1 Field Visit

Points to Remember:

- An important study method in Geography **Field visit**
- Geographical concepts can be directly experienced through **Field visit**
- Material to be carried during a field **Notebook, Pen, Pencil, Scale, tape, compass, binoculars, bag, first aid kit, camera, specimen, questionnaire etc.**
- Field visit helps us to get information of a place through **Observation**
- The information collected during field visit is compiled together a **Field report**
- Traditional houses built by a specific method using mud and wood **Dhabyaach Ghare**
- A large reservoir of fresh water **Lakes**
- A barrier constructed to hold back water and raise its level, forming a reservoir **Dam**
- Meaning of words Vanrai and Devrai **Woodlands and Sacred groves,**
- A dense well-managed plantation generally on the outskirts of village **Devrai**
- The alternate rising and falling of the sea usually twice in each lunar day at a particular place, due to attraction of moon and sun **Tides**
- The application of controlled amounts of water to plants at needed intervals **Irrigation**
- The plantation of trees to increase rainfall specially in mountainous regions **Vanrai**
- Exploration of relationships and connections between **Geographical Concept** people and both natural and cultural environment

MASTER KEY QUESTION SET – 1

Q.1.

(1) What was the intention behind arranging a field visit?

Ans. The main intention of arranging a field visit was to experience the changes occuring in the soil, vegetation and human settlements as we travel.

(2) What are multi purpose projects?

Ans.

(i) Projects which serve more than one purpose are called as Multipurpose projects.

(ii) Multi Purpose projects are planned for various purpose like irrigation and hydro power generation, water supply for drinking and industrial purpose, flood control, navigation etc.

Q.2. (A) Statistical data:

	Sahyadri Devrai Locations	
(1)	Village	Wagholi
	Taluka	Chalisgaon
	District	Jalgaon
	Number of trees planted	18,000
(2)	Village	Mhaskewadi
	Taluka	Parner
	District	Ahmednagar
	Number of trees planted	10,000
(3)	Village	Ekburji Waghalgaon
	Taluka	Gangapur
	District	Aurangabad
	Number of trees planted	20,000

(4)

Village	Diwadi
Taluka	Maan
District	Satara
Number of trees planted	15,000

Q.2. (B) With the help of given statistical data, answer the following questions:

(1) What is the information about?

Ans. The information shows the statistical data of the plantation in villages, i.e. – Devrai

(2) Names the villages mentioned.

Ans. The villages mentioned are Wagholi, Mhaskewadi, Ekburji, Waghalgaon and Diwadi

(3) Which district has planted maximum number of trees?

Ans. Ekburji, Waghalgaon village in Aurangabad district has planted the maximum number of trees.

Q.3. Explain the following terms:

(1) Devrai

Ans.

(i) Devrai is a dense but well managed plantation, generally on the outskirts of villages.

(ii) Devrai is a pretty old concept and references can be found in old literatures.

(iii) The famous Devrai of Maharashtra is Sahyadri Devrai.

(2) Tides

Ans. The alternate rising and falling of the sea, usually twice in each lunar day at a particular place, due to the attraction of the moon and sun are called tides.

(3) Irrigation

Ans.

(i) The application of controlled amounts of water to plants at needed intervals is called as irrigation

(ii) Irrigation helps grow agricultural crops, maintain landscapes and revegetate disturbed soils in dry areas and during periods of less than average rainfall.

(4) Geographical Concept

Ans.

(i) It helps the exploration of relationships and connections between people and both natural and cultural environment.

(ii) It provides a frame work that geographers use to interpret and represent information.

(5) Vanrais

Ans.

(i) Van - means forest.

(ii) The plantation of trees to increase rainfall specially in mountainous regions is called a Vanrai.

Q.3. Give Reasons:

***(1) Pulses grow well in places where there is less rainfall.** *(Textbook Page No. 2)*

Ans.

(i) Extreme weather events during growing and harvesting seasons can cause serious damage to crops.

(ii) Pulses are very sensitive to torrential rain, especially in the early vegetative stage and flowering.

(iii) A high quantity of rainfall can cause disease infestation in crops.

Hence, pulses are grown in places where there is less to moderate rainfall.

***(2) The regions and necessities influence the difference in the means of livelihood.** *(Textbook Page No. 6)*

Ans.

(i) A person's livelihood refers to their "means of securing the basic necessities-food, water, shelter and clothing - of life."

(ii) To acquire above necessities, people work either individually or as a group by using skills (both human and material) for meeting the requirements of the self. The activities are usually carried out repeatedly. For instance, a fisherman's livelihood depends on the availability and accessibility of fish.

(iii) So, definitely the regions and necessities influence the difference in the means of livelihood.

Q.4. Answer in Detail:

***(1) Make a report on your field visit.**

Ans. [Students to use the following points for Report making]

(i) Introduction

(i) Location and Route map

(iii) Natural features

(iv) Climate

(v) Plant and Animal Life

(vi) Human Settlements

(vii) Occupations

(viii) Land use and Type of crops

(ix) Important Historical places

(x) Environmental problems

***(2) Prepare a questionnaire for a field visit to a factory.** *(Textbook Page No. 8)*

Ans. A questionnaire for a field visit to a factory will be as follows :

(i) Which product is manufactured in the factory?
(ii) What are the raw materials used to make the final goods ?
(iii) Where do the raw materials come from?
(iv) In which market is the final product sold ?
(v) How many people are employed in the factory ?
(vi) Do you have shifts for your employees ? What are their timings ?
(vii) What safety measures do you adopt for your staff ?
(viii) What precautions have been taken to prevent a fire hazard ?
(ix) What precautions have been taken to prevent or reduce environmental pollution ?

***(3) How will you manage the litter during the field visit?**

Ans.

(i) It is our special responsibility to ensure that the cleanliness and sanctity, of the place of visit is maintained during the visit.
(ii) During field visit, we must ensure that we do not throw any trash or litter around us.
(iii) We must use the dustbins for throwing empty packets of snacks, empty water bottles, left-over food items etc.
(iv) Also one must try to keep surrounding clean by segregation of wet and dry waste.
(v) We can also avoid usage of plastic bags and instead can make use of jute or cloth bags.

***(4) What items will you take with you for the field visit?**

Ans. If I were to do a field visit. I would have carried the following things.

(i) Notebook
(ii) Pen
(iii) Pensil
(iv) Ziplock bags to collect samples
(v) Camera
(vi) Binaculars
(vii) Magnetic compass
(viii) Map of the place
(ix) First aid kit
(x) Information booklet about the place to be visited
(xi) GPS enabled mobile phone
(xii) Cap
(xiii) Water bottle, etc.

***(5) Outline the importance of field visit.**

Ans.

(i) Geography is a science to be learnt through observation.
(ii) Field study gives us an opportunity to get firsthand information of the place of visit.
(iii) Students learn the relationship between physical and cultural factors and how man adapts himself accordingly.
(iv) They also learn to compare the areas and their activities.
(v) They develop the skill of observation and reasoning.
(vi) They get an opportunity to interact with the local people and understand their problems.
(vii) Students develop the feeling of belonging to these regions.

DISCUSS *(Textbook Page No. 1)*

If you were a part of field visit, what preparations would you make ? OR

Suppose teachers ask you to plan the visit. How will you plan the details of the trip?

Ans. One needs to understand the current climatic conditions, it is especially important to plan carefully for all contingencies.

(i) Decide where you are going and why.
(ii) Search on the internet for details as to how to reach, time required etc. Gather all the information as to what can be seen.
(iii) Ask Your administrator about the budget.
(iv) Arrange for transportation.
(v) Decide on a food plan.
(vi) Plan the day's schedule.
(vii) Take necessary permissions in case of visit to a factory or dam.
(viii) Make a list of items required. e.g. Water bottle, book, pen, binoculars, compass, map, camera, cap etc.

ACTIVITY

(Textbook Page No. 2)

(a) What precautions will you take continuously during the field visit?

Ans. Few of the precautions/points to be taken continuously during the field visit are

(i) Not down information gathered immediately in the book.
(ii) Preserve the book and samples collected carefully.
(iii) Take photographs of sites/people wherever necessary during the field visit.

(iv) Safeguard the natural surroundings and the historical monuments during the visit.

(v) Ensure that the students are engaged so as to prevent any mishaps.

(b) Collect more information about mud and wood houses. (Dhabyachee ghare)

Ans.

(i) Dhabyachee ghare or mud and wood houses are made of earth mixed with water and organic materials such as straw or dung. The roof is made up of wood.

(ii) Straw is useful in binding the brick together and allowing the brick to dry evenly, thereby preventing cracking due to uneven shrinkage through the brick. Dung offers the same advantage.

(iii) These houses are built in the low rainfall areas of Maharashtra e.g. Vidarbha, Marathwada.

(c) Correlate pulse cropping with low rainfall.

Ans.

(i) Pulses like tur, udad, chawli, gram etc are grown in the low rainfall areas of Maharashtra.

(ii) Pulses use less water than other crops.

(iii) They increase soil health as the rhizobium bacteria found in its roots help in nitrogen fixation thus increasing soil fertility.

(iv) Pulses also take lesser time to grow as compared to the other crops.

Thus pulses and low rainfall are directly related with each other.

(Textbook Page No. 3)

(a) Obtain information regarding multi-purpose projects.

Ans.

Today, dams are built not just for irrigation but for electricity generation, water supply for domestic and industrial uses, flood control, recreation, inland navigation and fish breeding.

Hence dams are referred to multipurpose projects where many uses of the collected water are done. For e.g., Bhakra Nangal Multipurpose project on River Satluj Jayakwadi Multipurpose project on River Godavari etc.

(b) 'Vegetation is an indicator of difference in precipitation'. What are the other indicators of difference in precipitation?

Ans.

(i) Crops grown in a particular region can be one of the indicators of precipitation.

(ii) Rising temperature, increasing droughts, the amount of water in lakes, rivers and streams indicate the difference in precipitation.

(iii) Texture and colour of the soil, humidity in the air etc. are indicators of precipitation.

(iv) As temperatures rise, more people will need to keep cool by using air conditioning, which uses a lot of electricity. So, consumption of energy is another indicator of precipitation.

(v) Animal life can also be affected. If the climate is not suitable -too wet, too dry, or too cold in winter, - (plants and the animals that depend upon them for food or habitat) will struggle or die.

(Textbook Page No. 4)

(a) How will the terrain below appear to the birds in the sky?

Ans.

The birds flying in the sky will be able to see almost the whole land in a single view. They will also see the uneveness of the land. To them every object will look very small in size.

(b) Out of which process has the plateau of Maharashtra formed? What is the main type of rock seen here?

Ans.

(i) The Deccan plateau was formed due to the volcanic eruptions.

(ii) The Deccan Plateau is made up of basalt extending up to Bhor Ghats near Karjat. This is an extrusive igneous rock. Also in certain sections of the region, we can find granite, which is an intrusive igneous rock.

Gather information about forts. Consider the following points for it. *(Textbook Page No. 5)*
Determination of location, period of construction, construction style and security mechanism.

Ans.

Sr. No	Name of Fort	Determination of location	Period of construction	Construction style and security
1.	**Jala-durga (Water fort)**	*Antardvipa-durga* (island fortress): surrounded by natural (sea or river) water bodies. E.g. Murud-Janjira.	**12th to 16th century**	Since these forts are surrounded by water it can not be easily invaded
		Sthaladurga (plain fortress): surrounded by artificial moats or irrigated by a river	**Late Medieval period**	
2.	**Dhanvana or Maru-durga (Desert Fort)**	Surrounded by an arid area of at least *5 yojanas (area span of 73 km)*	**1156 AD**	These forts have thicker outer boundaries as compared to other forts
3.	**Giri-durga (Hill fort)**	(I) Located on a flat hill summit. E.g. forts such as Chittor, Gwalior and Ranthambore.	**Medieval Period**	These forts are located on a hilly terrain surrounded by valleys.
		Giri-parshva-durga: The fortifications and civilian structures extend down to the hill slope (not just the summit).		
		Guha-durga: Located in a valley surrounded by hills, where the outposts and the signal towers are located.		
4.	**Vanadurga (Forest fort)**	Surrounded by a dense forest over a distance of at least 4 kroshas (14.6 km).	**11th Century**	These forts are located in dense forest.
		Khanjana-durga, built on a fen surrounded by thorny forests.		
		Sthambha-durga, built in the forest among tall trees; lacks sufficient water sources.		
5.	**Mahidurga (Earthen fort)**	*Mrid-durga:* surrounded by earthen walls.	**17th to 19th Century**	These forts were erected at the junction or on the bank of rivers. Canals, large tanks (dighis), moats (nalas) and ditches were provided to strengthen the defence system in keeping with the physiography and topography of the land.

		Parigha-durga: Surrounded by earthen walls, as well as stone or brick walls. The walls are atleast 5.4 m high and their width is half of their height.		
		Panka-durga: Surrounded by fens or quicksand		
6.	**Nridurga (Human fort)**	Defended by a large number of loyal and experienced warriors. Usually a city fortress, populated by a substantial garrison.	**16th Century**	Defended by a large number of loyal and experienced warriors.

(Textbook Page No. 6)

(a) Do you agree that regions and necessities influence the difference in the means of livelihood?

Ans. Yes, I agree that means of livelihood is influenced by the regions and necessities

(i) Differences in the regions develop due to difference in quality of land, climate, soil, animals and usage of technology.

(ii) Primary, Secondary and Tertiary occupation develop due to these differences.

Thus region and necessities influence the difference in the means of livelihood

(b) Guess which season of the year is the field visit being undertaken?

Ans. The following points tell us that the field visit had been undertaken in the rainy season.

(i) Paddy fields were visible.

(ii) The waterfalls in the Sahyadris.

(Textbook Page No. 7)

(a) What is the concept of Devrai?

Ans. Nature worship is an age old tribal belief.

(i) It is based on the understanding that all creations of nature have to be protected. Such beliefs have preserved several virgin forests in pristine form called Devrai or Sacred Groves.

(ii) These patches of forests or parts of large forests have been left untouched by the local people and any interference with them is banned.

(b) What precautions have to be taken while going to the sea coast? *(Textbook Page No. 7)*

Ans. The following precautions must be taken while going to the sea coast:

(i) Sun exposure at the sea is quite high. So, bring sunglasses and a hat to beat the sun's rays as it can cause sunburn.

(ii) Do not wear expensive watches and jewellery when going to the sea coast.

(iii) If you want to avoid traveller's diarrhoea then avoid sea food if you think it's not hygienically prepared.

(iv) Do not drink tap water and drinks with ice. Use only bottled water.

(v) Avoid foods and beverages from street vendors.

(vi) Do not eat undercooked food or meat or fish. Moreover, avoid food that is left at room temperature.

(c) What is the simplest method of understanding the timings of tides? *(Textbook Page No. 7)*

Ans.

(i) Tides are defined as the rise and fall of sea levels, caused by the combined effects of gravitational forces of the Moon, the Sun and the rotation of Earth.

(ii) The difference between the high and low tides determines the "tidal range", the depth of water in any one spot throughout the day.

(iii) This tidal range typically changes twice daily, since the lunar high tides occur every 12 hours and 25 minutes, which means that it takes six hours and 12.5 minutes to go from high tide to low tide or vice versa.

(Textbook Page No. 8)

(a) What type of photographs will you click with respect to the field visit?

Ans. If the purpose of the filed visit is to study relief, vegetation and human settlements etc of a particular place.

(b) On the basis of which points will you write the tour report? *(Textbook Page No. 8)*

Ans. The report is written on the basis of following points:

Place of visit, Time of visit, Objective of visit, Observations, Note taking, Photography, Conclusions.

ASSIGNMENT - 1

Time : 1 Hr. **Marks : 10**

Q.1. Explain the following terms: **(4)**

(1) Devrai (2) Vanrais

Q.2. Give Reasons: **(4)**

(1) Pulses grow well in places where there is less rainfall.

Q.3. Answer in Detail: **(2)**

(1) Outline the importance of field visit.

❖❖❖

2 Location and Extent

Points to Remember:

• The second largest populated country in the world	**India**
• India is known for its	**Spices**
• This country known as the 'coffee pot' of the world	**Brazil**
• The samba dance is a distinct feature of this country	**Brazil**
• Capital of India	**New Delhi**
• Capital of Brazil	**Brasilia**
• The southern most tip of India is called as	**Indira Point**
• Indira point is located on	**6°45'N Parallel**
• Number of States in India are	**29**
• India got independence from British rule	**15th August 1947**
• Brazil got independence from Portuguese rule	**7th September 1822**
• The type of government in India and Brazil is	**Republic**
• India is located in	**Northern and Eastern hemisphere**
• In the continent of Asia, India is located in	**Southern part**
• Most of Brazil is located in	**Southern Hemisphere**
• In context of the Prime Meridian, Brazil is located in the	**Western hemisphere**
• In the continent of South America, Brazil is located in the	**Northern part**
• Important latitude passing through the middle of India	**Tropic of Cancer**

MASTER KEY QUESTION SET – 2

Q.1. Choose the correct option and rewrite the statements:

(1) The second largest populated country in the world is ..... .
(a) China (b) Brazil
(c) India (d) Russia

(2) Brazil is famous for ..... type of dance form.
(a) Salsa (b) Samba
(c) Ballet (d) Tango

(3) The Country known as the 'Coffee pot' of the world is ..... .
(a) Brazil (b) India
(c) China (d) Pakistan

(4) India is located in the ..... part of the Asian continent.
(a) southern (b) northern
(c) northeastern (d) western

(5) Brazil gained independence in ..... .
(a) 1890 (b) 1980
(c) 1822 (d) 1820

(6) Capital of Brazil is ..... .
(a) Kabul (b) Kaula Lumpur
(c) Brasilia (d) Monaco

(7) Capital of India is ..... .
(a) Patna (b) New Delhi
(c) Dispur (d) Chandigarh

(8) India was under ..... rule for almost one and a half century.
(a) Portuguese (b) African
(c) Russian (d) British

(9) For more than a half century, Brazil was under a ..... government.
(a) Populist military
(b) Monarchy
(c) Constitutional government
(d) Dictatorial

(10) Most part of mainland Brazil lies in the ..... hemisphere.
(a) northern (b) southern
(c) eastern (d) northwestern

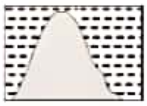
(11) Brazil was ruled by ..... imperial power which also ruled a part of India.
(a) Portuguese (b) British
(c) Indonesia (d) Pakistan

*(12) India's southernmost point is known as ..... .
(a) Lakshadweep (b) Kanyakumari
(c) Indira point (d) Port Blair

*(13) These two countries in South America do not share their borders with Brazil ..... .
(a) Chile-Ecuador
(b) Argentina Bolivia
(c) Columbia – French Guiana
(d) Surinam Uruguay

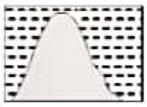
*(14) Both the countries have ..... type of government.
(a) Military (b) Republic
(c) Communist (d) Presidential

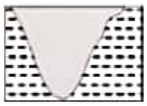
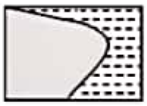
*(15) Which of the following shapes show the coastal part of Brazil correctly?

(a) (b) 

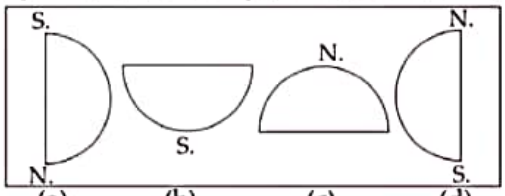
(c) (d)

*(16) Which of the following shapes show the coastal part of India Correctly?

(a) (b) 

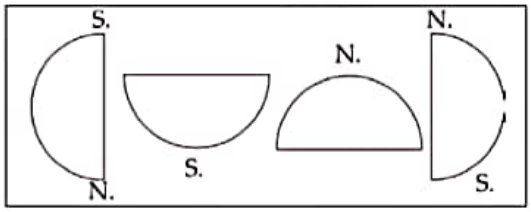
(c)  (d) 

*(17) Considering hemisphere, which shape correctly represents the hemisphere in which India lies?



(a) (b) (c) (d)

*(18) Considering the hemisphere, which correctly represents the hemisphere in which Brazil mainly lies?



(a) (b) (c) (d)

Ans. *(1) India (2) Samba (3) Brazil (4) southern (5) 1822 (6) Brasilia (7) New Delhi (8) British (9) Populist military (10) southern (11) Portuguese (12) Indira Point (13) Chile – Ecuador (14) Republic (15) (d) (16) (c) (17) (c) (18) (b).*

Q.2. Match the column:

(1)

Group A	Group B
(i) Dance form of Brazil	(a) Brazil
(ii) Capital of India	(b) Samba
(iii) Capital of Brazil	(c) New Delhi
(iv) Coffee pot of world	(d) Brasilia
	(e) Bangladesh
	(f) Myanmar

Ans. *(i - b), (ii - c), (iii - d), (iv - a)*

(2)

Group A	Group B
(i) Country to the south of Brazil	(a) China
(ii) Sea to the west of India	(b) Uruguay
(iii) Second largest populated country	(c) Arabian sea
(iv) Imperial power ruling Brazil	(d) India
	(e) Portuguese
	(f) Japan

Ans. *(i – b), (ii – c), (iii – d), (iv – e)*

Q.3. (A) Answer the following questions in one sentence:

(1) Which is the second largest populated country in the world?

