the decisions.

(b) Nominal democracy and ideal democracy:

A nominal democracy, as we normally use the term, refers to a system of governance which is run by the people's elected representatives.

An ideal democracy is a broader concept. An ideal democracy is a system in which every citizen must be able to play equal role in decision making. For this one does not need just equal right to vote.

Every citizen needs to have equal information, basic education, equal resources and a lot of commitment. There may not be any country in the world which passes this test of democracy. Yet an understanding of democracy as an ideal reminds us of why we value democracy.

ROLL THE CITIZENSHIP PLAYING A DEMOCRACY?

Citizens must learn to tolerate differences and views of all others who disagree with them. That is, the citizens must accept the principle of mutual tolerance and dissent. Citizens must act with a sense of discipline and responsibility. They have a right to express their dissent. They must express their grievance through channels provided by the democratic system. Citizens must participate and seek to influence the public opinion. This can happen only when they are well-informed on civic matters. Citizens must exercise their right to vote. This provides a direction to the whole democratic process.

DEMOCRACY A GOVERNMENT BY DISCUSSION AND PERSUASION

It is a government by discussion because of the following reasons:

- (i) Policy matters are decided after through discussion; in absence of consensus, the majority view prevails.
- (ii) Majority view is respected and given due consideration during discussion.
- (iii) Majority view is heard and not shut down by force.

It is a government by persuasion because:

- (i) The opposition is encouraged to participate in debates about government policies and programmes
- (ii) During the discussion opponents are persuaded to accept the government viewpoint
- (iii) At times the government itself may see merit in what the opposition has to say and accept it.

EXERCISE

OBJECTIVE DPP – 2.1

1. Which of the following countries could be termed as democracy ?
 - (A) Chile, before and after Pinochet's rule
 - (B) Poland, during the communist rule
 - (C) Ghana, during the period of Nkrumah's government
 - (D) Pakistan under General Parvez Musharraf
2. Democracy comes from a ----- word 'Demokratic'.
 - (A) French
 - (B) Russian
 - (C) German
 - (D) Greek
3. Democracy is a form of government in which the rulers-
 - (A) Are hereditary
 - (B) Are chosen after a battle
 - (C) Are elected by the people
 - (D) Are not present
4. In a ----- form of government, the rules are not elected by the people.
 - (A) Presidential
 - (B) Parliamentary
 - (C) Monarchy
 - (D) None of these
5. ----- is a device that ensures we shall be government no better than we deserve.
 - (A) Mechanical Saw
 - (B) Democracy
 - (C) Guillotine
 - (D) Axe
6. In Pakistan, General Parvez Musharraf acquired power in October 1999 through an -
 - (A) Referendum
 - (B) Election
 - (C) Military coup
 - (D) Public opinion
7. A democracy must be based on a free and fair election where those currently in power :
 - (A) Are going to continue
 - (B) Will always remain in power
 - (C) Are never going to be elected again
 - (D) Have a fair chance of losing
8. In a democracy, each adult citizen must have ----- and each vote must have -----
 - (A) One vote, one value
 - (B) Two vote, equal value
 - (C) Three vote, on value
 - (D) None of these

9. Over the years President Mugabe in Zimbabwe has changed the ----- several times to increase the powers of the president and make him less accountable.
(A) Prime Minister (B) Government (C) Constitution (D) Political Boundary
10. A democratic government rules within limits set by ----- law and citizen's rights.
(A) Presidents (B) Dictators (C) Constitutional (D) Peoples
11. critics argue that, Democracy is all about political competition and power play. there is no scope for -----.
(A) People's welfare (B) individual gains (C) independent candidates (D) Morality
12. If China had -----, then so many people may not have died during the famine of 1958-1961.
(A) Multi party elections (B) An opposition party
(C) An independent press (D) All of the above
13. In any society people are bound to have differences of opinions and interests. these differences are particularly sharp in a country like ours which has an -----.
(A) Democratically elected government (B) Amazing social diversity
(C) Enormous population (D) Amazing land features.
14. Democracy is better than other forms of government because it allows us to :
(A) Do whatever we want (B) Spoil our cultural heritage
(C) Correct our own mistakes (D) Earn enormous money
15. "True democracy will come to our country only when no one goes ----- to bed.
(A) Ever (B) Early (C) Hungry (D) None of these

SUBJECTIVE DPP - 2.2

Very short answer type question:

1. Which state in India has a shape similar to Chile? In which continent is Chile situated?
2. Mention any two indicators which showed that after military coup of 11 September, 1976, Chile became a non-democratic country.
3. Why did the Lenin Shipyard workers in Gdansk go on strike?
4. What reasons would you give to say that Solidarity was very popular in 1990?
5. Name any four countries where universal adult franchise was granted after 1950.
6. Mention three events which contributed to the establishment of democracy in the world.
7. Why is it necessary for people to discuss politics without fear?
8. Who acquired power in Pakistan after the Military coup in October 1999?
9. What do you mean by a nominal democracy?
10. What is veto power? Do you think it promotes world democracy?