Ans. The second largest populated country in the world is India.

(2) Which country is called the 'Coffee pot' of the world'?

Ans. Brazil is called the coffee pot of the world.

(3) Which dance form is famous in Brazil?

Ans. Samba is the famous dance of Brazil.

(4) What is the capital of India?

Ans. The Capital of India is New Delhi.

(5) When did India gain Independence?

Ans. India got independence on the 15th of August 1947.

(6) When did Brazil gain independence?

Ans. Brazil gained its independence on the 7th of September 1822.

(7) Which countries are located to the north of Brazil?

Ans. Venezuela, Guyana, Suriname and French Guiana are situated to the north of Brazil

(8) Which countries are located to the west of Brazil?

Ans. Colombia, Peru, Bolivia, Paraguay and Argentina are situated to the west of Brazil.

(9) Which countries are situated to the south of Brazil?

Ans. Uruguay is situated to the south of Brazil.

(10) Which ocean lies to the east of Brazil?

Ans. North and South Atlantic Ocean lies to the east of Brazil.

(11) Which countries are situated to the east of India?

Ans. Myanmar and Bangladesh are situated to the east of India.

(12) Which countries are situated to the north of India?

Ans. China, Bhutan and Nepal are situated to the north of India.

(13) Which sea lies to the west of India?

Ans. Arabian Sea lies to the west of India.

(14) Which countries lie to the south of India?

Ans. Srilanka, Maldives and Indonesia lie to the south of India.

(15) What is the location of southernmost tip of India?

Ans. The location of southernmost tip of India (Indira Point) is 6°45' N parallel.

(16) According to the equator, in which hemisphere is Brazil located?

Ans. Some part of Brazil lies in the northern hemisphere, while most of it lies in the southern hemisphere.

(17) In which hemispheres is India located?

Ans. India is located in the northern and eastern hemispheres.

(18) What type of government does Brazil have today?

Ans. Today, Brazil has Federal Presidential Republic type of government.

(19) What type of government does India have today?

Ans. Today, India has Federal Parliamentary Republic type of government.

(20) Where does the name Brazil come from?

Ans. The name Brazil comes from 'Pau Brasil', a local wooded tree.

Q.3. (B) Name the following:

(1) The second largest populated country in the world.

Ans. India

(2) The country famous for its spices in the world.

Ans. India

(3) The country known as the 'coffee pot' of the world.

Ans. Brazil

(4) Famous dance form of Brazil.

Ans. Samba

(5) Hemispheres in which India is located.

Ans. Northern and Eastern hemispheres.

(6) Continent in which India is located.

Ans. Asia

(7) What is the Latitude extent of India?

Ans. 8°4'N to 37°6'N

(8) What is the longitudinal extent of India?

Ans. 68°7'E to 97°25'E

(9) Under whose rule was Brazil for more than three centuries?

Ans. Portuguese.

(10) Independence day of Brazil.

Ans. 7th September 1822.

(11) Type of Government in Brazil from 1930 to 1985.

Ans. Populist Military Government.

(12) What is the latitudinal extent of Brazil?

Ans. 5°15'N to 33°45'S.

(13) What is the Longitudinal extent of Brazil?

Ans. 34°45'W to 73°48'W

Q.3. (C) Distinguish between:

***(1) Location of India and Brazil**

India	Brazil
(i) India is located at 8°4'N to 37°6'N latitude and between 68°7'E to 97°25'E longitudes.	(i) Brazil is located at 5°15'N to 33°45'S latitudes and between 34°45'W to 73°48'W.
(ii) It is located in the northern and eastern hemispheres.	(ii) Some part of Brazil lies in the northern hemisphere, while most of it lies in the southern hemisphere.
(iii) India is located in the southern part of the Asian continent.	(iii) Brazil is located in the northern part of South American continent.

Q.3. (D) Are the sentences right or wrong? Rewrite the wrong ones:

***(1) Brazil is mainly located in the Southern Hemisphere.**

Ans. Right

***(2) Tropic of Capricorn passes through the middle of India.**

Ans. Wrong. Tropic of Cancer passes through the middle of India.

***(3) Equator passes through the northern part of Brazil.**

Ans. Right

***(4) Brazil has a coastline along the Pacific Ocean.**

Ans. Wrong. Brazil has a coastline along the Atlantic ocean.

***(5) Pakistan is a neighbouring country to the southeast of India.**

Ans. Wrong. Pakistan is a country to the northwest of India.

***(6) The southern part of India is called Peninsula.**

Ans. Right

***(7) The Longitudinal extent of Brazil is less than India.**

Ans. Wrong. The Longitudinal extent of Brazil is more than India.

Q.4. Give geographical reasons:

(1) Brazil is called as the country having third longest land borders.

Ans.

(i) Brazil shares its boundaries with all South American countries, except Chile and Ecuador.

(ii) Brazil has borders with ten different countries, like Argentina, Bolivia, Colombia, French Guiana, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela, totalling 16,885 kilometres.

(iii) So, Brazil is called the country having third largest land borders.

(2) India is looked upon as a young country.

Ans.

(i) The proportion of youth in India's population is high.

(ii) This forms the major part of a working population.

(iii) According to 2011 census the percentage of working population is more than 50 %.

(iii) Hence, India is looked upon as a young country.

(3) India's Economic development has paced up.

Ans.

(i) Despite facing several problems after Independence, India is a major developing country of the world.

(ii) India is considered to be a global market too.

(iii) Because of various reforms from time to time, India's economic development has paced up.

Q.5. Answer in brief:

***(1) What problems did Brazil and India face after independence?**

Ans.

(i) India was under the British rule for almost one-and-a-half century. India got its independence in the year 1947.

(ii) It faced several problems like three wars, famine situations in various parts and similar issues after independence.

(iii) For more than three centuries, Brazil was under Portuguese rule. Brazil gained its independence in 1822.

(iv) From 1930 to 1985, for more than a half century, it was under a populist military government.

(v) It faced global financial difficulties in the late 20th century.

(vi) Thus, both India and Brazil faced many problems post-independence.

(vii) Inspite of these problems today, India is a major developing country of the world and is considered to be a global market.

(viii) Even Brazil is seen as a contributor to economic growth of the world and an important market in the future.

***(2) How are Brazil and India different from each other in terms of location?**

Ans.

(i) India is located in the northern and eastern hemispheres of the Earth.

(ii) It is located in the southern part of the Asian continent.

(iii) Some part of Brazil lies in the northern hemisphere, while most of it lies in the southern hemisphere.

(iv) Also, it lies in the western hemisphere. It is located in the northern part of the South American continent.

(3) Describe the latitudinal and longitudinal extent of India and Brazil.

Ans.

(i) The extent of the mainland India is 8°4'N to 37°6'N latitudes and between 68°7' E to 97°25'E longitudes.

(ii) Indira Point is the southernmost tip of India.

(iii) It is located on 6°45'N parallel.

(iv) The extent of the mainland Brazil is 5°15'N to 33°45' S latitudes and between to 34°45'W to 73°48'W longitude.

Make friends with maps! *(Textbook Page No. 12)*

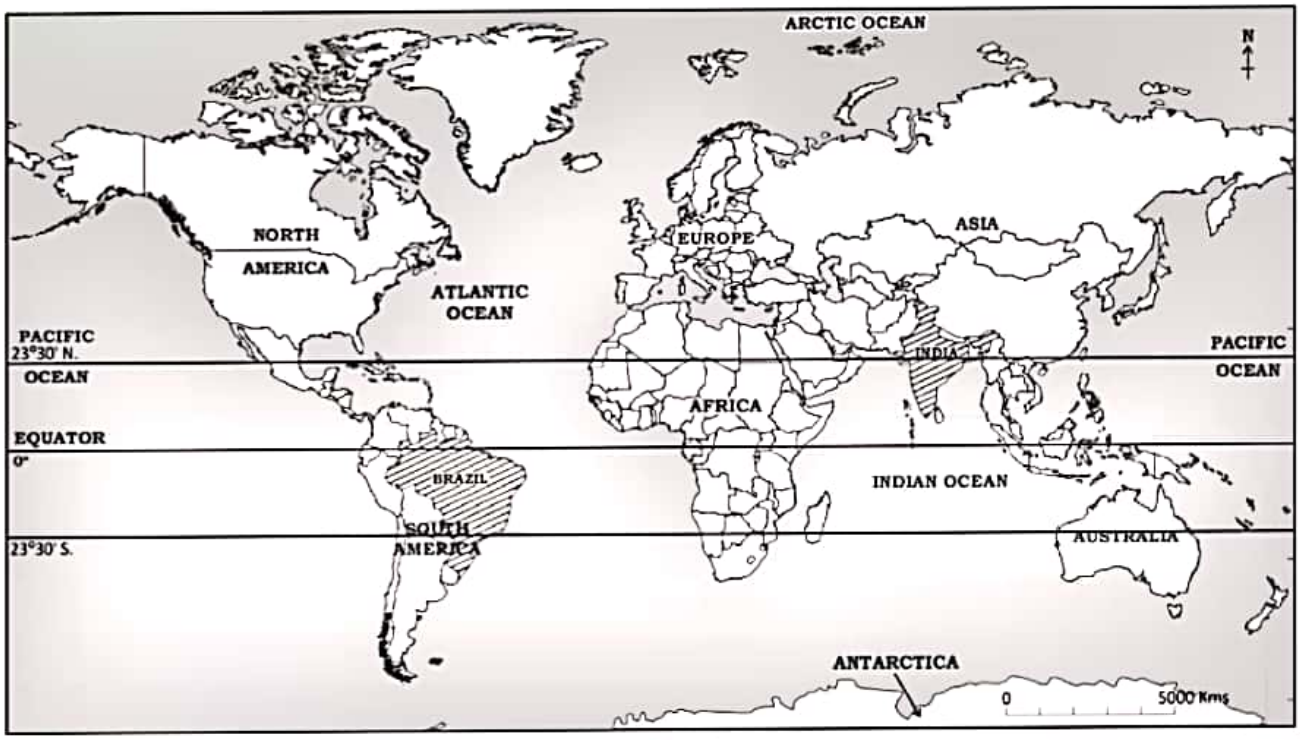
(1) Name all the continents and oceans of the world.

(2) Colour Brazil and India using different colours and name them.

(3) Draw equator on the map and write its value in degrees.

(4) Show the symbol for direction.

Ans.



Make friends with maps! *(Textbook Page No. 10)*

Observe the map and answer the following questions.

(Refer to Textbook Page No. 10, Fig 2.1)

Name the neighbouring countries / oceans situated.

- To the North
- To the South
- To the East
- To the West

Ans.

No.	Directions	Neighbouring Countries/ Oceans
(1)	North	China, Bhutan, Nepal
(2)	South	Indian Ocean, Sri Lanka, Maldives, Indonesia
(3)	East	Myanmar, Bangladesh, Bay of Bengal
(4)	West	Arabian Sea, Pakistan, Afghanistan

Make friends with maps! *(Textbook Page No. 11)*

Observe the map and answer the following question.

(Refer to Textbook Page No. 11, Fig 2.2)

Name the neighbouring countries / Oceans situated. (Map of Brazil)

- To the North
- To the South
- To the East
- To the West

Ans.

No.	Directions	Neighbouring Countries	Oceans
(1)	North	Venezuela, Guyana, Suriname, French Guiana	North Atlantic Ocean
(2)	South	Uruguay	South Atlantic Ocean
(3)	East		South Atlantic Ocean
(4)	West	Peru, Bolivia, Paraguay, Colombia, Argentina	

Colours of Both *(Textbook Page No. 12)*

Answer the following questions with respect to the countries that you have studied.

(Colours of Both Textbook Page No. 12)

(a) Out of the countries that you have coloured, which country is larger in size?

Ans. Brazil

(b) Which country has a larger latitudinal extent?

Ans. Brazil

(c) How do the locations of Brazil and India differ in terms of their positions in their respective continents?

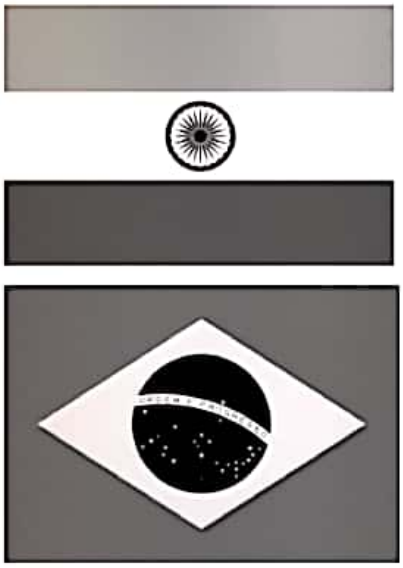
Ans. Brazil lies in the northern part of the continent of South America, whereas India lies in the Southern part of the continent of Asia.

(d) How many states does each of the two countries have?

Ans. Brazil has 26 states, whereas India has 29 states.

(e) Draw the flags of India and Brazil.

Ans.



(f) Obtain information regarding the emblems of both the countries.

Ans. **India:** The national emblem of India is an adaptation of the Lion capital of Ashoka at Sarnath. The emblem has three lions visible, the fourth being hidden from the view. The four lions symbolise power, courage, confidence and pride. At the bottom is a horse and a bull, and its centre is a wheel (Dharma Chakra). Forming an integral part of the emblem is the motto inscribed in Devangri Script: Satymeva Jayate (Truth Alone Triumphs)

Brazil: The national emblem of Brazil shows the Southern cross in a blue circle. The ring of 27 stars around it represents Brazil's 26 states and the Federal District. The whole is placed on a star and surrounded by coffee (at the left) and tobacco (at the right), which are the important crops in Brazil. The blue ribbon contains the official name of Brazil (Republica Federativa Do Brazil – Federative Republic of Brazil) in the first line. In the second, the date of the federative republic's establishment (November 15, 1889) is written.

Give it a try. *(Textbook Page No. 13)*

(a) Find the difference between postindependence characteristics of India and Brazil.

Ans.

Brazil	India
(i) Brazil gained its independence in 1822. From 1930 to 1985, for more than half a century, it was under a populist military government. Presently, Brazil has federal presidential republic type of government.	(i) India got its independence in the year 1947. It has federal parliamentary republic type of government.
(ii) The proportion of youth, i.e. working population in Brazil's population is low.	(ii) The proportion of older people that is non working population is high.
(iii) It has overcome global financial difficulties in the late 20th century.	(iii) India faced several problems like three wars, famine situations in various parts and similar issues after independence.
(iv) Sex ratio and literacy rate is high in brazil.	(iv) Sex ratio and literacy rate is low in India.

(b) The imperial power which ruled Brazil also ruled a part of India. Find out when that part of India achieved independence ?

Ans. In India, Goa, Diu and Daman, Dadra and Nagar Haveli were under Portuguese rule. These regions got independence on 19th December 1961.

ASSIGNMENT - 2

Time : 1 Hr. **Marks : 20**

Q.1. Fill in the blanks choosing the most appropriate alternative. **(2)**

(1) With a population of around 19 crores, according to census 2010, Brazil ranks ..... in the world.

(a) 3rd (b) 5th (c) 7th (d) 9th

(2) The interior of the Amazon basin is ..... populated.

(a) densely (b) moderately (c) highly (d) very sparsely

Q.2. Are the following sentences right or wrong? Correct the wrong ones. **(2)**

(1) The western part of Brazil is densely populated.

(2) Brazil is the second most populous country in the South American Continent

Q.3. Answer in one sentence. **(2)**

(1) What is sex ratio?

(2) What is a population pyramid?

Q.4. Answer the questions as per the instructions: **(2)**

(1) Arrange the following states of India in descending order of their population. Himachal Pradesh, Uttar Pradesh, Arunachal Pradesh, Madhya Pradesh, Andhra Pradesh.

Q.5. On outline map of India mark the following: **(2)**

(1) The westernmost state with a population density of 251 to 500 persons per sq.km.

(2) The southern states with a population density of more than 500 people per sq.km.

(3) The easternmost state with a population density of less than 100 persons per sq.km.

(4) The capital of India.

Q.6. Give geographical reasons: **(4)**

(1) Brazil's population density in very less.

(2) Population density is high in the Ganga plains.

Q.7 Give geographic al reasons: **(6)**

(1) Giving examples, correlate climate and population distribution

(2) What could be the reasons of lower sex ratio in any region?

❖ ❖ ❖

3 Physiography and Drainage

Points to Remember:

- Five major physiographic divisions of India — **The Himalayas, The North Indian Plains, The Peninsula Coastal Plains, Island Groups**
- The Himalayas — **One of the young fold mountains in the world**
- Extension of Himalayas — **(i) Pamir Knot in Tajikistan to the east (ii) Jammu and Kashmir to Arunachal Pradesh**
- Himalayan ranges from south to North **OR** Himalayan ranges from young to old — **Shiwaliks, Lesser Himalayas, Greater Himalayas and Trans Himalayas**
- From West to East Himalayas are divided into — **Western Himalayas (Kashmir Himalayas), Central Himalayas (Kumaun Himalayas), Eastern Himalayas (Assam Himalayas)**
- North Indian Plains — **lies between Himalayan mountains in the north and Peninsula in the South**
- Part of North Indian Plains lying to the east of Aravalis — **Ganga Plains**
- Delta of Ganga and Brahmaputra system is called — **Sunderbans**
- Western part of North Indian plains is called — **Thar Desert or Marusthali**
- Area lying to the south of North Indian Plains — **The Peninsula**
- Oldest fold mountains in India — **The Aravali**
- Length of the coastline of India — **approximately 7500 km**
- Eastern Coastal plains — **formed as a result of depositional work of rivers**
- Rivers originating from Western Ghats form — **estuaries and not deltas**
- Islands in Arabian sea are — **Lakshadweep islands**
- Islands in Bay of Bengal are — **Andaman and Nicobar islands**
- Only active volcano in India — **Barren Island**
- Physiographic divisions of Brazil — **The Highlands , The Great Escarpment, The Coastal region, The Plains, The Island region**
- Highest peak of Brazil — **Pico de Neblina. (3014 m)**
- Pico de Neblina lies on the border between — **Brazil and Venezuela**
- The eastern side of Brazilian Highland is demarcated by — **The Great Escarpment**
- The escarpment is very steep from — **Sao Paulo to Porto Alegre**
- The rainshadow area in the north eastern part of highlands is called as — **Drought Quadrilateral**
- The northern coast extends from — **Amapa to Rio Grande Do Norte**
- The plains of Brazil are confined to — **Amazon basin and Paraguay Parana source region**
- Most of the Amazon plains are covered by — **Tropical rain forests**
- One of the largest wetlands in the world are — **Pantanal**
- The marine islands are located at a distance of — **more than 300 km away from main land of Brazil**
- Length of coastline of Brazil — **Approximately 7400 km**

- Coral islands near the coast of South Atlantic ocean are in the form of **Atolls**
- Longest sandy beach in the world **Praia do Cassino or Casino Beach**
- Major river basins of Brazil are **Amazon Basin, Paraguay- Parana system, Sao-Francisco**
- Amazon collects its head waters from **Eastern slopes of Andes mountains in Peru**
- Discharge of Amazon **2 lakh m^3/s**
- Part of Brazil where Parana and Paraguay are located **South western part**
- Coastal rivers of Brazil **River Paraniba and River Itapecuru**
- Third important river of Brazil is **Sao Francisco**
- According to their source region, Rivers in India are classified as **Himalayan rivers and Peninsular rivers**
- Himalayan rivers are **Perennial in nature**
- Major tributaries of River Sindhu **River Jhelum, River Chenab, River Satluj, River Ravi**
- River Satluj originates near **lake Mansarovar**
- Origin of Ganga river **Gangotri Glacier**
- Major tributary of River Ganga **River Yamuna**
- River Yamuna originates from **Yamunotri Glacier**
- North of Great Himalayas, Brahmaputra is called as **River Tsang Po**
- In Arunachal Pradesh, Brahmaputra is called as **River Dihang**
- Peninsular rivers are divided as **East flowing (meeting Bay of Bengal), West Flowing (meeting Arabian sea)**
- Peninsula tributaries of river Ganga **River Chambal, Ken, Betawa, Shon, Damodar etc.**
- Major water divide in Peninsula **Western Ghats**
- Peninsular rivers are **seasonal in nature**
- Rivers draining in Gulf of Khambhat **River Tapi, Narmada, Mahi and Sabarmati**
- Second largest river system of India in terms of the catchment area **River Godavari**
- Major tributaries of River Krishna **River Bhima and Tungbhadra**
- Kaveri Basin flows through the state of **Karnataka and Tamil Nadu.**
- Backwaters of Kerala are called **Kayals**

MASTER KEY QUESTION SET – 3

Q.1. Complete the sentences by choosing the correct option:

*(1) Brazil is covered mainly by ..... .
(a) Highlands (b) Mountainous region
(c) Plains (d) Dissected hills

*(2) Like Brazil, India too has ..... .
(a) high mountains (b) west flowing rivers
(c) ancient plateau
(d) snow capped mountains

*(3) The Amazon Basin is mainly ..... .
(a) characterized by droughts
(b) filled by swamps
(c) covered by dense forests
(d) fertile

*(4) Amazon is a large river in the world. Near its mouth ..... .
(a) deltaic regions are found
(b) no deltas are found
(c) deposition of sediment occurs
(d) fishing is done

*(5) The Lakshadweep Islands of Arabian Sea are .....
(a) made from the part separated by mainland
(b) coral islands
(c) volcanic islands
(d) continental islands

*(6) To the foot hills of the Aravalis ..... .
(a) lies the Budelkhand plateau
(b) lies the Malwa plateau
(c) lies the Mewad plateau
(d) lies the Deccan plateau

(7) The part of North Indian Plains lying to the east of the Aravalis is called ..... .
(a) Ganga Plains (b) Brahmaputra Plains
(c) Kaveri Plains (d) Krishna Plains

(8) The delta of Ganga-Brahmaputra system is called the ..... .
(a) Sunderbans (b) Parnaiba
(c) Amazon (d) Marajo

(9) The western part of the North Indian Plains occupied by deserts is known as .....
(a) Thar desert or Marusthali
(b) Gobi Desert
(c) The Deccan Thorn scrub Desert
(d) Spiti Valley Cold desert

(10) The area lying to the south of North Indian plains and tapering towards Indian Ocean is called ..... .
(a) Himalayas (b) Peninsula
(c) Western Ghats (d) Indira point

(11) The ..... in the North of Peninsular India are the oldest fold mountain.
(a) The Aravalis
(b) The Satpudas
(c) The Karakoram range
(d) The Vindhya range

(12) The ..... rivers are seasonal in nature.
(a) Northern (b) Peninsular
(c) Himalayan (d) Mountainous

(13) River ..... is the second largest river system in India in terms of catchment area.
(a) Krishna (b) Godavari
(c) Brahmaputra (d) Ganga

(14) The major river ..... of peninsula flows through the states of Karnataka and Tamil Nadu.
(a) Kaveri (b) Sindhu
(c) Ganga (d) Brahmaputra

(15) India is blessed with a long coastline extending for approximately .....
(a) 8000 km (b) 5000 km
(c) 7500 km (d) 7900 km

(16) The islands in the Arabian sea are called as ..... islands.
(a) Andaman and Nicobar
(b) Barren
(c) Marajo
(d) Lakshadweep

(17) The Islands in the Bay of Bengal are called ..... islands.
(a) Andaman and Nicobar
(b) Maldives
(c) Corsela
(d) Lakshadweep

(18) The highest peak of Brazil is called as .....
(a) Pico de Neblina (b) Mount Everest
(c) Kanchenjunga (d) Mount Roraima

(19) The ..... acts as a barrier to the south east trade winds giving rise to the rain shadow area in the north eastern part of the highlands.
(a) Coastal Plains (b) Escarpment
(c) Plateaus (d) Pantanal wetlands

(20) Amazon collects its headwaters from the eastern slopes of Andes mountains in ..... .
(a) Uruguay (b) Peru
(c) Ecuador (d) Columbia

(21) The ..... Island is the only active volcano of India.
(a) Majuli (b) St. Mary's
(c) Barren (d) Lakshadweep

(22) ..... is a large coastal island located between the mouths of river Amazon and river Tocantins.
(a) Pantanal (b) Plata
(c) Paraniba (d) Marajo

(23) ..... is one of the largest wetlands in the world.
(a) Plata (b) Marajo
(c) Pantanal (d) Paraniba

(24) The Paraguay and the Parana rivers form the catchment of River ..... in Argentina.
(a) Paraniba (b) Plata
(c) Pantanal (d) Marajo

(25) River ..... enters the Atlantic Ocean near Salvador town.
(a) Marajo (b) Puraguaco
(c) Plata (d) Parana

(26) The river ..... flows through Pakistan and then meets the Arabian Sea.
(a) Ganga (b) Chambal
(c) Sindhu (d) Brahmaputra

(27) Ganga receives ..... as its tributary in its lower reaches in Bangladesh.
(a) Satluj (b) Sindhu
(c) Brahmaputra (d) Ravi

Ans. *(1) Highlands (2) Ancient plateau (3) covered by dense forest (4) no deltas are found (5) coral islands (6) lies the Mewad plateau (7) Ganga Plains (8) Sunderbans*

(9) Thar desert or Marusthali (10) Peninsula (11) The Aravalis (12) Peninsular (13)Godavari (14) Kaveri (15) 7500 km (16) Lakshadweep (17) Andaman and Nicobar (18) Pico de Neblina (19) Escarpment (20) Peru (21) Barren (22) Marajo (23) Pantanal (24) Plata (25) Puraguaco (26) Sindhu (27) Brahmaputra

Q.2. (A) Match the following:

(1)

Column 'A'	Column 'B'
1. Himalayas	(a) lies to the western and eastern part of Peninsula.
2. North India Plains	(b) consists of many plateaus and hill ranges
3. The Peninsula	(c) one of the young fold mountains in the world.
4. The Coastal Plains	(d) lies between Himalayan mountains in the north and the Peninsula in the south.
5. The Island group	(e) are located more than 300 km away from the mainland in the Atlantic ocean.
	(f) small and large islands along the coast of the mainland.

Ans. *(1 – c), (2 – d), (3 - b), (4 – a), (5 - f)*

(2)	Column 'A'		Column 'B'
(1)	Western Himalayas	(a)	Shiwaliks
(2)	Central Himalayas	(b)	Assam Himalayas
(3)	Eastern Himalayas	(c)	Kashmir Himalayas
		(d)	Kumaon Himalayas

Ans. *(1 – c), (2 – d), (3 – b)*

(3)	Column 'A'		Column 'B'
(1)	Longest river of India	(a)	Sao Francisco
(2)	Second largest river of India	(b)	Godavari
(3)	Longest river of Brazil	(c)	Ganga
		(d)	Brahmaputra
		(e)	Amazon

Ans. *(1 – c), (2 – b), (3 - e)*

Q.2. (B) Identify the correct group:

***(1) The order of the physiographic units in Brazil while going from North West to South East**

(i) Parana River basin -Guyana Highlands - Brazilian Highlands

(ii) Guyana Highlands - Amazon River basin - Brazilian Highlands

(iii) Coastal plains - Amazon River basin - Brazilian Highlands

Ans. Guyana Highlands - Amazon River basin - Brazilian Highlands

***(2) These Rivers of Brazil are north flowing -**

(i) Juruika - Xingu - Aragua

(ii) Negro - Branco - Paru

(iii) Japura - Jarua - Purus

Ans. Juruika - Xingu - Aragua

***(3) The order of plateaus of India from south to North.**

(i) Karnataka - Maharashtra - Bundelkhand

(ii) Chota Nagpur - Malwa - Marwad

(iii) Telangana - Maharashtra - Marwad

Ans. Karnataka - Maharashtra - Bundelkhand

(4) Parallel ranges of Himalayas from south to north

(i) Siwaliks - Lesser Himalayas - Greater Himalayas

(ii) Trans Himalayas - Kumaun - Shiwaliks

(iii) Kashmir Himalayas - Kumaun Himalayas - Assam Himalayas

Ans. Siwaliks - Lesser Himalayas - Greater Himalayas

(5) Physiographic division of India from north to south

(i) The Himalayas - The North Indian Plains - The Peninsula

(ii) The Peninsula - The Great Escarpment - The North Indian Plains

(iii) Coastal Plains - Islands - Himalayas

Ans. The Himalayas - The North Indian Plains - The Peninsula

(6) Physiographic divisions of Brazil

(i) The Himalayas - The North Indian Plain - The Peninsula

(ii) The Highlands - The Great Escarpment - The Plains

(iii) Islands - Peninsula - Coastal Plains

Ans. The Highlands - The Great Escarpment - The Plains

(7) Three major River Basins of Brazil

(i) The Ganga Basin - The Brahmaputra Basin - The Narmada Basin.

(ii) Paraguay Parana Basin - Amazon Basin - Sao Francisco

(iii) Godavari Basin - Krishna Basin - Kaveri Basin.

Ans. Paraguay Parana Basin - Amazon Basin - Sao Francisco

(8) The order of subdivisions of North Indian Plains from west to east

(i) Marusthali - Ganga Plains - Sunderbans

(ii) Pamir Knot - Punjab Plains - Marusthali

(iii) Sunderbans - Vindhyas - Western Ghats

Ans. Marusthali - Ganga Plains - Sunderbans

Q.2. (C) Name the following:

(1) Five major physiographic divisions of India.

Ans. The Himalayas, The North Indian Plains, The Peninsula, Coastal plains and Island groups

(2) West -East division of Himalayas.

Ans. Western Himalayas (Kashmir Himalayas), Central Himalayas (Kumaun Himalayas) and Eastern Himalayas (Assam Himalayas).

(3) Region constituting delta of Ganga Brahmaputra system or world's largest delta

Ans. Sunderbans

(4) Coast bordering Arabian sea

Ans. Western coast

(5) Coast bordering Bay of Bengal

Ans. Eastern coast

(6) Islands in the Arabian Sea.

Ans. Lakshadweep

(7) Islands in the Bay of Bengal

Ans. Andaman and Nicobar

(8) Other name of Thar Desert.

Ans. Marusthali

(9) Ranges in the central part of India.

Ans. Vindhyas and Satpuda.

(10) Physiographic divisions of Brazil.

Ans. The Highlands, The Great Escarpment, The Coastal region, The Plains, The Island groups

(11) Length of coastline of Brazil.

Ans. Approximately 7400 km

(12) Major river basins of Brazil.

Ans. Amazon Basin, Paraguya-Parana system, Sao Francisco.

(13) Two main Himalayan river basins of India.

Ans. Ganga river basin and Sindhu

(14) Origin of Ganga in Himalayas

Ans. Gangotri Glacier

(15) Major tributary of Ganga

Ans. Yamuna

(16) Tributaries of River Sindhu.

Ans. Rivers Jhelum, Chenab, Ravi, Beas and Satluj

(17) Origin of River Satluj.

Ans. Mansarovar

(18) Rivers flowing into the Gulf of Khambhat.

Ans. Rivers Tapi, Narmada, Mahi and Sabarmati

(19) River basin located to the south of River Godavari

Ans. Basin of River Krishna

(20) Plains formed due to depositional work of river Satluj.

Ans. Punjab Plains

(21) Tributaries of Peninsula joining the Ganga basin.

Ans. Rivers Chambal, Ken, Betwa, Son, Damodar

(22) States having short and swift river systems.

Ans. Kerala, Karnataka, Maharashtra, South Gujarat

(23) River originating from the eastern slopes of Western Ghats.

Ans. Rivers Godavari, Krishna, Kaveri

(24) Largest wetlands in the world.

Ans. Pantanal

(25) Highest peak of Brazil

Ans. Pico de Neblina

(26) Western border of Indian Peninsula.

Ans. Western Ghats

(27) Eastern border of Indian Peninsula.

Ans. Eastern Ghats

(28) Oldest fold mountains of India.

Ans. Aravalis

(29) Major mountain system of Asia.

Ans. Himalayas

Q.3. (A) Answer the following in one sentence:

(1) Which mountain is considered as one of the young fold mountains in the world?

Ans. The Himalayas are considered as one of the young fold mountains in the world

(2) What is the southernmost range of Himalayas called?

Ans. The southernmost range of Himalayas is called as the Siwaliks.

(3) Where are the North Indian Plains located?

Ans. The North Indian Plain lies between Himalayan Mountains in the north and the Peninsula in the south.

(4) Where are the Ganga Plains located?

Ans. The Ganga plains lie to east of the Aravalis in the North Indian Plain.

(5) What constitutes the delta of Ganga-Brahmaputra system?

Ans. Most of the West Bengal state of India and Bangladesh together constitute the delta of Ganga Brahmaputra system.

(6) What are Sunderbans?

Ans. The delta region of Ganga-Brahmaputra system is called as Sunderbans.

(7) What is the length of coastline of India?

Ans. The length of coastline of India is approximately 7500 km.

(8) Why do the rivers originating from Western Ghats form estuaries?

Ans. Rivers originating from Western Ghats are short and swift, hence they form estuaries.

(9) What are the islands located in the Arabian Sea called?

Ans. The islands located in the Arabian sea are called as Lakshadweep islands.

(10) What are the islands located in the Bay of Bengal called?

Ans. The islands located in Bay of Bengal are called as Andaman and Nicobar islands.

(11) Name the only active volcano in India.

Ans. The Barren island is the only active volcano in India located in Andaman and Nicobar islands.

(12) Which is the highest peak in Brazil?

Ans. The highest peak in Brazil is Pico de Neblina

(13) What acts as a barrier to the South East trade winds giving rise to rainshadow area in northeastern part of highlands in Brazil?

Ans. The escarpment acts a barrier to the South East Trade winds giving rise to rainshadow area in northeastern part of the highlands in Brazil.

(14) Which is the coastal island located between mouths of river Amazon and river Tocantins?

Ans. Marajo is a large coastal island located between mouths of River Amazon and river Tocantins.

(15) What are most of the Amazon Plains covered with?

Ans. Most of the Amazon Plains are covered by tropical rainforest.

(16) Where is Pantanal located?

Ans. Pantanal is located in the northwestern Mato Grosso Do Sul in Brazil and it extends into Argentina.

(17) What is a 'Drought Quadrilateral'?

Ans. The escarpment acts as a barrier to the SouthEast Trade winds giving rise to the rain-shadow area in the north-eastern part of the highlands. The region to the north of this area is called the 'Drought Quadrilateral.'

(18) What is the Brazilian coast characterized by?

Ans. The Brazilian coast is characterised by a large number of beaches and sand dune complexes.

(19) What protects the Brazilian coast?

Ans. The Brazilian coast is protected in some areas by coral reefs and atoll islands.

(20) What is Pantanal?

Ans. Pantanal is one of the largest wetlands in the world. It is a region of swamps and marshes in northwestern Mato Grosso Do Sul in Brazil.

(21) From where does Amazon collect its head waters?

Ans. Amazon collects its headwaters from the eastern slopes of Andes Mountains in Peru.

(22) Where does the river Sao Francisco flow?

Ans. The river flows towards the north for a distance of about 1000 km. over the Brazilian plateau and then takes a sharp eastward turn to enter the coastal strip along the Atlantic Ocean.

(23) Which rivers meet the North Atlantic Ocean?

Ans. River Paraniba and River Itapecuru meet the North Atlantic Ocean.

(24) Which two river systems are covered under the Himalayan Drainage System?

Ans. The Himalayan drainage system cover two major river systems such as the Sindhu river system and the Ganga river system.

(25) What are "Kayals"?

Ans. The coastal rivers in Kerala have long extending backwaters near their mouths, which are locally known as "Kayals."

(26) Name the three major river basins of Brazil.

Ans. The three major river basins of Brazil are Amazon Basin, Paraguay-Parana system in the southwest and Sao Francisco in the eastern part of highland.

(27) What is the approximate discharge of Amazon river?

Ans. The approximate discharge of Amazon river is about 2 lakh m^3/s.

(28) Where are the rivers Paraguay-Parana located?

Ans. The rivers Paraguay and Parana are located in the south-western part of Brazil.

(29) Which is the third important river of Brazil?

Ans. Sao Francisco is the third important river of Brazil.

(30) Name the two major classifications of rivers of India.

Ans. The rivers in India are classified into Himalayan and Peninsular rivers.

(31) Name the major tributary of river Ganga.

Ans. Yamuna, originating at Yamunotri is a major tributary of Ganga.

(32) From where do Himalayas extend?

Ans. The Himalayas extend from Pamir Knot in Tajikistan to the east.

(33) Which physical division lies between the Himalayas and the Peninsula?

Ans. The North Indian Plain lies between the Himalayas in the north and the Peninsula in the south.

(34) Which physical division form the core of South America continent?

Ans. The Brazilian and Guyana Highlands form the core of the South American continent.

(35) The Guyana highlands cover which states of Brazil?

Ans. The Guyana highlands cover the states of Roraima, Para and Amapa in Brazil.

(36) The eastern side of Brazilian highlands are demarcated because of which physical division?

Ans. The eastern side of Brazilian highlands are demarcated because of the Great Escarpment.

(37) Which is the largest plain land of Brazil?

Ans. The Amazon plains lying in the northern part is the largest plain land of Brazil.

Q.3. (B) Identify the type on the basis of the statement:

(1) A landform formed due to deposition of sediment carried by a river as the flow leaves its mouth and enters slower-moving or standing water.

Ans. Delta

(2) The area where land meets the sea or ocean, or a line that forms the boundary between the land and the ocean or a lake.

Ans. Coast

(3) Any area of land where precipitation collects and drains off into a common outlets, such as into a river, bay, or other body of water.

Ans. River Basin

(4) A piece of land surrounded by water on the majority of its border, while being connected to a mainland from which it extends.

Ans. The Peninsula

(5) A steep slope or long cliff that forms as an effect of faulting or erosion and separates two relatively leveled areas having differing elevations.

Ans. Escarpment

(6) Any piece of sub-continental land that is surrounded by water.

Ans. Island

Q.3. (C) Distinguish Between:

***(1) Eastern Ghats and Western Ghats.**

Ans.

Eastern Ghats	Western Ghats
(1) The Eastern Ghats run along the Eastern coast of India in the north east to south west direction.	(1) The Western Ghats also known as Sahyadri run in the north-south direction along the western coast of India.
(2) It forms the eastern boundary of the Deccan plateau.	(2) It forms the western boundary of Deccan Plateau.
(3) It is not continuous, but is broken at many places by rivers like Godavari and Krishna.	(3) The Western ghats is like a continuous wall like structure but is broken at places by passes.
(4) Comparatively less number of rivers originate from the Eastern Ghats.	(4) It is a source of many westward and eastward flowing rivers.
(5) The average altitude of the Eastern ghats is low (600 mts) but they are wider than Western Ghats.	(5) The average altitude of the Western ghats is high (900-1000 mts) but it is narrower in width than Eastern Ghats.
(6) Highest peak of Eastern Ghats is Mahendragiri (1690 m)	(6) Highest peak of Western Ghats is Anaimudi Peak (2695 m)

(2) Delta and Estuary

Ans.

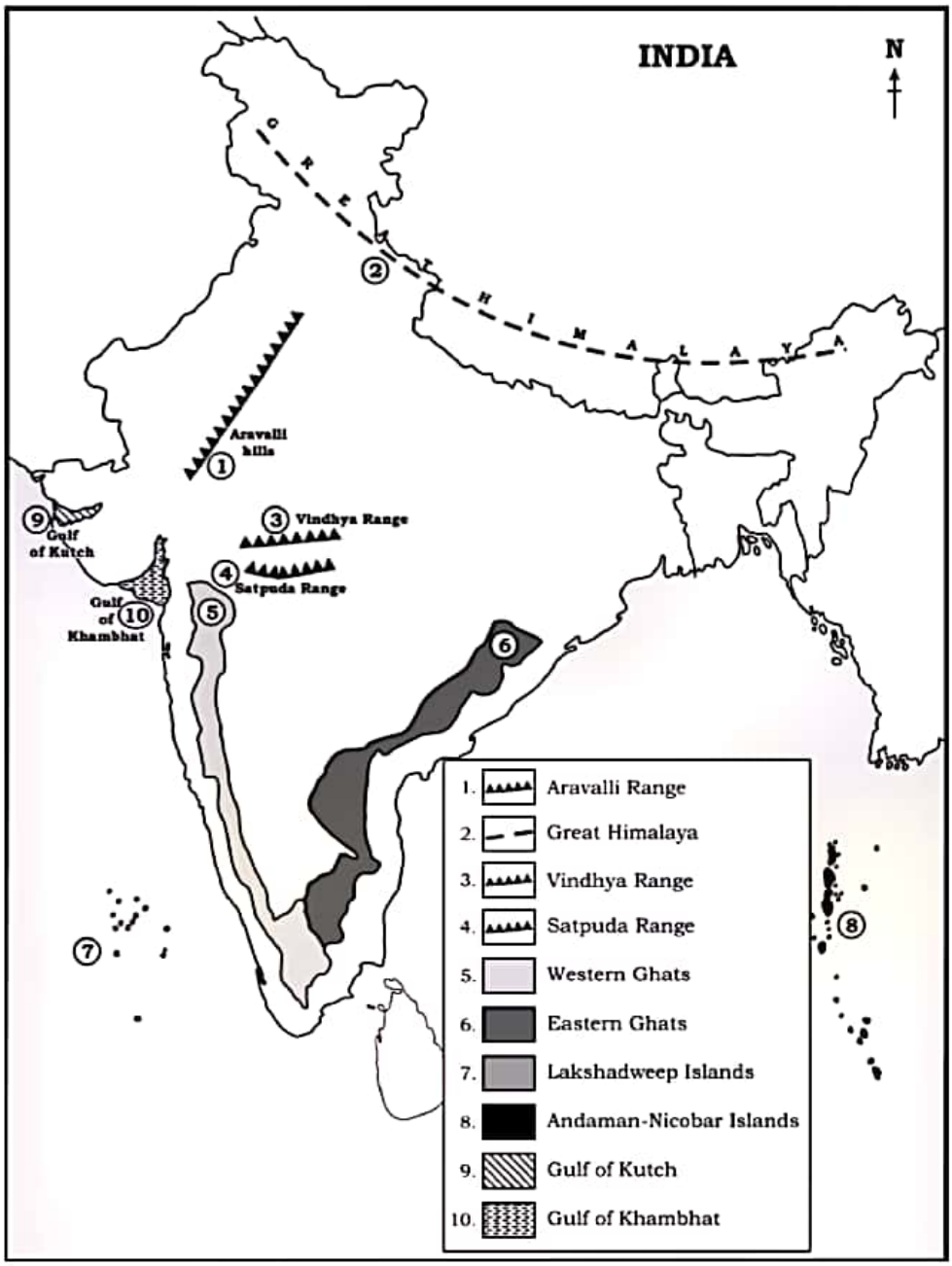
	Delta	Estuary
(1)	Delta means a tringular shaped landform formed at the mouth of the river due to the deposition of sediments carried by the river.	An Estuary refers to a water body along the coast i.e formed when fresh water of river meets the salt water of the sea or ocean.
(2)	Deltas are formed in the regions of low tides and coastal plains.	Regions of high tides and rift valleys witness estuaries.
(3)	Deltas are fertile lands	Estuary does not have fertile lands.
(4)	Ganga Brahmaputra, Krishna Kaveri form delta	Narmada and Tapi rivers form estuary.