Short answer type question:

11. "in Pakistan people elect their representatives to the national and provincial assemblies but still it cannot be called a democratic country." Give reasons.
12. "Since its independence in 1930, Mexico holds elections after every six years to elect its president. the country has never been under a military or dictator's rule. But still it cannot be called democratic country". Give reasons.
13. Explain the major features of democracy.
14. 'Democracy improves the quality of decision making'. Explain

15. 'Democracy provides a method to deal with differences and conflicts. Explain
16. 'Democracy is better than other forms of government because it allows us to correct its own mistakes' Explain
17. 'Democracy enhances the dignity of citizen's. Explain

Long answer type question:

18. Why Zimbabwe cannot called a democratic country? Give reasons.
19. Explain the major features of 'Democracy.
20. Can we China a democratic country?
21. 'Democracy provides a method to deal with differences and conflicts '.Explain.
22. Explain the major arguments against democracy.
23. Why do we prefer 'Democracy than any other form of the government?
24. Explain the major features of 'Democratic government.
25. What role do the citizens play in a 'democracy?
26. Why 'Democracy is called a government by discussion and persuasion?
27. Distinguish between a nominal 'democracy and an ideal 'democracy.

ANSWER KEY

(Objective DPP 2.1)

| Que. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| Ans | A | D | C | C | B | C | D | A | C | C | D | D | B | C | C |



CONSTITUTIONAL DESIGN



SL - 03 (C)

DEMOCRATIC CONSTITUTION IN SOUTH AFRICA

(a) Struggle against Apartheid :

Apartheid referred to the policy of discrimination on the basis of race as practiced by the government of South Africa. The main features of this policy were as follows:

All people were classified and separated on the basis of race.

Each group had to live in a separate area.

There were separate schools and universities, separate shopping centers, separate coaches in trains. Marriage between persons belonging to two races was a criminal offence. There were restriction on movement from one place to another. Non-whites had no votes. They had no say in the governance of the country. In short, the policy of apartheid human denied human rights and rendered the government of South Africa as among the most oppressive regimes in the world in the 20th century.

(b) The end of the Policy of Apartheid:

In 1910 the African National Congress was formed which aimed at establishing a non-racial democratic South Africa. The movement was intensified in the 1950s. In 1960s, the African National Congress was banned. The African National Congress organized its own army to fight against the racial regime. The UN condemned the policy of South Africa. In the 1980s some western countries imposed sanctions against South Africa. By the end of the 1980s the international isolation of the government of South Africa was complete. With it began the process of ending the apartheid. The ban on the African National Congress was lifted and its leaders released. Negotiations began between the African National Congress and South Africa government for framing a new constitution which would give all South Africans the right to vote. In April 1994, elections were held in South Africa as per the new provisions. The African National Congress won with a thumping majority and formed a non-racial democratic government. Finally, at the midnight of 26 April 1994, the new national flag of the Republic of South Africa was unfurled making the newly born democracy in the world.

(c) Towards a new Constitution:

The party that had ruled through oppression and brutal killings and the party that led the freedom struggle sat together to draw up a common constitution. One of the finest constitutions the world has ever had. It gave to its citizens the most extensive rights available in any country. The Constitution makes it clear that in the search for a solution to the problems, nobody should be excluded, no one should be treated as a demon, everybody should become part of the solution, whatever they might have done or represented in the past. The South African constitution inspires democrats all over the world. A state denounced by the entire world till recently as the most undemocratic one is now seen as a model of democracy.

(d) Nelson Mandela- Gandhi of South Africa:

Nelson Mandela was one of the most able, efficient and far-sighted leaders of the African national Congress. It was under his leadership that the struggle against apartheid reached its climax. Due to participation in the movement against apartheid he was sentenced to life imprisonment in 1964. He spent the next 28 years in prison. In the 90s due to activities of the African National Congress and the support it got from other countries of the world, South African regime was completely isolated from the world. In order to create a favorable atmosphere Nelson Mandela was released in 1990. In 1994 the first democratic elections were held and Nelson Mandela was elected the President of South Africa.

WHY DO WE NEED A CONSTITUTION ?

A Constitution of a country is a set of written rules that are accepted by all people living together in a country. Constitution is the supreme law that determines the relationship among people living in a territory (called citizens) and also the relationship between the people and government. a constitution does many things :

- (i) First, it generates a degree of trust and coordination that is necessary for different kind of people to live together;
- (ii) Second, it specifies how the government will be constituted, who will have power to take which decisions;
- (iii) Third, it lays down limits on the powers of the government and tells us what the rights of the citizens are;
- (iv) Fourth, it expresses the aspirations of the people about creating a good society.

All countries that have constitutions are not necessarily democratic. But all countries that are democratic will have constitutions. After the War of independence against Great Britain, the Americans gave themselves a constitution. after the Revolution, the French people approved a democratic constitution. Since then it has become a practice in all democracies to have a written constitution.

MAKING OF INDIAN CONSTITUTION

The making of the constitution for a huge and diverse country like India was not an easy affair.