Q.4. Mark the following on the map with the given information:

1. Outline Map of India.

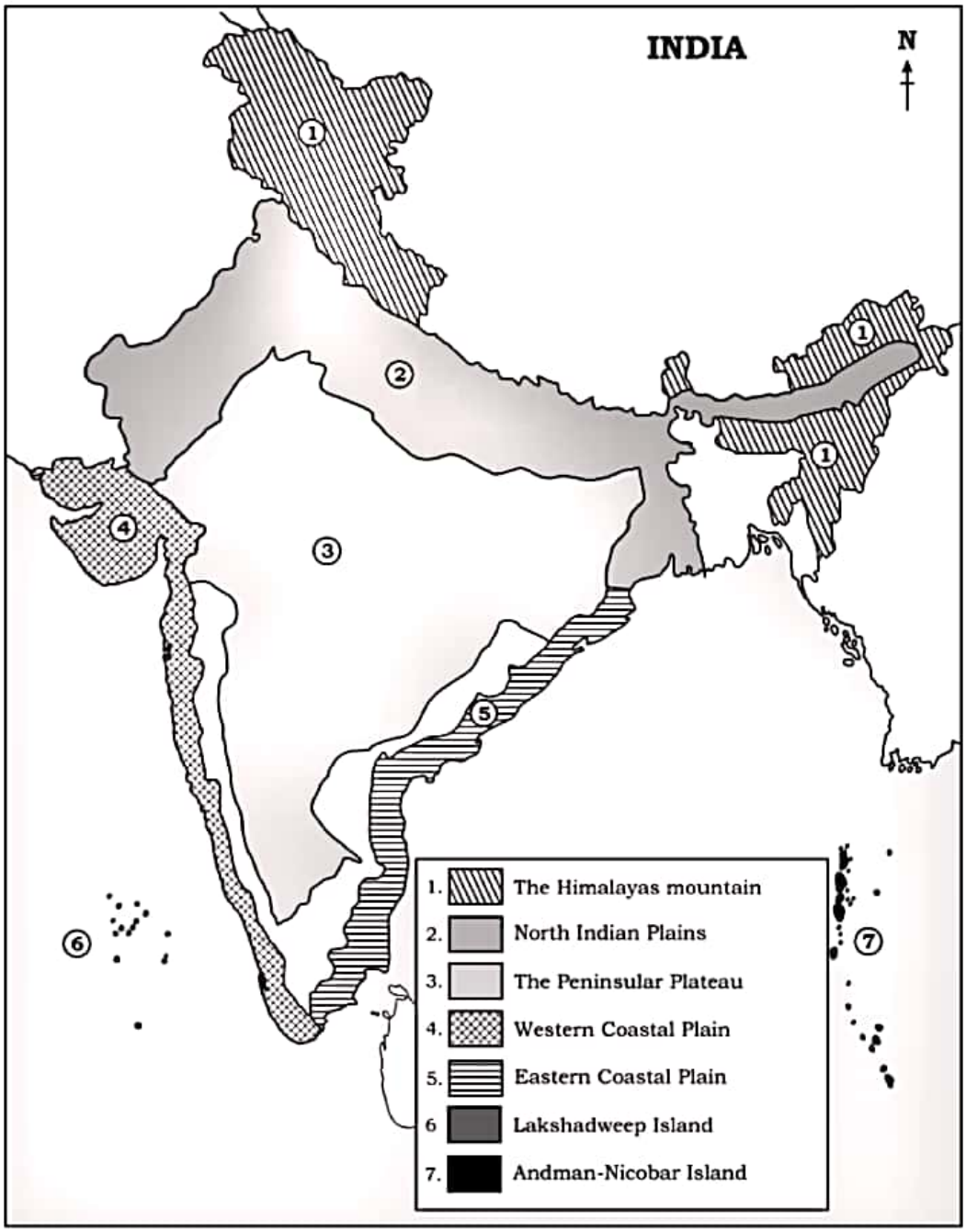
(1) Aravali ranges (2) Great Himalaya (3) Vindhya range (4) Satpuda range (5) Western Ghats (6) Eastern Ghats (7) Lakshadweep Islands (8) Andaman and Nicobar Island (9) Gulf of Kutch (10) Gulf of Khambhat

Ans.



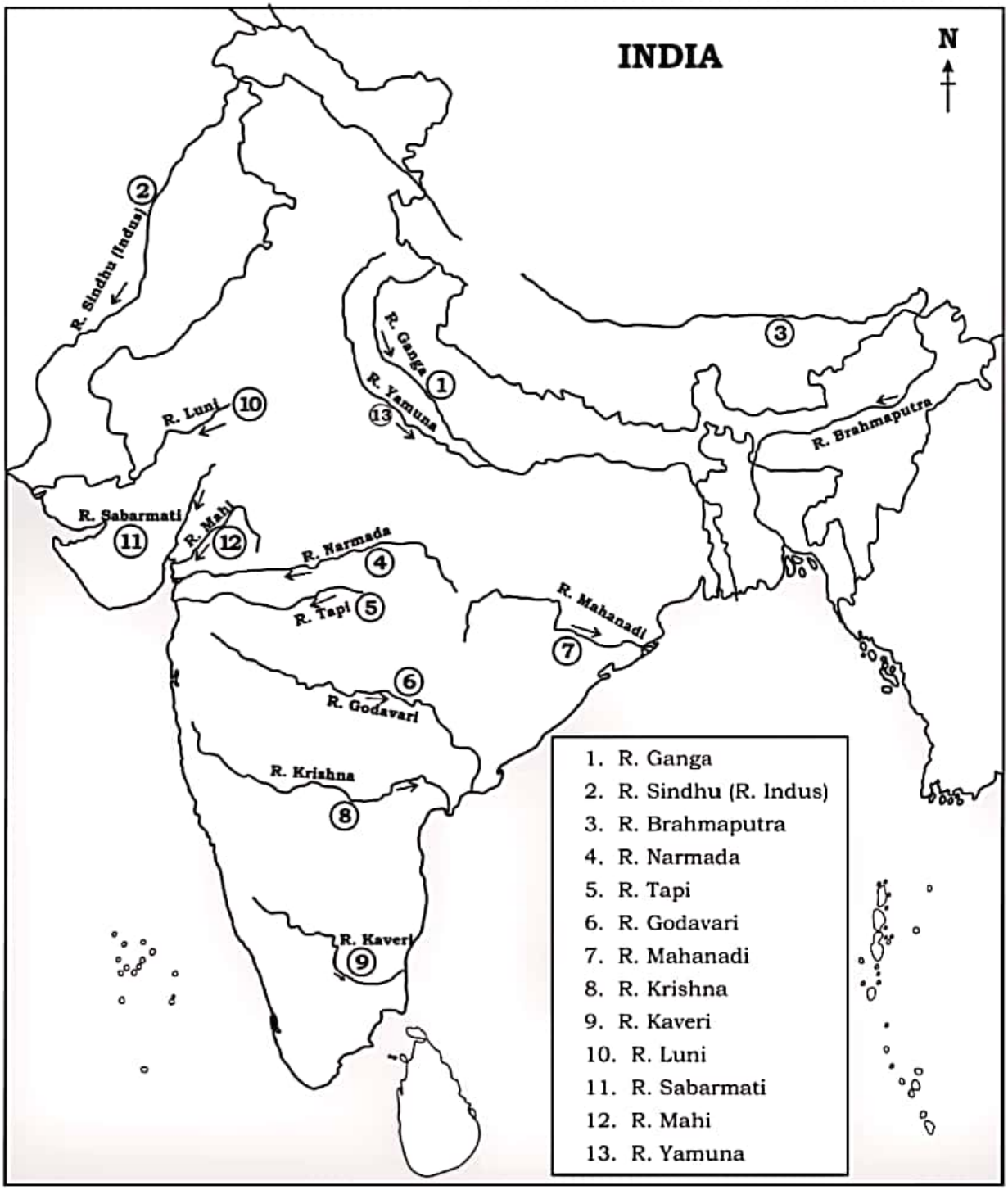
2. Look at the given map of India :

Ans.



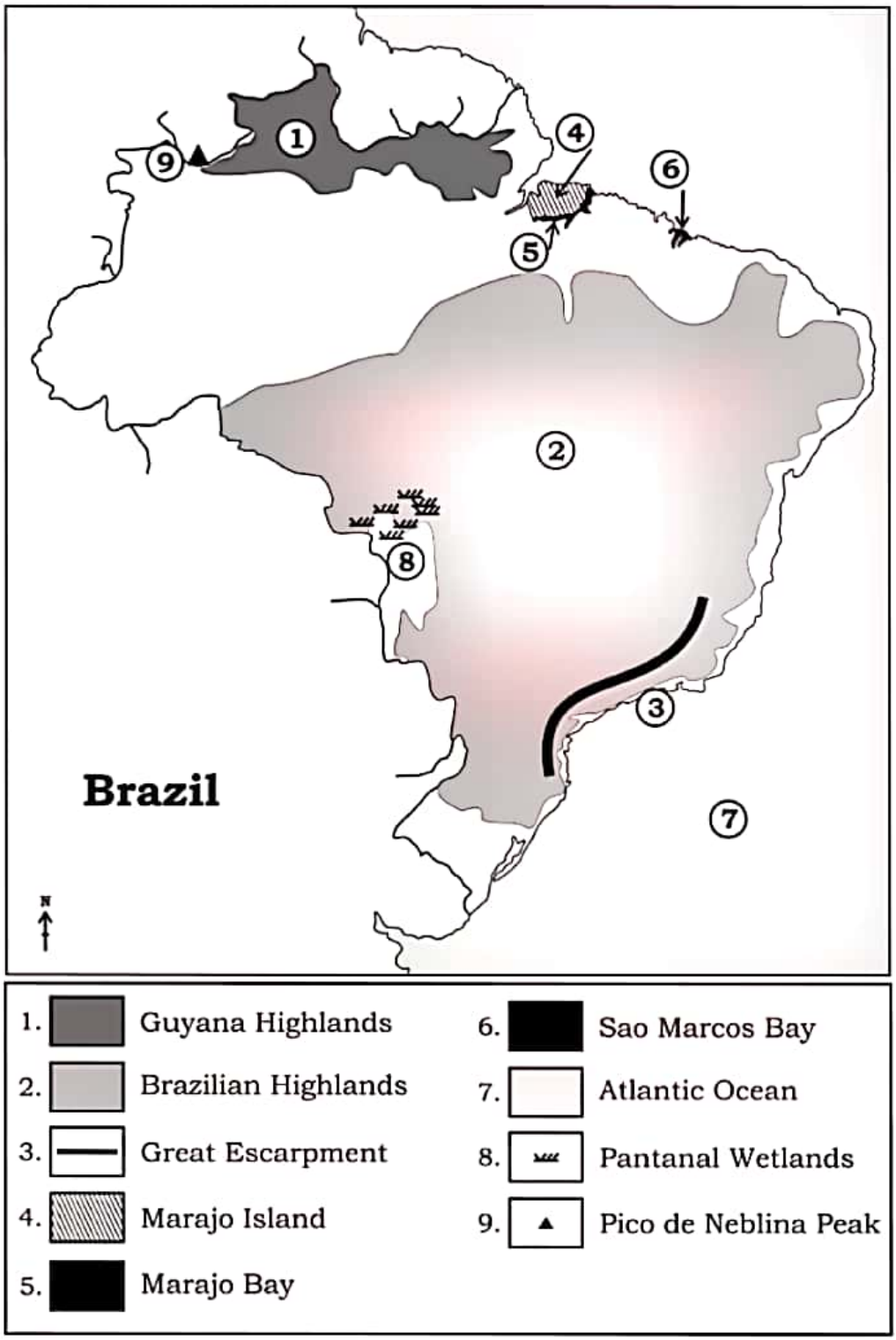
3. On the map of India show all major rivers.

Ans.



4. Outline Map of Brazil.
(1) Guyana Highlands (2) Brazilian Highlands (3) Great Escarpment (4) Marajo Island (5) Marajo Bay (6) Sao Marcos Bay (7) Atlantic Ocean (8) Pantanal Wetlands (9) Pico De Neblina Peak.

Ans.



5. Outline Map of Brazil.

(1) River Amazon (2) River Sao Francisco (3) River Parana (4) River Paraguay (5) River Itapecuru (6) River Paraniba (7) River Paraguaco (8) River Uruguay

Ans.

1. R. Amazon
2. R. Sao Francisco
3. R. Uruguay
4. R. Parana
5. R. Paraguay
6. R. Parnaiba
7. R. Itapecuru
8. R. Paraguaco

Q.5. (A) Give Geographical reasons:

***(1) There are no west flowing rivers in Brazil.**

Ans.

(i) Many rivers originating from the terminal portion of the Brazilian highlands flow northwards to meet the Amazon river and finally terminate in the Atlantic Ocean.

(ii) Also Sao Francisco River flows 1000 kms towards the north and then turns east to join the Atlantic Ocean.

(iii) The rivers Parana, Paraguay and Uruguay originating from the southern part of Brazilian highlands flow southwest and enter Argentina.

(iv) The Amazon river, originating from the Andes mountain in the west flows eastwards to meet the Atlantic Ocean.

(v) Thus, there are no west flowing rivers in Brazil.

***(2) There are dissimilarities between the eastern and the western coast of India.**

Ans.

(i) The western coast borders the Arabian Sea and the eastern coast borders the Bay of Bengal.

(ii) The western coast is by and large a rocky coast. At places, spurs taking off from the Western Ghats have extended right up to the coast. The eastern coast has formed as a result of depositional work of rivers.

(iii) The width of western coast is narrow, whereas that of eastern coast is wide.

(iv) Short and swift rivers originating from Western Ghats form estuaries, whereas because of the gentle slope the east flowing rivers flowing at low speed deposit sediments and form deltas.

(v) Thus there are dissimilarities between the eastern and the western coasts of India.

***(3) There are fewer natural ports on the eastern coast of India.**

Ans.

(i) The Westen coast is a coast of submergence wheras the eastern coasts are emergent or shallow, so the bigger ships cannot enter close to the land.

(ii) The Eastern rivers form the delta and so due to the deposition of the sediments by the river the ships find it dificult to reach the east cost.

(iii) The continental shelf on the east extends upto 500 km into the sea and water here is comperatively not very deep. As a result the ships can enter and leave only during tides.

(iv) As the eastern coastline is not indent, there are fewer natural ports on the eastern coast of India.

***(4) As compared to Amazon, the pollution in the river Ganga affects human life greatly.**

Ans.

(i) The Amazon Basin is sparsely populated region of Brazil. Unfavourable climate, heavy rainfall, inaccessibility and dense forest are the barriers for development of human settlements and industrialisation here.

(ii) On the other hand, Ganga Plain region is one of the most densely populated regions of India.

(iii) Due to flat fertile plains, availability of water, suitable climate, dense human settlements have been established in this region.

(iv) Mining activities in the Amazon basin causes pollution in the Amazon River, whereas industrial and domestic sewage adds to pollution of River Ganga. But as compared to Amazon, the pollution in the River Ganga affects human life greatly as the Ganga Plain is densely populated as compared to the Amazon Plains.

(5) There are no deltas on the western coast of India.

Ans.

(i) The western coast bordering the Western Ghats are by and large rocky coast having narrow width.

(ii) Many short and swift seasonal rivers originate from the steep western slopes of Western Ghats.

(iii) As the rivers flows through steep slopes, their velocity increases. So there is very little deposition done by them.

(iv) At places, spurs taking off from the Western Ghats have extended right up to the coast.

(v) Due to the steep slope and narrow width of the western coast, the rivers cover a short distance and drain into the Arabian sea. Hence, they form estuaries and not deltas.

(6) Many deltas are found along the Eastern coast of India.

Ans.

(i) The eastern coast borders the Bay of Bengal. It has formed as a result of depositional work of rivers.

(ii) Many east flowing rivers rising from the Western and Eastern Ghats after travelling a long distance join the Bay of Bengal at this coast.

(iii) Because of the gentle slope of the land, rivers flow at lower velocities and deposit the sediments brought with them at the coast. Therefore, this coast is comparatively wider than the west.

(iv) As a result, deltas are found along eastern coast of India.

(7) The region to the north of escarpment is called Drought Quadrilateral.

Ans.

(i) The eastern side of the Highlands is demarcated because of the Escarpment having an altitude of 790 m.

(ii) The Escarpment acts as a barrier to the Southeast trade winds and cause orographic type of rainfall in the coastal region.

(iii) Beyond the highlands the effect of these winds gets reduced leading to minimal rainfall.

(iv) A rain shadow region is formed to the north east of the escarpment. Thus, the region to the north of this area is called "Drought Quadrilateral".

(8) The Amazon Plains are covered by inaccessible tropical rainforest.

Ans.

(i) The northern part of Brazil lying between Equator and Tropic of Capricorn, i.e. in the Tropical zone is covered largely by Amazon Plains.

(ii) Amazon plains lying between the Guyana highlands and the Brazilian highlands form the largest plain land of Brazil.

(iii) The Amazon valley receives very heavy rainfall of around 2000 mm and the average temperature here is 25 to 28° C.

(iv) These conditions favor the dense growth of Tropical rain forests. Due to frequent flooding and dense undergrowth, these forests are largely inaccessible.

(9) Pantanal is called the largest wetlands in the world.

Ans.

(i) Pantanal lies towards the southwest part of the highland areas in Brazil.

(ii) Roughly 80% of the Pantanal flood plains are submerged during the rainy season.

(iii) This region is filled with swamps and marshes from north western Mato Grosso Do Sul in Brazil till Argentina.

(iv) Since it extends over 195000 sq.km area, Pantanal is called the largest wetland in the world.

(10) Agriculture is widely practised in the plains of Punjab region.

Ans.

(i) Plains of Punjab lie to the north of Rajasthan. This region is spread to the west of Aravalis and Delhi ranges.

(ii) These plains have formed as a result of the depositional work by river Satluj and its tributaries.

(iii) Since the soil here is very fertile, agriculture is largely practised in this region.

(iv) Thus, due to the availbility of fertile soil and ample water suppy agriculture is practised here.

Q. 5. (B) Answer in Detail:

***(1) Differentiate between the Physiography of Brazil and India.**

Ans.

	The Physiography of India	The Physiography of Brazil
(1)	The physiographic divisions of India are the Himalayas, the North Indian Plains, the Peninsula, Coastal Plains, Island Groups.	The physiographic divisions of Brazil are as follows : The Highlands, The Great Escarpment, The Coastal region, The Plains, The Islands.
(2)	There are long and high mountain ranges in northern and north eastern part of India in the form of Himalayan ranges. The Western Ghats and Eastern Ghats lie to the west and east of the Peninsular region. The average altitude of mountain ranges in India is around 6000-8000 m.	Whereas in Brazil there are no high and continuous mountain ranges. The eastern side of the Highlands is demarcated because of the Escarpment. The Great Escarpment located in south-eastern part of the Highlands has an altitude of 790 m in this region with the height gradually decreasing.

(3)	In India the Plains occupy a wide area in the north. The Plains lie between Himalayas in the North and the Peninsula in the South. It extends from Rajasthan in the West to Assam in the East. The Coastal Plains lie to the west and east of the Peninsula. The Western Coast is narrower and estuaries are formed here whereas the Eastern Coast is wide, with deltas formed along the coast.	Whereas in Brazil we have the Amazon Basin in the North and the Parana-Paraguay Basin to the South West which constitutes the Plain. Also a narrow coastal plain in confined to the North and the East. No deltas are formed along the coast but we find bays, sand dune complexes & beaches here.
(4)	The Peninsular Plateau region of India lies to the South of the North Indian Plains and is divided into 2 groups. The Central Highlands and the Deccan Plateau.	In Brazil the Highlands occupy an extensive area in the South and described as Brazilian Highlands or Brazilian Shield. Also to the North is the Guyana Highland. The Deccan Plateau slopes to East and the Central Highland to the North and is a source of many rivers. The Brazilian Plains slope to the North and the Guyana Highlands to the south.
(5)	The islands in India are either volcanic or coral in origin.	The islands in Brazil are mainly depositional in nature.
(6)	There are backwaters and a desert in India	Backwaters and desert are absent in Brazil.

***(2) What measures are being taken to control pollution in the rivers of India?**

Ans. Rivers in India are getting polluted due to the sewage and effluents being added to it and thus affecting its quality. Following measures are being taken to control pollution in the rivers in India.

(i) Treating of the sewage before draining it into the rivers.

(ii) Reducing the use of pesticides and insecticides as they drain into the water sources and pollute it.

(iii) Discharge of industrial effluents into rivers without proper treatment is now controlled.

(iv) Reusing the water for different purposes which reduces the overuse and pollution of water.

(v) Carrying out the cleaning and purification of the rivers water under the National River Conservation Plan (NRCP).

(vi) Creating awareness in the people about the importance of rivers and harmful effects of pollution.

(vii) Setting up of Pollution Control Boards (PCB) at the state and national level to curb pollution.

***(3) Explain the characteristics of the North Indian Plains.**

Ans.

(i) This division lies between Himalayan Mountains in the north and the Peninsula in the south.

(ii) Similarly, it extends from Rajasthan and Punjab in the west to Assam in the east.

(iii) It is mostly a flat low lying area.

(iv) The North Indian Plains are divided into two parts. The part lying to the east of the Aravalis is the basin of the river Ganga and is therefore known as the Ganga Plains. It slopes eastward.

(v) Most of the West Bengal state of India and Bangladesh together constitute the delta of Ganga-Brahmaputra system. It is known as Sunderbans. It is considered to be the world's largest delta.

(vi) The western part of the North Indian Plains is occupied by desert. It is also known as Thar Desert or Marusthali. Most of Rajasthan is occupied by this desert.

(vii) To the north of the desert lie the plains of Punjab. This region is spread to the west of Aravalis and Delhi ranges. These plains have formed as a result of the depositonal work by river Satluj and its tributaries. The slope of the plains is towards the west.

(viii) Because the soil here is very fertile, agriculture is largely practised in this region.

***(4) What could be the reasons behind the formation of swamps in the extensive continental location of Pantanal?**

Ans.

(i) Pantanal is one of the largest wetlands in the world, lying in the south west part of the highland areas.

(ii) It is a region of swamps and marshes in northwestern Mato Grosso do Sul in Brazil and it extends into Argentina too.

(iii) This region is drained by the river Paraguay and its tributaries.

(iv) They collect the water from the highland areas and deposit the sediments in the low lying Pantanal region.

(v) Pantanal is a gently sloped basin which is submerged throughout the year due to the filling of the sediments and water in the depression area of the Pantanal.

***(5) Which are the major water divides of India? Give Example.**

Ans. A mountain or an upland which seperates two drainage basins is known as Water Divide. The major Water Divides of India are :

(i) **Western Ghats :** The Western Ghats acts as a water divide and seperates the west flowing rivers like Zuari, Mandvi, Vaitarna draining into the Arabian Sea, from the east flowing rivers the Godavari, Krishna and Kaveri draining into the Bay of Bengal.

(ii) **Vindhya ranges :** It divides the drainage basin of the River Ganga and the River Narmada.

(iii) **Aravali ranges :** The Aravalis separates the west flowing river Luni from the east flowing River Banas.

(iv) **Satpuda ranges :** The Satpudas separate the Narmada drainage basin and the Tapi drainage basin.

(6) Why is Amazon considered as one of the important rivers?

Ans.

(i) The Amazon River, being the world's second longest river and the one with the most discharge, has a massive drainage basin covering most of northern South America.

(ii) It drains the vast Amazon Rainforest and creates unique flooded habitats along its banks.

(iii) The Amazon is home to several unique species, including the pink river dolphin and piranhas.

(iv) The river is an important route for trade and transportation.

(v) Rainforest towns like Manaus and Iquitos were found on its banks.

(vi) Due to the river's width and sheer water volume, especially during the wet season, ships from the Atlantic can travel more than 2000 miles inland

(vii) So, Amazon is considered as one of the important rivers.

Q. 5. (B) Write notes on :

***(1) The Amazon River Basin**

Ans.

(i) Amazon collects its headwaters from the eastern slopes of Andes Mountains in Peru.

(ii) Amazon River receives huge discharge. This is about 2 lakh m^3/s.

(iii) As a result, Amazon washes off the load supplied to it from the catchment.

(iv) Consequently, sediments are not deposited even at the mouth.

(v) A dense network of distributaries, which is a characteristic feature of river mouth areas, is by and large absent in the mouth region of Amazon.

(vi) Instead, we find a series of islands developed along the mouth of Amazon, beyond the coastline into the Atlantic Ocean.

(vii) At the mouth, the width of Amazon channel is 150 km.

(viii) Most of the course of the Amazon river is suitable for navigation.

***(2) Himalayas**

Ans.

(i) The Himalayas is one of the young fold mountains in the world.

(ii) The Himalayas extend from Pamir Knot in Tajikistan to the east. It is a major mountain system of the Asian continent.

(iii) In India, it extends from Jammu and Kashmir to Arunachal Pradesh.

(iv) The Himalayas is not a single mountain range. There are many parallel ranges in the system.

(v) The southernmost is known as Shiwaliks. It is also the youngest range.

(vi) Next to Shiwaliks are Lesser Himalayas, Greater Himalayas (Himadri) and Trans Himalayan ranges from south to north.

(vii) These ranges are young to old respectively.

(viii) These mountain ranges are also divided into Western Himalayas (or Kashmir Himalayas), Central Himalayas (or Kumaun Himalayas) and Eastern Himalayas (or Assam Himalayas).

***(3) The coasts of Brazil**

Ans.

(i) Brazil has a coastline of about 7400 km. They are divided into two parts namely northern and the eastern coast.

(ii) The northern coast extends from Amapa province in the north to Rio Grande De Norte in the east. This can be called as North Atlantic Coast. From there, the eastern coast extends towards the south.

(iii) The northern coast is characterized by mouths of many rivers including the Amazon. Therefore, this region is a low-lying region.

(iv) On this coast lie the Marajo island, Marajo and Sao Marcos Bays.

(v) Marajo, a large coastal island located between River Amazon and River Tocantins, lies on the northern coast.

(vi) The eastern coast receives large number of smaller rivers. The only major river which meets the Atlantic Ocean here is Sao Francisco.

(vii) The Brazilian Coast is characterized by a large number of beaches and sand dune complexes.

(viii) The Brazilian Coast is protected in some areas by coral reefs and atoll islands.

***(4) The Indian Peninsula**

Ans.

(i) The area lying to the south of North Indian Plains and tapering towards the Indian Ocean is called Indian Peninsula.

(ii) It consists of many plateaus and hill ranges.

(iii) The Aravalis in the north are the oldest fold mountains here.

(iv) It includes a series of plateaus bordering the Plains, Vindhyas and Satpuda ranges in the central part and the hilly regions of Western and Eastern Ghats.

***(5) The Great Escarpment**

Ans.

(i) Though it occupies a very small area, the nature of its slope and the effect it has on the climate makes is a separate physiographic region.

(ii) The eastern side of the Highland is demarcated because of the escarpment.

(iii) In this region, the altitude of the escarpment is 790 m.

(iv) In some regions, the height decreases gradually.

(v) The escarpment is very steep particularly from Sao Paulo to Porto Alegre.

(vi) The escarpment act as a barrier to the Southeast Trade winds giving rise to the rainshadow area in the northeast part of the highlands. The region to the north of this area is called 'Drought Quadrilateral.

(6) The Western Ghats.

Ans.

(i) Western Ghats also known as Sahyadri (Benevolent Mountains) is a mountain range that runs parallel to the western coast of the Indian peninsula.

(ii) The range runs north to south along the western edge of the Deccan Plateau, and separates the plateau from a narrow coastal plain, called Konkan, along the Arabian Sea.

(iii) The range starts near the border of Gujarat and Maharashtra, south of the Tapi river, and runs approximately 1,600 km through the states of Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu ending at near Kanyakumari, at the southern tip of India

(7) Island group of India.

Ans.

(i) India has many small and large islands along the coast of the mainland. These are included in the coastal island group.

(ii) Besides, India has two large group of islands, one each in the Arabian Sea and in Bay of Bengal.

(iii) The islands in the Arabian Sea are known as Lakshadweep whereas the islands in the Bay of Bengal are called the Andaman and Nicobar Islands.

(iv) Most of the islands in Lakshadweep are atoll islands.

(v) They are small in extent and not very high.

(vi) Islands in the Andaman group are mainly volcanic islands.

(vii) They are large with hills in their interior parts of includes an island called Barren Island which has the only active volcano in India. There are atolls in the Nicobar group too.

(8) Brazilian Highlands.

Ans.

(i) The southern Brazil is occupied by an extensive plateau. It is differently described as Brazilian Highlands or Brazilian Shield or Brazilian Plateau.

(ii) Brazilian and Guyana Highlands together form the core of South American continent.

(iii) The main part of the Guyana highlands is in Venezuela and it extends upto French Guiana. In Brazil, it covers the states of Roraima, Para and Amapa in the north.

(iv) The lower part of these highlands is found in Brazil. But the highest peak of Brazil, Pico de

Neblina, is 3014 m high and lies on the border between Brazil and Venezuela.

(v) The regions to the east and south of the Brazilian highlands have an altitude of more than 1000m. But in other parts, the altitude is between 500 to 1000m.

(vi) The highlands gradually slope towards north and slopes are not very steep.

(vii) The tributaries of Amazon flowing through this region make rapids and waterfalls. Towards the north the slopes are steep but not abrupt. A number of rivers take off from the terminal portion of the highlands and flow northwards to meet Atlantic Ocean.

(viii) Some major rivers like Uruguay, Paraguay and Parana originate from the southern slopes of the highlands and enter Argentina. Its slope towards the east is steep and it appears in the form of an escarpment.

(9) Coastal Plains of India.

Ans.

(i) India is blessed with a long coastline extending for approximately 7500 km.

(ii) It lies to the western and eastern part of the Peninsula. Its western and eastern coastlines show remarkable dissimilarities.

(iii) The western coast borders the Arabian Sea. It is by and large a rocky coast.

(iv) At places, spurs taking off from the Western Ghats have extended right up to the coast. Its width is also less.

(v) Rivers originating from Western Ghats are short and swift and hence they form estuaries and not deltas.

(vi) The eastern coast borders the Bay of Bengal. It has formed as a result of depositional work of rivers.

(vii) Many east flowing rivers rising from the Western and Eastern Ghats meet this coast.

(viii) Because of the gentle slope of the land, rivers flow at lower velocities and deposit the sediments brought with them at the coast. As a result, deltas are found along this coast.

(10) The Plains of Brazil

Ans.

(i) The plains in Brazil are confined to two areas namely the Amazon basin in the north and Paraguay-Parana source region in the southwest.

(ii) Amazon plains lying between the two highlands form the largest plain land of Brazil.

(iii) Amazon plains lying in the northern parts of Brazil generally slope eastwards.

(iv) The Amazon basin is quite wide in the west (about 1300 km) and it narrows eastward. Its width is minimum where the Guiana Highlands and Brazilian Highland come closer. (240 km.)

(v) As the river approaches the Atlantic Ocean, the width of the plains increases.

(vi) These are mostly forested areas and largely inaccessible due to frequent flooding and dense undergrowth. Most of the Amazon plains are covered by tropical rainforests.

(vii) The other plains in Brazil are located to the southwestern part of the highlands. They form the source region of Paraguay and Parana rivers.

(viii) The source region of Paraguay slopes towards the south while the source region of Parana slopes towards the southwest.

(ix) Pantanal is one of the largest wetlands in the world. It lies towards the southwest part of the highland areas . It is a region of swamps and marshes in northwestern Mato Grosso Do Sul in Brazil and it extends into Argentina too.

(11) Coastal Rivers of Brazil.

Ans.

(i) Brazil has a number of short coastal rivers.

(ii) The coastal area being densely populated these rivers attain significance.

(iii) River Parnaiba and River Itapecuru flowing northwards meet the North Atlantic Ocean.

(iv) The rivers that enter South Atlantic Ocean collect their headwaters along the escarpment.

(v) River Puraguaco enters the Atlantic Ocean near Salvador town.

(12) Paraguay - Parana system.

Ans.

(i) These two rivers are located in the southwestern part of Brazil.

(ii) Both the rivers form the catchment of River Plata in Argentina.

(iii) These two rivers and river Uruguay in extreme south of the highlands collect their headwaters from the southern portion of the highlands.

(13) Sindhu River System.

Ans.

(i) Sindhu and its tributaries (Jhelum, Chenab, Ravi and Satluj) drain the Western Himalayas i.e. they flow through the state of Jammu and Kashmir.

(ii) They flow almost parallel to each other.

(iii) A major tributary of river Sindhu , the Satluj, originates near Mansarovar and flows westwards.

(iv) Punjab Plains have formed from the depositional work of this river and its tributaries.

(v) Sindhu flows through Pakistan and then meets the Arabian Sea.

(14) Ganga River System:

Ans.

(i) The river Ganga originates from the Gangotri glacier and crosses the Himalayas to become an east-flowing river.

(ii) Many tributaries of the Ganga also flow in a similar manner.

(iii) Yamuna, originating at Yamunotri, is a major tributary of Ganga.

(iv) Another major tributary of the Ganga flows through the northern part of the Greater Himalayas, crosses the Himalayas to enter India.

(v) When it flows through the Himalayas it is called Tsang Po.

(vi) When it crosses the Himalayas, it is called Dihang and its eastward flow thereafter is called as Brahmaputra.

(vii) From time to time, Ganga meets its tributaries, hence its discharge increases.

(viii) Ganga receives Brahmaputra as its tributary in its lower reaches in Bangladesh. The huge volume of water and huge deposition has led to the formation of a large delta.

(ix) Besides these Himalayan rivers, Ganga receives a number of tributaries from Peninsula like Chambal, Ken, Betawa, Shon, Damodar etc.

(15) Rivers Meeting the Arabian Sea.

Ans.

(i) The west flowing rivers occupying the area between the Western Ghats and the Arabian Coastline are short in length but swift.

(ii) This condition of short and swift river system exists in the states of Kerala, Karnataka, Maharashtra and Southern Gujarat.

(iii) Further northwards one comes across the river system flowing in to the Gulf of Khambhat.

(iv) These river systems are Tapi, Narmada, Mahi and Sabarmati.

(v) Tapi and Narmada flow slowly through rift valleys.

(vi) Mahi River flows from North East to South West direction whereas River Sabarmati collecting its headwaters from the southern slopes of Aravali ranges flows in somewhat North-South direction.

(vii) Another noteworthy river forming the catchment of Arabian Sea is River Luni.

(viii) It originates along the western slopes of Aravali range and flows in somewhat northeast to southwest direction and flows into Gulf of Kutchch.

(16) Rivers Meeting the Bay of Bengal

Ans.

(i) Most of the area of the Peninsula is drained by the rivers flowing towards Bay of Bengal.

(ii) The important river systems of this group are Mahanadi, Godavari, Krishna and Kaveri.

(iii) Mahanadi basin occupies the northeastern part of the Peninsula.

(iv) Godavari, Krishna and Kaveri originate in the eastern slopes of the Western Ghats.

(v) River Godavari is the second largest river system of India in terms of the catchment area.

(vi) To the south of Godavari is located the basin of River Krishna. It major tributaries are Bhima and Tungabhadra.

(vii) River Kaveri Basin flows through the states of Karnataka and Tamil Nadu. It is one of the major rivers of Peninsula.

(viii) It is a river that has been harnessed for irrigation since a long time.

(ix) The major rivers of Godavari, Krishna and Kaveri rise from the eastern slopes of the western ghats and flow towards Bay of Bengal. However the river originating from westward slopes merging into Arabian sea are swift.

Make friends with maps! *(Textbook Page No. 14)*

Observe the map and answer the questions :

(a) *(Refer to Textbook Page No. 14, Fig 3.1)*

(i) In which direction does the region with an altitude of more than 6000m lie in India ?

Ans. The region with an altitude of more than 6000m lie in India towards the north and north east.

(ii) Look for the south flowing river in the peninsular region. In which river basin does it lie?

Ans. River Wardha and Wainganga are the south flowing river in the peninsular region. These lies in the Godavari river basin.

(iii) In which direction is the slope of the region in the north shown in dark green.

Ans. The slope of the region in the north shown in dark green is towards the east.

(iv) Make a list of plateaus located in between Aravalli ranges and Chota Nagpur plateau.

Ans. Plateaus located in between Aravalli ranges and Chota Nagpur plateau are Mewad plateau, Bundelkhand, Baghelkhand and Malwa plateau.

(v) Name the peak shown in the Eastern Ghats

Ans. Mahendragiri is the peak shown in the Eastern Ghats.

(vi) Which mountains demarcate the deep plains of Brahmaputra?

Ans. Dafla hills, Patkai hills, Naga hills, Garo, Khasi and Jaintia hills demarcate the deep plains of Brahmaputra.

(vii) Give the relative location of the Nilgiri Hills.

Ans. Nilgiri is at the convergence of Western Ghats and Eastern Ghats and lies in western Tamil Nadu of southern India.

(viii) In which direction does the height of Sahyadri hills increase?

Ans. The height of Sahayadri hills increase towards the south.

(ix) The Vindhyas act as a water divide between which two river basins?

Ans. The Vindhyas acts as a water divide between Ganga river system and Narmada river system.

(b) *(Refer to Textbook Page No. 15, Fig 3.2)*

(i) What is the range of altitude of the Amazon river basin?

Ans. The range of altitude of Amazon river basin is from 0 meters to 200 meters.

(ii) Between which two highlands is the Amazon river basin located?

Ans. The Amazon river basin is located between Guyana Highlands and Brazilian Highlands.

(iii) Observe the region with the altitude of 500 to 1000 meters. Describe the locational extent of this region in yellow with reference to the direction.

Ans. The region in yellow represents the Brazilian highlands. They cover most of the eastern and southern parts of Brazil, stretching from north east to south east.

(iv) What do the isolated regions shown in yellow indicate?

Ans. The isolated region shown in yellow indicate Brazilian highlands or Brazilian plateau or Brazilian shield.

(v) Besides the Amazon river basin, where else do you find regions with an altitude of less than 200m?

Ans. Besides Amazon basin the other regions with an altitude of less than 200 m are Pampas, Parana and Paraguay basin, Eastern and Northen coastal region.

(vi) Describe the plateau region with height of 200 to 500 m through which tributaries of Amazon how in your own words.

Ans. The highlands here gradually slope towards north and slopes are not very steep. The tributaries of Amazon, eg. Xingu river flowing through this region make rapids and waterfalls.

Make friends with maps! *(Textbook Page No. 16)*

(Refer to Textbook Page No. 14, Fig 3.1)

(a) In which direction do the Aravalis lie?

Ans. The Aravalis lie in Northwest direction. **OR** Aravalis lie to the North of peninsula.
It stretches from the north east to south west.

(b) Aravali ranges act as a water divide between which rivers?

Ans. The Aravali act as a water divide between river Luni to the west and river Banas to the east.

(c) Name the hills located on the plateaus to the east of Aravalis.

Ans. Hills located on the plateaus to the east of Aravalis are Vindhya, Satpuda, Mahadeo, Kaimur hills and Maikal ranges.

(d) Across which states has the Deccan Plateau spread?

Ans. Deccan plateau has spread across Maharashtra, Karnataka, Telangana, Andhra Pradesh.

(e) Which hill ranges lie to the west of the Deccan Plateau?

Ans. Sahyadri hill ranges (Western ghats) lie to the west of the Deccan Plateau.

(f) Enumerate the characteristic of the Western Ghats.

Ans.

(i) The Western Ghats are continuous chain of mountains extending from north to south for about 1600 km. They run parallel to the west cost of India.

(ii) In the north, i.e. in Maharashtra and Karnataka these mountain ranges are referred as Sahyadris and in the south they are referred as Annamalai hills.

(iii) The height of the Western Ghats increases towards the south.

(iv) These hill ranges comprise of many peaks such as Kalsubai Peak (1646 m) located to the north and Anaimudi Peak (2695 m) located to the south of Western Ghats.

(v) The highest peak of Western Ghats is Anaimudi Peak (2695 m) located in Annamalai hills.

(vi) The western slope of the western ghats is steep while the eastern slope is gentle

(vii) The western ghats acts as a water divide for the rivers flowing towards Arabian Sea and Bay of Bengal. The major rivers of Godavari, Krishna and Kaveri rise from the eastern slopes of the western ghats and flow towards Bay of Bengal. However, the river originating from westward slopes merging into Arabian Sea are swift.

(g) Compare the Eastern Ghats and Western Ghats

Ans. Refer Q.3. (C) Distinguish Between : Q. No. (1)

(h) Why are the Western Ghats called a water divide ?

Ans. The Western Ghats divides the basins of the west flowing rivers like Vaitarna, Madvi etc. flowing towards the Arabian sea from those of the east flowing rivers like Godavari, Krishna etc. flowing towards Bay of Bengal.

Colours of Both *(Textbook Page No. 19)*

Use the maps and the indices to answer the following:

(Refer to Textbook Page No. 14, Fig 3.1 & Page No. 15, Fig. 3.2)

(a) In which parts do the areas with highest altitude lie in both the countries, respectively?

Ans. In India, the Himalayas occupying the northern and the north eastern part has highest altitude. In Brazil, the Escarpment occupying the southern part has highest altitude and the highest peak Pico de Neblina lies to the north in the Guyana highlands.

(b) In which country is the range of altitude higher?

Ans. India has the highest range of altitude.

(c) Compare the highest range of altitudes given in both the countries. What difference do you see?

Ans. The highest range of altitude in Brazil is more than 1000m. Whereas in India, the highest range of altitude is more than 8000 m.

(d) In which direction is the slope of the Amazon river basin region?