- (i) The people of India were emerging from the status of subjects to that of citizens.
- (ii) The country was born through a partition on the basis of religious differences. Atleast ten lakh people were killed on both sides of the border in partition related violence.
- (iii) The British had left it to the rulers of the princely states to decide whether they wanted to merge with Indian or with Pakistan or remain independent. The merger of these princely states was difficult and uncertain task.
- (iv) When the constitution was being written, the makers of the constitution had anxieties about the present and the future of the country.

(a) The path to constitution:

- (i) Our national movement was not merely a struggle against a foreign rule. It was also a struggle to rejuvenate our country and to transform our society and politics.
- (ii) The familiarity with political institutions of colonial rule also helped develop an agreement over the institutional design. the experience gained by Indians in the working of the legislative institutions proved to be very useful for the country in setting up its own institutions.
- (iii) Many of our leaders were inspired by the ideals of French Revolutions, the practice of Parliamentary democracy in Britain and Bill of Rights in USA. So they incorporated some good points of the Constitution of these in the Indian Constitution.
- (iv) They also got inspiration from the Constitution drafted by Moti Lal Nehru and eight other Congress leaders in 1928, and the outlines of the Indian Constitution prepared by the Indian National Congress at its Karachi session in 1931.

(b) The Constituent Assembly:

The Constitution of India was framed by a Constituent Assembly set up under the Cabinet Mission Plan, 1946. The assembly consisted of 389 members representing provinces (292), states (93), the chief commissioner provinces (3) and Baluchistan (1). The assembly held its first meeting on December 6, 1946. It elected Dr. Rajendra Prasad as its Chairman. Soon after the country was divided into India and Pakistan. The Constituent Assembly was also divided into the Constituent Assembly of India and that of Pakistan. The Constituent Assembly that wrote the India Constitution had 299 members. The Assembly adopted the Constitution on 26 November 1949 but it came into effect on January 26, 1950. to mark this day we celebrate January 26 as Republic Day every year.

(c) Why should we accept the Constitution made by the Constituent Assembly more than 50 years ago?

- (i) The Constitution does not reflect the views of its members alone. It expresses a broad consensus of its time. Many countries of the world have had to rewrite their constitution afresh because the basic rules were not accepted to all major social groups or political parties. In some other countries, the Constitution exists as a mere piece of paper. No one actually follows it. The experience of our constitution is different. Over the last half a century, several groups have questioned some provisions of the Constitution. But no large social group or political party has ever questioned the legitimacy of the Constitution itself. This is an unusual achievement for any constitution.
- (ii) The Constituent Assembly represented the people of India. There was no universal adult franchise at that time. So the Constituent assembly could not have been chosen directly by all the people of India. It was elected mainly by the members of the existing Provincial Legislatures. This ensured a fair geographical share of members from all the regions of the country. The Assembly represented members from different language groups, castes, classes, religions and occupations.
- (iii) The manner in which the Constituent Assembly worked gives sanctity to the Constitution. The Constituent Assembly worked in a systematic, open and consensual manner. First some basic principles were decided and agreed upon. Then a Drafting Committee chaired by Dr. B.R. Ambedkar prepared a draft constitution for discussion. Several rounds of thorough discussion took place on the Draft Constitution, clause by clause. More than two thousand amendments were considered. Every document presented and every word spoken in the Constituent assembly has been recorded and preserved. These are called 'Constituent Assembly Debats'. When printed, these debates are 12 bulky volumes! These debates provide the rationale behind every provision of the Constitution. These are used to interpret the meaning of the Constitution.

(d) Indian Constitution: A Living Document:

Those who crafted the Indian Constitution felt that it has to be in accordance with people's aspirations and changes in society. They did not see it as a sacred, static and unalterable law. So, they made provisions to incorporate changes from time to time. These changes are called constitutional amendments. Till date 104 amendments have been made in the constitution. The amendment procedure provided in the constitution is as follows. There are three categories of amendments:

- (i) In the first category, amendments can be done by simple majority of members present and voting before sending it for the President's assent.
- (ii) In the second category, amendments require a special majority. Such an amendment can be passed by each house of Parliament by the two-thirds majority of the members of the house present and voting and then sent to the President for his assent.
- (iii) The third category, amendments is really difficult to pass. Besides the special majority mentioned in the second category, the same has to be approved by at least 50 percent of the state legislatures.

EXERCISE

OBJECTIVE DPP - 3.1

1. Nelson Mandela and seven other leaders were sentenced to life imprisonment in ----- for daring to oppose the apartheid regime in his country.
(A) 1864 (B) 1964 (C) 1924 (D) 1964
2. Apartheid was the name of a system of ----- unique to South Africa.
(A) Economic discrimination (B) Social discrimination
(C) Racial discrimination (D) Political discrimination
3. Which Organisation played the role of the umbrella Organisation that led the struggle against the policies of segregation in S. Africa ?
(A) Indian National Congress (B) United National Organisation
(C) Africa National Congress (D) None of the above