Ans. The slope of Amazon Basin is towards the east.

(e) In which direction is the slope of the Deccan Plateau of India ?

Ans. The slope of Deccan plateau is towards the east.

(f) Tell the regions of rain shadow in both the countries.

Ans. The rain shadow regions of India are eastern side of Sahyadri ranges on the Deccan plateau. In Brazil the rain shadow regions are the area in the north eastern part of the highlands.

Try This *(Textbook Page No. 19)*

Write a comparative note on the basins of Ganga and Amazon river. You may consider following points for the comparison.

Ans.

Points for comparison	Ganga River Basin	Amazon River Basin
(i) Size of catchment area	Spreading across the northern and eastern parts of India the Ganga River basin has a total catchment area of 10,16,124 sq. km.	Spreading across the northern parts of Brazil the Amazon River basin has a total catchment area of 70,50,000 sq. km.
(ii) Their relative location within respective countries	The Ganga river basin lies to the south of the Himalayas in the North Indian plains and also occupies the northern part of the peninsula. i.e. the Central Highlands.	The Amazon river basin occupies the entire region in the north of Brazil right from the Guyana highlands to the northern part of the Brazilian highlands.
(iii) Headwater regions of rivers.	Ganga river originates from Gangotri glacier in Uttarakhand.	The Amazon river originates from the eastern slopes of Andes mountains in Peru.
(iv) Orientation of the rivers	The Ganga flows eastwards passing through the states of Uttar Pradesh, Bihar and West Bengal and terminates into the Bay of Bengal. One of its branch enters into Bangladesh.	The Amazon river flows from the west to the east entirely through the states of Amazonas and Para in northern Brazil and terminates into the North Atlantic Ocean.
(v) Major tributaries and their orientation	(a) Yamuna is the major right bank tributary of the river Ganga originating from the Yamunotri glacier and meeting Ganga at Allahabad. Other right bank tributaries originating from the Peninsula like Chambal, Ken, Betwa and Son flow northwards and join Ganga. (b) The left bank tributaries like Gomati, Ghagra, Gandak and Kosi flow South and meet Ganga.	(a) Rivers like Negro, Branco, Paru flow south from Guyana highlands and meet the Amazon river as left bank tributaries. (b) River Madeira, Juruaka, Xingu and Tocantins flow northwards and join the Amazon river at its right bank.
(vi) Any other point(s)	(a) The Ganga river basin is densely populated due to the deposition of fertile alluvial soil and plenty of water available for agriculture. (b) Fertile plains and deltas are formed. (c) River Ganga is 2525 km long. (d) Water discharge is 16,648 Cu.m. per sec.	(a) Amazon river basin is sparsely populated due to dense equatorial rain forests, unfavourable climate and lack of transport links. (b) No deltas are formed but islands have developed along the mouth of Amazon River. (c) River Amazon is 6400 km long. (d) Water discharge is 2,08,000 Cu.m. per sec.

ASSIGNMENT - 3

Time : 1 Hr. **Marks : 20**

Q.1. (A) Complete the sentences by choosing the correct option: **(2)**

(1) Amazon is a large river in the world. Near its mouth ..... .

(a) deltaic regions are found (b) no deltas are found

(c) deposition of sediment occurs (d) fishing is done

(2) The major river ..... of peninsula flows through the states of Karnataka and Tamil Nadu.

(a) Kaveri (b) Ganga Sindhu (c) Ganga (d) Brahmaputra

Q.2. Identify the correct group : **(2)**

(1) The order of the physiographic units in Brazil while going from North west to south east

(i) Parana River basin -Guyana Highlands - Brazilian Highlands

(ii) Guyana Highlands - Amazon River basin - Brazilian Highlands

(iii) Coastal plains - Amazon River basin - Brazilian Highlands

(2) These Rivers of Brazil all north flowing -

(i) Juruika - Xingu - Aragua

(ii) Negro - Branco - Paru

(iii) Japura - Jarua - Purus

Q.3. Answer the following in one sentence : **(2)**

(1) What are "Kayals"?

(2) What is the southernmost range of Himalayas called?

Q.4. (A) Distinguish Between: **(2)**

*(1) Eastern Ghats and Western Ghats

Q.4. (B) Outline Map of Brazil. **(2)**

(1) Guyana highlands (2) Great Escarpment

(3) Marajo Island Pantanal wetlands (4) Pico de Neblina peak

Q.5. Give Geographical reaons. **(4)**

(1) Many deltas are found along the Eastern coast of India.

(2) Pantanal is called the largest wetlands in the world.

Q.6. Answer in Detail **(6)**

(1) Explain the characteristics of the North Indian Plains.

(2) The Great Escarpment.

❖❖❖

4 Climate

Points to Remember:

- Brazil experiences wide range of climatic variatio due ton — **Vast latitudinal extent.**
- Climate near the Equator — **Hot.**
- Climate near the Tropic of Capricorn — **Temperate.**
- Brazil receives rainfall from — **South East trade winds; North East trade winds.**
- Type of rainfall in coastal region of Brazil — **Orographic**
- Reason for orographic rain in Brazil — **The obstruction of Escarpments.**
- Rainshadow region is also called — **Drought Quadrilateral.**
- Temperature in Northern part of Brazil — **High.**
  Temperature in southern part of Brazil — **Low.**
- The zone in which most of Brazil and India lies — **Tropical zone.**
- Average temperature in Amazon Valley — **25°C – 28°C.**
- Rainfall in Amazon valley — **2000 mm.**
- Type of climate in India — **Monsoon Type.**
- Average temperatures are higher throughout the year in India — **As the Sunrays are perpendicular upto the Tropic of Cancer.**
- India experiences diversity in climatic conditions due to — **Latitudinal location and altitude.**
- Less amount of rainfall in Gujarat and Rajasthan — **as winds blow parallel to Aravali range.**
- Frequent natural disasters in India — **Erratic rainfall, droughts, cyclones, floods etc.**
- Wettest places in the world — **Mawsynram and Cherrapunji.**
- Driest place in India — **Jaisalmer.**
- Four seasons of India — **(i) Hot weather season (ii) Season of rainfall (monsoon) (iii) Season of retreating monsoon (iv) Cold weather season.**
- In India, temperature increases towards — **South**
- In India, temperature decreases towards — **North**
- In Brazil, temperature increases towards — **North**
- In Brazil, temperature decreases towards — **South**
- Amount of rainfall received in Cherrapunji and Mawsynram — **11000 mm**
- Amount of rainfall received in Shillong — **1000 mm**
- State receiving rainfall during the retreating monsoon season — **Tamil Nadu**
- Low pressure area developed in India due to high temperatures in summer — **Punjab Plain and Thar desert in Rajsthan**
- Rainfall in North-Eastern Brazilian coast — **around 1000-1200 mm.**

MASTER KEY QUESTION SET – 4

Q.1. Choose the correct option and rewrite the complete answer:

(1) The climate found near the Equatorial region is ..... .
(a) hot (b) dry (c) humid (d) cold

(2) The climate found near the Tropic of Capricorn is ..... .
(a) hot (b) humid
(c) temperate (d) cold

(3) Brazil gets rainfall from ..... trade winds.
(a) North - West and South - West
(b) South - East and North - West
(c) South - West and North - East
(d) North - West and South - East

(4) The ..... act as an obstruction to the winds coming from sea in Brazil.
(a) Himalayas (b) Escarpments
(c) Andes (d) Western Ghats

(5) The coastal region of Brazil receives ..... type of rainfall.
(a) orographic (b) cyclonic
(c) convectional (d) frontal

(6) Since the convergence of trade winds are weak near the equator, ... are not formed.
(a) clouds (b) ocean currents
(c) cyclones (d) tides

(7) The average temperature in the Amazon valley is ..... .
(a) 15° - 20°C (b) 13° - 15°C
(c) 30° - 32°C (d) 25° - 28°C

(8) The Amazon valley receives around ..... . mm of rainfall
(a) 2000 (b) 1800
(c) 1500 (d) 1000- 1200

(9) India has ..... type of climate
(a) monsoon (b) dry
(c) cold (d) humid

(10) The diversity in the climatic conditions of India are due to the ..... location and altitude of the place.
(a) longitudinal (b) latitudinal
(c) equatorial (d) tropical

(11) The ..... ocean and the Himalayan ranges exert a great influence on the climate of India.
(a) Atlantic (b) Arctic
(c) Pacific (d) Indian

(12) Orographic type of rainfall occurs in India because of the natural obstruction of ..... .
(a) Himalayas (b) Escarpments
(c) Highlands (d) Sahyadris

(13) As the ..... passes through the middle of India, India is considered to be a tropical region.
(a) Tropic of Capricorn (b) Equator
(c) Tropic of Cancer (d) 60°S latitude

(14) Most part of Brazil lies in the ..... zone.
(a) polar (b) tropical
(c) sub-tropical (d) temperate

Ans. (1) Hot (2) temperate (3) North - East and South - East (4) Escarpments (5) Orographic (6) Cyclones (7) 25° - 28°C (8) 2000 mm (9) monsoon (10) latitudinal (11) Indian (12) Himalayas (13) Tropic of Cancer (14) Tropical

Q.2. (A) Match the following:

Column 'A'	Column 'B'
(1) Wettest places in the world	(a) Tamilnadu
(2) Driest place in India	(b) Cherrapunji and Mawsynram
(3) Rainshadow region in Brazil	(c) Jaisalmer, Rajasthan
(4) Climate of India	(d) Drought Quadrilateral
	(e) Monsoon type
	(f) Dry type

Ans. *(1 – b), (2 – c), (3 – d), (4 – e)*

***(B) Write names of the states / regions in appropriate columns.**

Bihar, Tocantins, Pernambuco, Alagoas, Eastern Maharashtra, Western part of Rajasthan, Gujarat, Rio Grande Do Norte, Paraiba, Western Ghats, Eastern Himalayas, Western Andhra Pradesh, Roroima, Amazonas, West Bengal, Rio Grande do Sul, Santa Catarina, Goa

Ans.

States / Regions	India	Brazil
High Rainfall	Western Ghats, Eastern Himalayas, Goa	Tocantins, Rio Grande do Sul, Roraima
Moderate rainfall	Bihar, Eastern Maharashtra West Bengal	Santa Catarina, Amazonas, Alagoas

Low rainfall	Western part of Rajasthan, Gujarat, Western Andhra Pradesh	Pernambuco, Paraiba, Rio Grande do Norte, Alagoas

Q.3. (A) State whether right or wrong. Rewrite wrong sentences:

***(1) The fact that Brazil lies on the equator affects its climate in a big way.**

Ans. Right

***(2) India and Brazil have the same seasons at the same time.**

Ans. Wrong - India and Brazil have different seasons at the same time.

***(3) India faces tropical cyclones frequently.**

Ans. Right

***(4) Brazil gets a lot of rainfall because of the southwest monsoon winds.**

Ans. Wrong - Brazil gets rainfall from South-East Trade Winds and North-East Trade Winds. **OR** India gets a lots of rainfall because of the South West Monsoon Winds.

(5) Brazil experiences wide climatic variation due to its vast longitudinal extent.

Ans. Wrong - Brazil experiences wide climatic variation due to its vast latitudinal extent.

(6) The winds more in the vertical direction in northern Brazil.

Ans. Right

(7) The rainfall reduces on the windward side of the Great Escarpment.

Ans. Wrong - The rainfall reduces on the leeward side of the Great Escarpment. **OR** The rainfall is high on the windward side of the Great Escarpment.

(B) Answer in one sentence each.

(1) Why does Brazil experience wide climatic variations?

Ans. Brazil has vast latitudinal extent because of which it experiences wide climatic variations.

(2) Which winds bring rainfall to Brazil?

Ans. Brazil receives rainfall from the South East and North East Trade Winds.

(3) What acts as an obstruction to the winds coming from sea in Brazil?

Ans. The Escarpments act as an obstruction to the winds coming from the sea in Brazil.

(4) Which region is called the 'Drought Quadrilateral'?

Ans. The northern part of Brazil beyond the Highlands is called 'Drought Quadrilateral'.

(5) Where is the difference in temperature negligible in Brazil?

Ans. The difference in temperature in the coastal regions near the equator is negligible in Brazil.

(6) In which zone does most of Brazil and India lie?

Ans. Most part of Brazil and India lies in the Tropical zone.

(7) What passes through the northern part of Brazil?

Ans. The equator passes through the northern part of Brazil.

(8) What is the average temperature in Amazon valley?

Ans. The average temperature in Amazon valley is 25° – 28°C.

(9) Which part of Brazil has cooler climate?

Ans. The climate is cooler in the Highlands.

(10) Why do the Brazilian coasts experience mild and humid climate?

Ans. The Brazilian coasts experience mild and humid climate because of its proximity to sea.

(11) Which type of climate is found in India?

Ans. India has monsoon type of climate.

(12) What passes through middle of India?

Ans. The Tropic of Cancer passes through the middle of India.

(13) What diversifies the climatic conditions of India?

Ans. The diversity in the climatic conditions of India are due to the latitudinal location and altitude of India.

(14) What exerts a great influence on the climate of India and the origins of the monsoon?

Ans. The Indian Ocean and the Himalayan ranges exert a great influence on the climate of India and the origin of monsoons.

(15) In India, what obstructs the cold winds blowing from the North?

Ans. In India, the Himalayas obstruct the cold winds blowing from the north.

(16) What brings more rain in the coastal regions of India?

Ans. The obstruction caused by the Eastern and Western Ghats bring more rain in the coastal regions of India.

(17) Which natural disasters does India face frequently?

Ans. India faces natural disasters like erratic rainfall, droughts, cyclones, floods, etc. frequently.

(18) Find out more about different ways of classification of the seasons. For example, what is summer?

Ans. The hot weather season is called the summer. The season where the rain begins is called the Monsoon. The cold weather season is called the winter.

(C) Name the following:

(1) The two places in India is considered as the wettest place in the world.

Ans. Cherrapunji and Mawsynram.

(2) Years in which Brazil has experienced snowfall.

Ans. 1879, 1957and 1985.

(3) The driest part of India.

Ans. Jaisalmer, Rajasthan.

(4) The state in India which receives maximum rainfall during the retreating monsoon season.

Ans. Tamil Nadu

(5) Temperature in Kargil in winter.

Ans. -48°C.

(6) Temperature in Ganganagar, Rajasthan in the months of June.

Ans. 50°C.

(7) Name the hills responsible for heavy rainfall in Cherrapunji and Mawsynram.

Ans. Garo, Khasi and Jaintia hills.

(8) Name the winds which provide rainfall to the Tamil Nadu coast.

Ans. North East Monsoon winds.

(9) Name the state to receive rain first in India.

Ans. Kerala.

(10) Name the four seasons of India as per Indian meteorological department.

Ans. The four seasons of India as per Indian meteorological department the hot weather season (Summer), the season of rainfall (Monsoon), the season of retreating monsoon and the cold weather season (Winter).

Q.4. Mark the following on the map with the given information:

(1) Outline Map of Brazil.

(i) Winds bringing rainfall to Brazil or North East and South East Trade winds.

(ii) Drought Quadrilateral or Rainshadow region in Brazil.

(2) Outline Map of India.

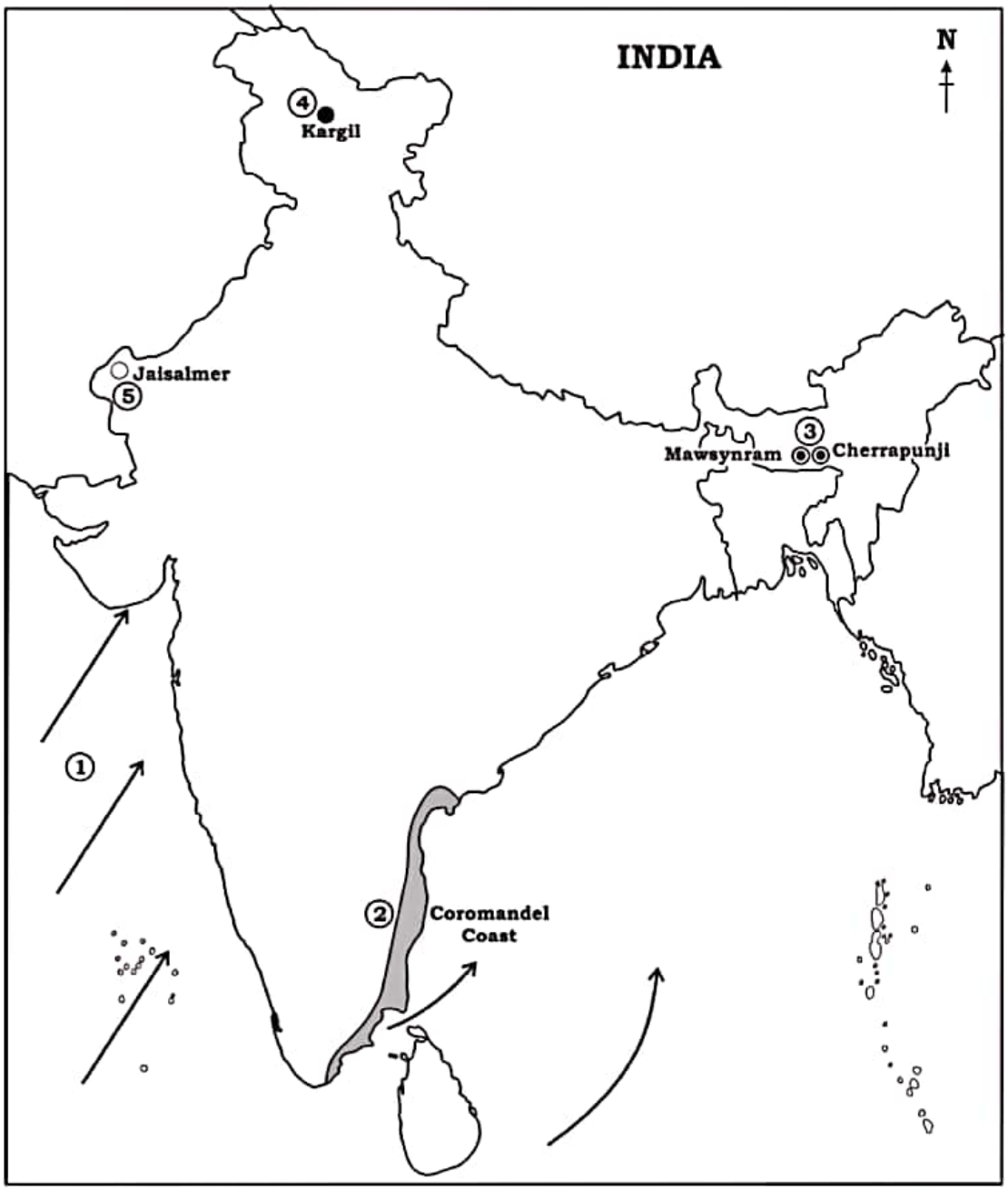
(i) Southwest Monsoon winds or winds bringing rainfall to most parts of India.

(ii) Coromandel Coast.

(iii) Cherrapunji and Mawsynram

(iv) Kargil or place recording lowest temperature in India.

(v) Jaisalmer or place recording lowest rainfall in India.



1. Southwest Monsoon winds **OR** winds bringing rainfall to most parts of India.
2. Coromandel Coast
3. Cherrapunji and Mawsynram
4. Kargil **OR** place recording lowest temperature in India.
5. Jaisalmer **OR** place recording lowest rainfall in India.

Q.5. Give Geographical Reasons:

***(1) The north-eastern part of Brazilian Highlands receives very less rainfall.**

Ans.

(i) Brazil gets rainfall from the South-East Trade Winds and the North-East Trade Winds.

(ii) Parts of the Brazilian Highlands extend upto the northern coast.

(iii) The Escarpments act as an obstruction to the winds coming from the sea and cause orographic type of rainfall in the coastal region.

(iv) Beyond the Highlands, the effect of these winds gets reduced. As a result, the rainfall is minimal.

(v) Thus the North Eastern part of Brazilian highlands receives less rainfall. This rain shadow region is also called as 'Drought Quadrilateral'.

***(2) Snowfall doesn't always occur in Brazil.**

Ans.

(i) Because of the vast latitudinal extent of Brazil, it experiences wide range of climatic variations. Near the equator it is hot, while temperate type of climate is found near Tropic of Capricorn.

(ii) Considering the temperatures in Brazil, the northern part of Brazil is hot while the temperatures in the southern part are comparatively lower.

(iii) It generally snows in those areas lying in the temperate or polar regions or in the mountainous regions of very high altitude.

(iv) Snowfall does occur but is only confined to higher elevations in the southern states of Rio Grande Do Sul, Parana and Santa Catarina.

(v) Most part of the country lies in the tropical zone which experiences a hot and humid climate.

(vi) So snowfall doesn't always occur in Brazil and is considered a rare phenomenon.

***(3) Convectional type of rainfall is not prominent in India.**

Ans.

(i) Convectional rains are a feature of the equatorial regions.

(ii) Due to the intense heat here the air expands and rises upwards. There is high proportion of moisture present in the air. As the air goes upwards it cools down, condensation occurs and clouds are formed. This leads to convectional rains every day.

(iii) The equator passes through the northern part of Brazil so the northern part of Brazil lies in the equatorial region and experiences such type of rainfall.

(iv) India is a tropical country and receives orographic rain. So convectional type of rainfall is not prominent in India.

***(4) Tropical cyclones occur rarely in Brazil.**

Ans.

(i) In the coastal regions of Brazil near the equator in Brazil, differences in temperatures are negligible.

(ii) The winds move in the vertical direction in this region.

(iii) Similarly, the convergence zone of the trade winds is weak here. As a result, cyclones are not formed.

(iv) That is why tropical cyclones occur rarely in Brazil.

***(5) There is not much difference in the range of temperature in Manaus.**

Ans.

(i) Manaus is located to the north of Brazil and lies close to the equator.

(ii) This region receives perpendicular rays of the sun throughout the year.

(iii) It also receives convectional type of rainfall every day.

(iv) So the climate is hot and humid throughout the year.

(v) There is not much difference in the maximum and minimum temperatures.

(vi) So there is not much difference in the range of temperature in Manaus.

***(6) India receives precipitation from the North East Monsoon Winds too.**

Ans.

(i) The South West Monsoon Winds return from the Himalayan ranges and the retreating monsoon season starts in India..

(ii) While blowing from the north east towards the Indian Ocean these winds bring rainfall to some parts of the peninsula.

(iii) These are the North East Monsoon Winds.

(iv) They pick up moisture from over the Bay of Bengal and thus bring rain to the eastern coast.

(v) Thus India receives precipitation from the North East Monsoon Winds too.

***(7) Shillong get less than 1000 mm of rainfall annually, whereas Cherrapunji / Mawsynram which is nearby gets over 11000 mm of rainfall annually.** *(Find out, Textbook Page No. 31)*

Ans.

(i) Cherrapunji/ Mawsynram lies on the windward side of the Khasi hills and receives rainfall from the South West Monsoon Winds.

(ii) While Shillong lies on the leeward side of the Khasi hills, so they receive less rainfall being in the rain shadow area.

(8) In spite of the Aravalli hills, many parts of Rajasthan, Western Rajasthan do not receive much rainfall.

Ans.

(i) The Aravallis lie parallel to the Arabian Sea.

(ii) The winds bypass this region and no rain is shed.

(iii) As there are no mountain ranges that lie transversely across.

(iv) More over, this region is also on the leeward side where the South West Monsoon Bay of Bengal branch blows.

***Q.6 Observe the pictures given below and write brief description about them.**

(1) ***Refer fig. 4.6 (a) : Traffic Jam Due to Rainfall (Brazil) (Textbook Pg. 29)***
Refer fig. 4.6 (b) : Traffic Jam Due to Rainfall (India) (Textbook Pg. 29)

Ans. Fig. 4.6 (a) and 4.6 (b) shows the traffic congestion during heavy rains. Due to lack of proper drainage and heavy downpour the water gets accumulated disturbing the commuting system.

(2) ***Refer fig. 4.7 : Dry land in drought affected region (India) (Textbook Pg. 30)***
Refer fig. 4.12 : Drought Quadrilateral region (Brazil)
(Textbook Pg. 30)

Ans. Fig. 4.7 and 4.12 show the drought affected regions of India and Brazil respectively. Due to less amount of rainfall received in these regions the land has became dry and cannot be cultivated.

(3) ***Refer fig. 4.8 : Snowfall (India) (Textbook Pg. 30)***

Ans. Fig. 4.8 shows snow fall during winter season in the northern parts of India.

(4) ***Refer fig. 4.9 : Rainfall (Brazil) (Textbook Pg. 30)***

Ans. Fig. 4.9 shows heavy rainfall in the Brazillian rainforest region.

(5) ***Refer fig. 4.10 : Deforestation (Brazil) (Textbook Pg. 30)***

Ans. Fig. 4.10 shows the trees being cut down to bring land under cultivation. Deforestation is a major issue in Brazil.

(6) ***Refer fig. 4.11 : Well- A source of water (India) (Textbook Pg. 30)***

Ans. Fig. 4.11 shows a well from which water is used.

(7) ***Refer fig. 4.13 : Paddy farming (India) (Textbook Pg. 30)***

Ans. Fig. 4.12 shows paddy farming in India. The farmers are planting paddy. The water clogged fields are shown.

Q.7. Answer the following questions:

***(1) Describe in brief the changes occurring in the climatic conditions of India while going from south to north.**

Ans.

(i) India's climate is of 'monsoon' type. But there is diversity in climatic conditions of India due to the latitudinal location and altitude of the place.

(ii) As the Tropic of Cancer passes through the middle of India. India is considered to be in the tropical region.

(iii) The Tropic of Cancer divides the country into tropical region in the south and temperate region to the north.

(iv) Temperature increases towards the south as perpendicular sunrays are received upto the Tropic of Cancer and the average temperature is high throughout the year. Also humidity is higher in the south than north.

(v) In the north summers are very hot and winters are cool and dry.

(vi) In winter, temperature drop to –48ºC in Jammu and Kashmir and parts of mountainous regions of Himalayas, due to high altitude.

(vii) It rains heavily in the coastal regions and in the north east, due to orographic rainfall but the interior parts of the Deccan Plateau receive less rain as they lie in the rain shadow region.

(viii) The amount of rainfall keeps decreasing as we go from the south to the north.

***(2) Explain the importance of Himalayas and the Indian Ocean with respect to the climate of India.**

Ans.

(i) The Indian Ocean and the Himalayan ranges exert a great influence on the climate of India and the origin of monsoons.

(ii) Because of high temperatures in summers, low pressure area develops in Punjab Plains and the Thar Desert of Rajasthan.

(iii) At the same time there is a high pressure region developed over the Indian Ocean.

(iv) This attracts winds and they start blowing from over the Indian Ocean towards mainland India.

(v) These are moisture–laden winds which bring rainfall to India.

(vi) These winds move towards the Himalayas and due to the natural obstruction of the Himalayas, orographic rain occurs.

(vii) Later these winds retreat from the Himalayas and move from the north east towards the Indian Ocean and brings rain to some parts of the Peninsula.

(viii) Also the very cold winds blowing from the north are obstructed by the Himalayas and saves India from severe winters.

***(3) Discuss the factors affecting the climate of Brazil.**

Ans.

(i) Brazil experiences wide range of climatic variations due to its vast latitudinal extent, proximity to the equator, presence of the Atlantic Ocean and the Great Escarpment.

(ii) The northern part of Brazil near the equator is hot, while temperate type of climate is found near Tropic of Capricorn.

(iii) Brazil gets rainfall from the South-East Trade Winds and the North-East Trade Winds blowing from the Atlantic Ocean.

(iv) Convectional rainfall occurs in places near the equator. Amazon valley receives 1000 -2000 mm of rainfall.

(v) The Escarpments act as an obstruction to the winds coming from the sea and cause orographic type of rainfall in the coastal region which receive 1000 – 1200 mm rainfall.

(vi) Beyond the highlands, the effect of these winds gets reduced. As a result, the rainfall is minimal.

(vii) This region is a rainshadow region. This region is called 'Drought Quadrilateral'.

(viii) The equator passes through the northern part of Brazil so the temperature here is high. Average temperature of Amazon valley is 25° - 28°C. Climate is cooler in the highlands. While the temperatures in the southern part are comparatively lower.

(ix) In the coastal regions near the equator in Brazil, differences in temperatures are negligible. Because of the proximity to the sea, the coast experiences mild and humid climate.

(x) The winds move in the vertical direction in this region. Similarly, the convergence zone of the trade winds is weak here.

So the tropical cyclones are a rare phenomena here.

***(4) Compare the climates of Brazil and India.**

Ans.

	Climate of India	Climate of Brazil
(1)	India has a monsoon type of climate	Brazil has a tropical climate to the north and temperate climate to the south.
(2)	The southern part of India lies in the Tropics so the temperature is high in the south and comparatively low in the north. i.e. Temperature decreases from south to north.	The northern part of Brazil lies in the tropics so the temperature is high in the north and comparatively low in the south i.e. Temperature decreases from north to south.
(3)	India receives rain from the South West Monsoon Winds and the North East Monsoon Winds.	Brazil receives rain from the South East and North East Trade Winds.
(4)	It receives orographic rainfall.	It receives convectional and orographic type of rainfall.
(5)	The western part of Rajasthan, Gujarat and eastern side of the Western Ghats receive less rain.	The north eastern part of the Brazilian highlands is a rain shadow region.
(6)	Tropical cyclones are a frequent phenomena.	Tropical cyclones are a rare phenomena.

(5) What is Drought Quadrilateral?

Ans.

(i) Parts of the Brazilian highlands extend upto the northern coast.

(ii) The escarpments act as on obstruction to the winds coming from the sea and cause orographic type of rainfall in the coastal region.

(iii) Beyond the highlands, the effect of these winds gets reduced.

(iv) As a result, the rainfall is minimal. This region is a rainshadow region. This region is called 'Drought Quadrilateral'.

Make friends with maps! *(Textbook Page No. 25)*

1. Observe the given map below and answer the following questions.
(Refer to Textbook Page No. 25, Fig 4.1)

(a) Considering the isotherms of Brazil, what is the average range of temperature in Brazil?

Ans. Considering the isotherms of Brazil, the average range of temperature of Brazil is 10ºC (28ºC - 18ºC).

(b) In which area does it rain more?

Ans. It rains more in the northern and central part of Brazil. e.g. Amazon Valley.

(c) From which directions are winds flowing towards Brazil?

Ans. The winds are flowing from North East and South East directions.

(d) What could be the reason behind that?

Ans. These are permanent trade winds which flow from high pressure belt to the equatorial low pressure belt. Brazil being in the tropical zone, a low pressure area is created and wind start blowing from the ocean to the land.

(e) What could be the obstruction in the way of these winds?

Ans. The escarpments acts as obstruction in the way of the South East Trade Winds coming from the sea.

(f) Which type of rainfall will occur because of these winds?

Ans. Orographic rainfall will occur because of these winds.

(g) Correlate these winds and rainfall.

Ans. The escarpments act as an obstruction to the winds coming from the sea and cause orographic type of rainfall in the coastal region. Beyond the Highlands, the effect of these winds gets reduced. As a result, the rainfall is minimal.

(h) In which part of Brazil are the average temperatures low?

Ans. The average temperatures are low in the southern part of Brazil.

(i) Identify the rain-shadow area in Brazil. Describe its climatic characteristics.

Ans. North eastern part of Brazilian highlands is a rain shadow region. Beyond the highlands the effect of the South East Trade Winds gets reduced and the rainfall is minimal. Also, the temperature here is quite high. This rain shadow region is referred to as 'Drought Quadrilateral'.

(j) In which region do you find a higher temperature?

Ans. The northern part of Brazil has higher temperature.

(k) Considering the latitudinal extent of Brazil, where will you find temperate climate in Brazil?

Ans. The southern part of Brazil lying below 23 ½ºS latitude (Tropic of Capricorn) experiences temperate climate.

(l) Describe the winds blowing between 0° to 5° N and S zones.

Ans. The winds blowing between 0° to 5° N and S zones move in the vertical direction leading to convectional type of rain. The North East and South East Trade winds are very weak in this region.

(m) Which method has been used to show distribution in this map?

Ans. Isopleth method has been used to show distribution in this map.

2. Observe the given Map and answer the following questions.
(Refer to Textbook Page No. 26, Fig 4.3)

(a) Which region gets more than 4000 mm of rainfall ?

Ans. Western Ghats, Western Coasts of India and the northeastern region comprising Mawsynram, Cherrapunji and parts of Assam and Arunachal Pradesh gets more than 4000 mm of rainfall.

(b) Identify the regions with maximum and minimum temperatures?

Ans. Central and North Western parts of Peninsular Plateau and islands have high temperature. Hilly regions of north, northeast and South India have low temperature.

(c) In which direction is the temperature increasing?

Ans. The temperature is increasing towards the south.

(d) Identify the direction of the winds shown. What are they known as?

Ans. The winds shown are blowing from the south west to north east direction. These winds are called as Southwest Monsoon winds.

(e) Which winds are responsible for the rainfall in India ?

Ans. South West Monsoon Winds are responsible for rainfall in India.

(f) Some part of Rajasthan is under desert? What could be the reason for it?

Ans. The South West Monsoon Winds blow parallel Aravallis. As these moisture laden winds are not obstructed by the Aravallis it rains less here. So, Rajasthan is under desert.

(g) Draw the main parallel of latitude passing through India which affects its climate. (Refer to. Fig. 2.1)

Ans. Students are expected to draw the Tropic of Cancer.

(h) In which part of Peninsular India are semi-arid climatic conditions found and why?

Ans.

(i) The part of peninsular which have semi-arid climatic conditions are Central part of Peninsula Plateau comprising parts of central Maharashtra, Western Andhra Pradesh, Eastern Karnataka and Western Tamil Nadu. These regions lie on the leeward side of the Western Ghats and Eastern Ghats. It rains less here and rain shadow region is formed.

(ii) Some parts of Gujarat and Rajasthan are also semi-arid as the Aravallis lie parallel and do not obstruct the south west monsoon winds.

Give it a try *(Textbook Page No. 27)*

Considering the various factors affecting Brazil's climate, complete the table.

Ans.

	Regions	Climatic characteristics
(1)	Amazon Valley	The climate is generally hot and humid. It receives around 2000 mm of rainfall. The average range of temperature here is 25°C – 28°C.
(2)	Highlands	Hot and dry climate, low rainfall.
(3)	Pantanal	Warm and humid
(4)	North coastal region	Hot and humid climate. Rainfall between 1000 to 1200 mm.
(5)	South coastal region	Mild and humid climate.
(6)	Southernmost region of Brazil	Hot summers, cool winters and snowfall.

Use your brain power ! *(Textbook Page No. 29)*

(a) Group the months into seasons for a whole year according to the charts given.

Ans.

Seasons	India	Brazil
Summer	March to May	December to March
Winter	December to February	June to September

(b) Find out more about different ways of classification and the seasons. For example, what is summer?

Ans. Spring (February to April), Summer (April to June), Monsoon (June to Septmber), Autumn (October to November), Winter (December to March).

Colours of Both! *(Textbook Page No. 29)*

Considering the location extent and climatic conditions of both the countries, write months as per in the seasons.

Ans. Refer Use your brain power ! : Q. No. (a)

Give it a try *(Textbook Page No. 31)*

Considering the location, extent of Brazil and India, look for the differences in the elements of climate like temperature and rainfall as per direction. Write a short note on it.

Ans. Refer Pg. 47, Q. 7. Answer the following questions: Q. No. (4)

Give it a try *(Textbook Page No. 31)*

In which part of India are three crops grown in a year? How is this related to the rainfall over there?

Ans.

(i) Coastal areas of Tamil Nadu in India grow three crops in a year. This crop is taken during the retreating monsoon season.

(ii) The climate of Tamil Nadu is also favourable for coconut and rubber plantations.

(iii) The South West Monsoon Winds while blowing from North East towards the Indian Ocean brings rain to some parts of Peninsular India, Tamil Nadu being one of them.

ASSIGNMENT - 4

Time : 1 Hr. **Marks : 20**

Q.1. Choose the correct option and rewrite the complete answer: **(2)**

(1) The climate found near the Tropic of Capricorn is ..... .

(a) hot (b) humid (c) temperate (d) cold

(2) The ..... act as an obstruction to the winds coming from sea in Brazil.

(a) Himalayas (b) Escarpments (c) Andes (d) Western Ghats

Q.2. State whether right or wrong. Rewrite wrong sentences. **(2)**

(1) The fact that Brazil lies on the equator affects its climate in a big way.

(2) India faces tropical cyclones frequently.

Q.3. Name the following. **(2)**

(1) Years in which Brazil has experienced snowfall.

(2) Name the state to receive rain first in India.

(3) Name the hills responsible for heavy rainfall in Cherrapunji and Mawsynram.

(4) The driest part of India.

Q.4. Give Geographical Reasons: **(6)**

(1) The north-eastern part of Brazilian Highlands receives very less rainfall.

(2) Convectional type of rainfall is not prominent in India.

(3) There is not much difference in the range of temperature in Manaus.

Q.5. Answer the following questions: **(8)**

(1) Discuss the factors affecting the climate of Brazil.

(2) What is Drought Quadrilateral?

❖❖❖

5 Natural Vegetation & Wildlife

Points to Remember:

Brazil Vegetation

Brazil - Major Forest Types

- Equatorial Forests
- Tropical Grasslands
- Swampy Lands
- Hot Deciduous Forests
- Thorny Shrubs
- Temprate Grasslands

• Reason for Variation in Rainfall in Brazil	**Physiography**
• Types of forest in region where it rains throughout the year	**Evergreen forests**
• Types of forest in region where it rains during certain season	**grasses, short shrubs, thorny vegetation, etc.**
• Largest number of vegetation species are found in	**Brazil**
• Trees found in Brazil	**Pau Brasil, rubber, mahogany, rosewood and orchids**
• Rainforests of Brazil	**'Lungs of the world'**

India Vegetation

India-Major Forest Types

- Evergreen Forests
- Deciduous Forests
- Thorny Shrubs
- Himalayan Forests
- Coastal Forests

• The leaves of trees in Evergreen forests	**Broad and green**
• Type of wood of trees found in Evergreen forest	**hard, heavy and durable**
• Trees having hardwood which is heavy and durable	**Mahogany, rosewood, rubber**
• In regions the rainfall is between 1000 mm to 2000 mm	**Deciduous forests.**
• Trees found in Deciduous forest of India	**Teak, bamboo, banyan, peepal, etc.**
• Regions having less than 500 mm rainfall	**Thorny, Shrub like vegetation**
• Type of plants found in region having less than 500 mm rainfall	**Catechu, Acacia, Khejri, Aloe vera and Agave**
• Swampy areas, estuaries and lagoons	**Coastal type of vegetation**
• Coastal type of vegetation is called	**Mangroves or Sunderbans**
• The wood quality of coastal vegetation is	**Oily, light and durable**

Types of forest in Indian Himalayas (according to altitude)

Highest altitude	Medium altitude	Foot hills
Seasonaly flowering trees	Coniferous trees like pine, deodar, fir	(including both coniferous and deciduous type of forests)

Brazil Wildlife

- Swampy areas of the Pantanal — **Anacondas**
- Animals found in Brazil — **Guinea pigs, crocodiles, alligators, monkeys, pumas, leopards, etc.**
- Fish varieties in Seas — **Sword fish**
- Fish varieties in rivers — **Pink dolphins and Piranhas**
- Bird varieties include — **Condors, parrots and flamingoes**
- A bird which is huge in size and can fly high in sky — **Condors**
- Degradation of environment due to — **Illegal smuggling of animals, slash and burn agriculture (roka), deforestation, pollution etc.**

India Wildlife

- Animal found in Hot and humid forests — **Elephants**
- Swampy and marshy lands of Assam — **One horned rhinoceroses**
- Arid lands — **Wild ass and camels**
- Snow capped regions of Himalayas — **Snow leopards and yaks**
- Peninsular region — **Indian Bisons, deer, monkeys and antelopes**
- The only country in the world where Tigers and Lions are found — **India**
- Rivers, estuaries and coastal areas — **turtles, crocodiles and gavials (gharial).**
- Variety of birds in the forests and wetlands — **Peacocks, Indian bustard, Kingfishers, peasants, ducks, parakeets, cranes and pigeons.**
- Many species of wildlife are on the verge of extinction because of — **poaching, pollution and rapid deforestation.**
- Measure for protection of wildlife and forest in India — **Setting up of National Parks, wildlife sanctuaries, bird sanctuaries and biosphere reserves.**

MASTER KEY QUESTION SET – 5

Q.1. Choose the correct option and rewrite the complete answer:

(1) In Brazil, …….. varies due to physiography
(a) soil (b) rainfall
(c) agriculture (d) mineral availability

(2) In most parts of the …….. region, it rains throughout the year.
(a) temperate (b) tropical
(c) grasslands (d) equatorial

(3) As one moves away from the equator, …….. decreases.
(a) altitude (b) forest
(c) rainfall (d) snowfall

(4) The …….. forests are found where there is rainfall throughout the year.
(a) tropical (b) thorny
(c) evergreen (d) temperate

(5) Brazil has the/a …….. number of vegetation species in the world.
(a) moderate (b) largest
(c) low (d) smallest

(6) The rainforests are rightly called the ……..
(a) lungs of the world (b) limbs of the world
(c) heart of the world (d) brain of the world

(7) Highest biodiversity is found in ..... forests.
(a) thorny (b) deciduous
(c) evergreen (d) coastal

(8) In regions receiving rainfall between 1000 mm to 2000 mm in India, …….. forests are found.
(a) thorny (b) evergreen
(c) deciduous (d) tropical

(9) In Regions receiving less than 500 mm of rainfall that experience dry summers for a long time in India, …….. and shrub like vegetation is found.
(a) equatorial (b) evergreen
(c) grasslands (d) thorny

(10) In …….. areas, coastal type of vegetation is found
(a) peninsular (b) mountainous
(c) rocky (d) swampy

(11) Coastal type of vegetation is called as …….. in India
(a) bangar (b) sunderbans
(c) pantanal (d) terai

(12) The wood found in Sunderbans is ……., light and durable.
(a) dry (b) fragile
(c) oily (d) soft

(13) In areas located in …….. altitude of Himalayas, seasonly flowering trees are found.
(a) highest (b) lowest
(c) plains (d) medium

(14) In regions with …….. altitude of Himalayas, coniferous trees are found.
(a) high (b) low
(c) plains (d) medium

(15) At foothills of the Himalayas …….. forests are found.
(a) mixed (b) teak
(c) coniferous (d) pine

(16) The proportion of …….. trees is higher at the foothills of the Himalayas.
(a) sal (b) teak
(c) rosewood (d) pine

(17) A greater diversity of wildlife is found in …….. than any other country in the world.
(a) India (b) Russia
(c) Australia (d) Brazil

(18) In the swampy areas of pantanal, …….. are found.
(a) cobra (b) vipers
(c) huge anacondas (d) Indian python.

(19) Among fish varieties, …….. fish is found in seas of Brazil
(a) mackerel (b) king fish
(c) sword fish (d) scoliodon

(20) In Brazilian rivers, pink dolphins and …….. are found
(a) gold fish (b) piranhas
(c) king Fish (d) mackrels

(21) One of the major bird species found in Brazil includes ……..
(a) ostrich (b) flamingoes
(c) kiwi (d) duck

(22) Slash and burn agriculture is also called …… in Brazil.
(a) kumri (b) roka (roca)
(c) dry farming (d) bewar

(23) Hot and Humid forests are a home for …….. .
(a) tiger (b) elephants
(c) dogs (d) leopard

(24) One horned rhinoceroses are found in swampy and marshy lands of…… .
(a) Assam (b) Madhya Pradesh
(c) Telangana (d) Tamil Nadu

(25) Indian Bisons, deers, monkeys are found in the ……region.
(a) Himalayan (b) Western Ghats
(c) Peninsular (d) Deccan

(26) The only country where both Lions and Tigers are found is……
(a) Brazil (b) India
(c) Australia (d) America

Ans. *(1) rainfall (2) equatorial (3) rainfall (4) evergreen (5) largest (6) lungs of the world (7) evergreen (8) deciduous (9) thorny (10) swampy (11) sunderbans (12) oily (13) highest (14) medium (15) mixed (16) sal (17) Brazil (18) huge anacondas (19) sword fish (20) piranhas (21) flamingoes (22) roka (23) elephants (24) Assam (25) Peninsular (26) India*

Q.2. (A) Match the following:

*(I)	Column 'A'		Column 'B'
(1)	Evergreen Forests	(a)	Sundar trees
(2)	Deciduous forests	(b)	Pine
(3)	Coastal forests	(c)	Pau Brasil
(4)	Himalayan forests	(d)	Khejari
(5)	Thorny and bush type vegetation	(e)	Teak
		(f)	Orchid
		(g)	Sal

Ans. *(1 – c), (2 – e), (3 – a), (4 – b), (5 – d)*

(II)	Column 'A'		Column 'B'
(1)	Evergreen Forests	(a)	Major portion of Madhya Pradesh
(2)	Deciduous forests	(b)	Arunachal Pradesh
(3)	Thorny shrubs	(c)	Sundarbans
(4)	Himalayan forests	(d)	Western ghats
(5)	Coastal forests	(e)	Gujarat
		(f)	Cold desert in Jammu and Kashmir
		(g)	Hot desert in Rajasthan

Ans. *(1 – d), (2 – a), (3 – e), (4 – b), (5 – c)*

(III)	Column 'A'		Column 'B'
(1)	Equatorial forests	(a)	Caatinga
(2)	Grasslands forests	(b)	Pantanal
(3)	Swampy Lands	(c)	Pumpas
(4)	Hot deciduous forests	(d)	Amazon river Basin
(5)	Thorny shrubs	(e)	Escarpment
		(f)	Savanna
		(g)	Parana basin

Ans. *(1 – d), (2 – c), (3 – b), (4 – e), (5 – a)*

Q.2. (B) Identify the odd man out:

***(1) Forest type of Brazil**
(a) Thorny bush type vegetation
(b) Evergreen forests
(c) The Himalayan Forests
(d) Deciduous forests
Ans. (c) The Himalayan Forest

***(2) With reference to India**
(a) Mangrove forests
(b) Mediterranean forests
(c) Thorny bush-type vegetation
(d) Equatorial forests
Ans. (b) Mediterranean Forest

***(3) With reference to Fauna of Brazil.**
(a) Anaconda (b) Tamairin
(c) Red Panda (d) Lion
Ans. (c) Red Panda

***(4) With reference to flora in India.**
(a) Deodar (b) Anjan
(c) Orchid (d) Banyan
Ans. (c) Orchid

(5) With reference to fauna in Brazil.
(a) Anaconda (b) Tamairin (c) Tiger (d) Red panda
Ans. (d) Red Panda

(6) With reference to Fauna in India.
(a) Anaconda (b) Elephants (c) Lion (d) Tiger
Ans. (a) Anaconda

(7) With reference to Flora of Brazil.
(a) Pau Brazil (b) Rubber (c) Mahogany (d) Deodar
Ans. (d) Deodar

(8) With reference to Himalayan Forests.
(a) Seasonal flowering plants
(b) Orchids
(c) Pine
(d) Mixed Forests
Ans. (b) Orchids

(9) With reference to Birds found in Brazil.
(a) Condors (b) Flamingoes
(c) Macaws (d) Peacocks
Ans. (d) Peacock

(10) With reference to Birds found in India.
(a) Peacock (b) Kingfisher (c) Duck (d) Flamingoes.
Ans. (d) Flamingoes.

Q.3. (A) Answer in one sentence:

(1) Where does it rain throughout the year?
Ans. It rains throughout the year, in most parts of the equatorial region.

(2) As one moves away from the equator, does the rainfall increase?
Ans. No, the rainfall decreases as one moves away from the equator.

(3) Where are evergreen forests found?
Ans. Evergreen forests are found in the area where it rains throughout the year.

(4) What effect does rainfall have on vegetation?
Ans. As the rainfall decreases, the density of the vegetation reduces.

(5) What kind of vegetation is found in places of less rainfall?
Ans. Various types of grass, short shrubs and thorny vegetation is found in places of less rainfall.

(6) Where are the largest number of vegetation species found in the world?
Ans. Brazil has the largest number of vegetation species in the world.

(7) What kind of trees are found in Brazil?
Ans. Trees like Pau Brasil, rubber, mahogany, rosewood and variety of orchids are found in Brazil.

(8) Why are the evergreen forests called the lungs of the world?
Ans. Evergreen forests called the lungs of the world because they release large amount of oxygen in environment which decreases the amount of carbon dioxide.

(9) Decribe the leaves of trees found in evergreen forests?
Ans. The leaves of trees found in evergreen forests are broad and green.

(10) What is the quality of wood found in evergreen forests?
Ans. The wood found in evergreen forests is hard, heavy and durable.

(11) In which region are deciduous forests found?

Ans. Deciduous forests are found in regions receiving rainfall between 1000 mm to 2000 mm in India.

(12) Which trees are found in deciduous forests?

Ans. Trees like Teak, bamboo, banyan, peepal etc. are found in deciduous forest.

(13) Which regions experience dry summers for a long time in India?

Ans. Regions that receive less than 500 mm of rainfall experience dry summers for a long time in India.

(14) Which kind of vegetation is found in regions receiving less than 500 mm of rainfall?

Ans. Thorny or shrub like vegetation is found in regions receiving less than 500 mm of rainfall.

(15) How are the leaves of trees in the region where there is less than 500 mm of rainfall?

Ans. The leaves of trees are small in the region where there is less than 500 mm of rainfall.

(16) Name some plants found in regions having less than 500 mm of rainfall in India.

Ans. Catechu, acacia, khejri and a variety of cactus like aloevera and agave are found in regions having less than 500 mm of rainfall in India.

(17) Where is coastal vegetation found?

Ans. Coastal vegetation is found in swampy areas, estuaries and lagoons near coastal areas.

(18) What is coastal vegetation called in India?

Ans. Coastal vegetation is called mangroves or sunderbans in India.

(19) How is the wood of trees found in coastal vegetation?

Ans. The wood of trees found in coastal vegetation is oily, light and durable.

(20) How many types of forests are there in the Himalayas?

Ans. There are three types of forests in the Himalayas based on their altitude.

(21) Which kind of trees are found in regions of high altitude?

Ans. Seasonally flowering trees are found in regions of high altitude.

(22) Which type of trees are found in regions with medium altitude?

Ans. In regions with medium altitude, coniferous trees like pine, deodar and fir are found

(23) Where are mixed forests found?

Ans. Mixed forest are found at the foothills of the Himalayas.

(24) Where is greater diversity in wildlife found in the world?

Ans. A greater diversity in wildlife is found in Brazil than any other country in the world.

(25) Which animal is found in the swampy areas of the Pantanal?

Ans. Huge anacondas are found in the swampy areas of Pantanal.

(26) Which are the other animals found in Brazil?

Ans. Animals like guinea pigs, crocodiles, alligators, monkeys, pumas, leopards etc. are found in Brazil.

(27) Which is the main variety of fish found in The Brazilian sea?

Ans. Sword fish is mainly found in the Brazilian sea.

(28) Which varieties of fish are found in the rivers of Brazil?

Ans. Piranhas are found in the rivers of Brazil.

(29) What kind of birds are seen in the Brazilian sky?

Ans. Condors, parrots, macaws and flamingoes are found in the Brazilian skies.

(30) Why is degradation of environment happening Brazil?

Ans. Degradation of environment is happening in Brazil due to illegal smuggling of wild animals, slash and burn agriculture (roka), deforestation and pollution.

(31) Where are elephants found in India?

Ans. Elephants are found in hot and humid forests of India.

(32) Where are one horned rhinoceroses found?

Ans. One horned rhinoceroses are found in the swampy and marshy lands of Assam.

(33) Which animals are found in the arid lands of India?

Ans. Wild ass and camels are found in the arid lands of India.

(34) Which animal is found in the snow capped regions of Himalayas?

Ans. Snow leopards are found in the snow capped regions of the Himalayas.

(35) Which animals are found in the peninsular region of India?

Ans. Indian Bisons, deer, antelopes and monkeys are found in the peninsular region of India.

(36) Which is the only country where both Lions and Tigers are both found?

Ans. India is the only country where Lions and Tigers are both found.

(37) Where are turtles, crocodiles and gharials found in India?

Ans. Turtles, crocodiles and gharials are found in rivers, estuaries and coastal areas of India.

(38) Which birds are found in the forests and wetlands of India?

Ans. Birds like peacocks, Indian bustard, kingfishers, peasants, ducks, parakeet, cranes and pigeons are found in the forests and wetlands of India.

(39) What measures are taken by the Government of India for the protection of wildlife and forests of India?

Ans. The Government of India has set up a number of national parks, wildlife sanctuaries, bird sanctuaries and biosphere reserves for the protection of wildlife and forests in India.

Q.3. (B) Name the following:

(1) The region where it rains throughout the year.

Ans. Equatorial region.

(2) Name the forests which are found where it rains throughout the year.

Ans. Evergreen forests

(3) Kind of vegetation found in places of less rainfall.

Ans. Grass, short shrubs, thorny vegetation.

(4) Country where the largest number of vegetation species in the world is located.

Ans. Brazil

(5) Name the types of trees found in Brasil.

Ans. Pau Brasil, rubber, mahogany, rosewood and variety of orchids.

(6) What are the rainforests called?

Ans. 'The lungs of the world.'

(7) Trees found in deciduous forests?

Ans. Teak, bamboo, banyan, peepal

(8) Type of vegetation found in region having less than 500 mm of rainfall

Ans. Thorny and Shrub-like

(9) Name some plants found in regions having less than 500 mm of rainfall.

Ans. Catechu, acacia, khejri and varieties of cactus

(10) Kind of vegetation found in swampy areas.

Ans. Coastal type.

(11) Another name of coastal type of vegetation in India.

Ans. Mangroves or Sunderbans

(12) Kind of trees found in forests located on higher altitudes in Himalayas.

Ans. Seasonally flowering trees.

(13) Kind of trees which are grown in forests located on medium altitudes in Himalayas.

Ans. Coniferous trees like Pine, Deodar, Fir.

(14) Region where mixed forests are found in Himalayas.

Ans. Foothills of Himalayas

(15) Animal found in the swampy areas of Pantanal?

Ans. Huge anacondas.

(16) Any two varieties of animals found in Brazil.

Ans. Guinea pigs, crocodiles.

(17) Kind of fishes found in seas of Brazil.

Ans. Sword Fish.

(18) Fish varieties found in the rivers of Brazil.

Ans. Pink Dolphins and Piranhas.

(19) Any two species of birds found in Brazil?

Ans. Condors, different types of parrots, macaws.

(20) Causes for degradation of environment.

Ans. Illegal smuggling of wild animals, roka, deforestation and pollution

(21) Region where Elephants are found in India.

Ans. Hot and humid forests

(22) Animal which is found in the swampy and marshy lands of Assam.

Ans. One horned rhinoceroses

(23) Animals which are found in arid lands of India.

Ans. Wild ass and camels.

(24) Animals which are found in the snowcapped mountain of Himalayas?

Ans. Yaks and Snow Leopards.

(25) Which animals are found in the peninsular region of India?

Ans. Indian Bisons, deer, antelopes and monkeys.

(26) Which is the only country where both Lion and Tigers are found?

Ans. India.

(27) Animals found in rivers, estuaries and coastal areas of India.

Ans. Turtles, crocodiles and garials.

(28) What has Government of India set up to protect wildlife?

Ans. National parks, bird sanctuaries, wildlife sanctuaries and biosphere reserves.

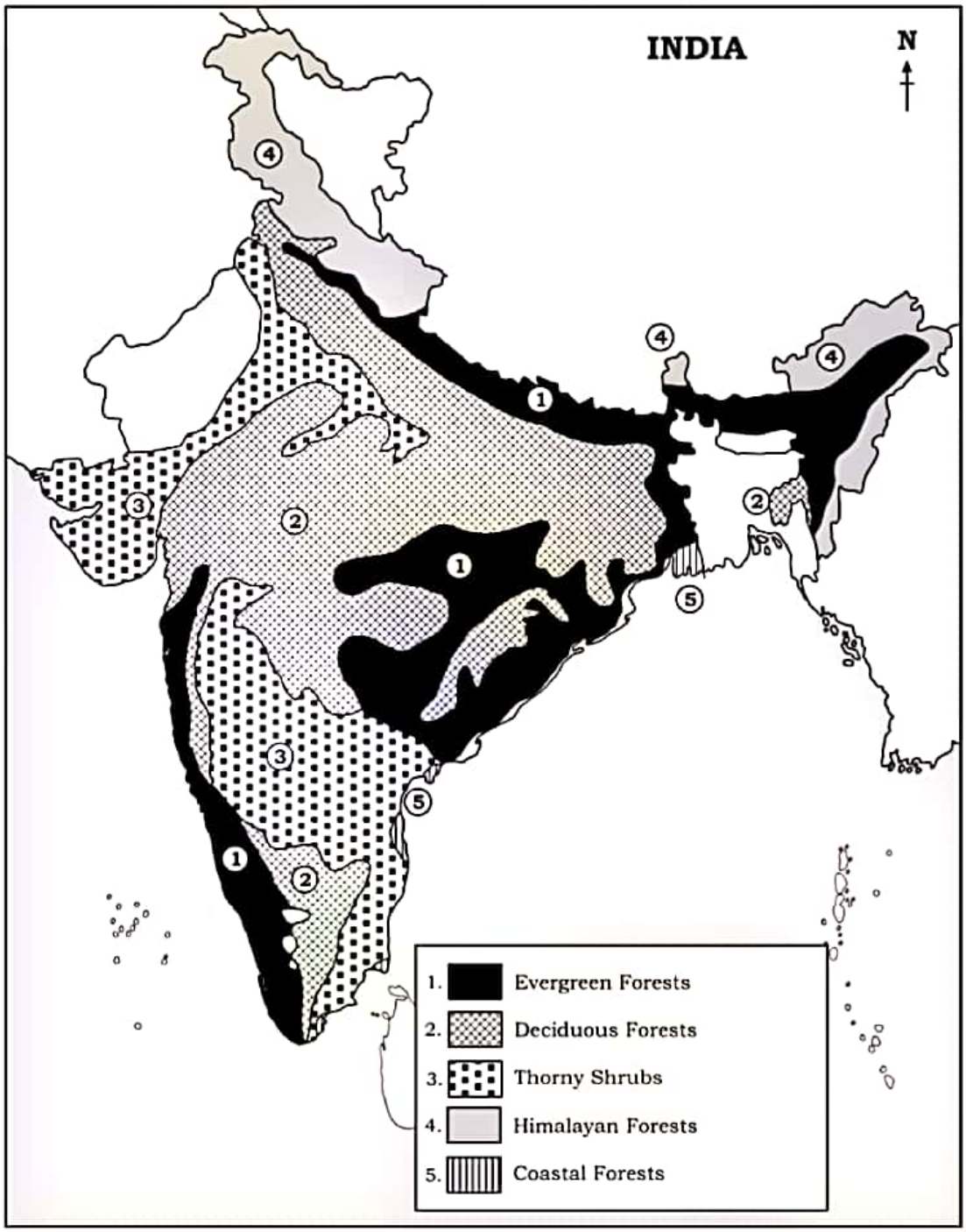
(29) National animal of India.

Ans. Tiger.

Q.4. (A) Mark the following on the map of India with the given information:

(1) (a) Evergreen forests (b) Deciduous forest (c) Thorny shrubs (d) Himalayan Forests (e) Coastal Forests

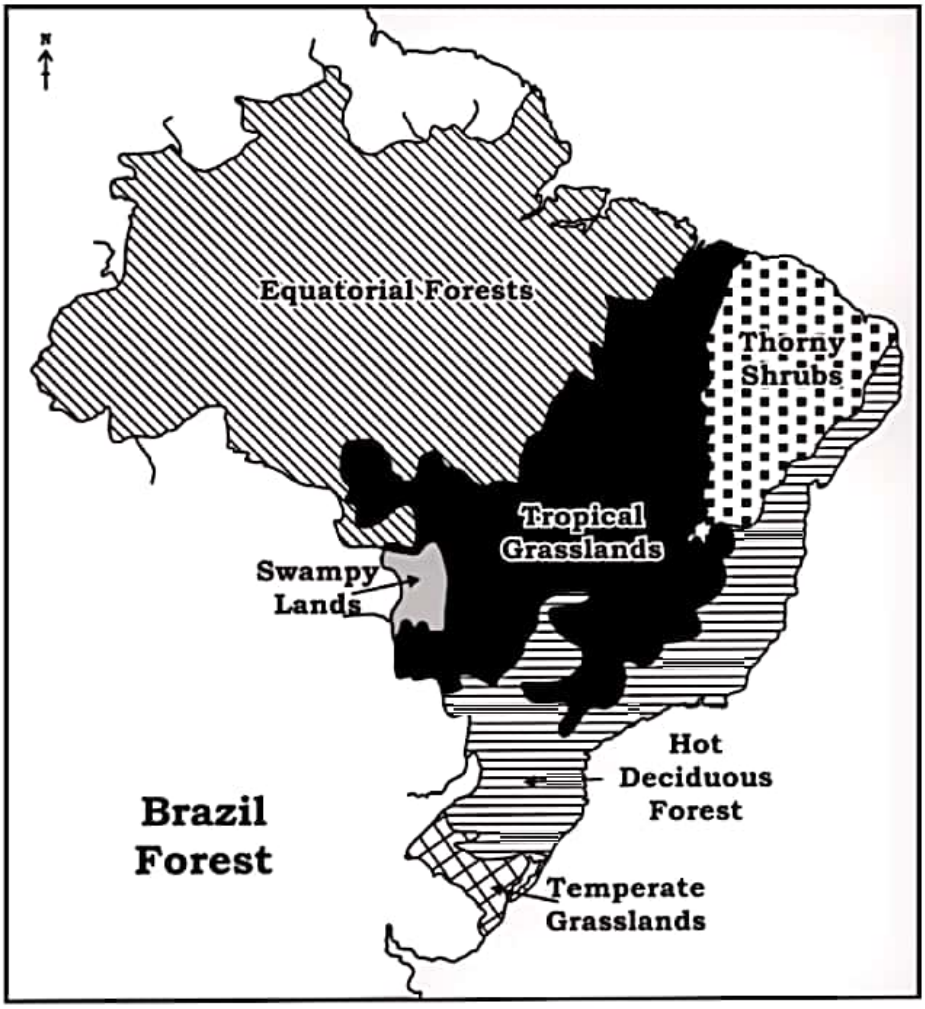
Ans.

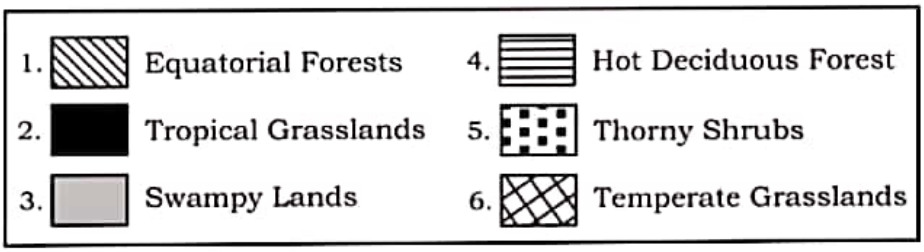


(2) Mark the following on the map of Brazil with the given information:

(1) Equatorial forests (2) Tropical grasslands (3) Swampy lands
(4) Hot deciduous forest (5) Thorny shrubs (6) Temperate grasslands

Ans.

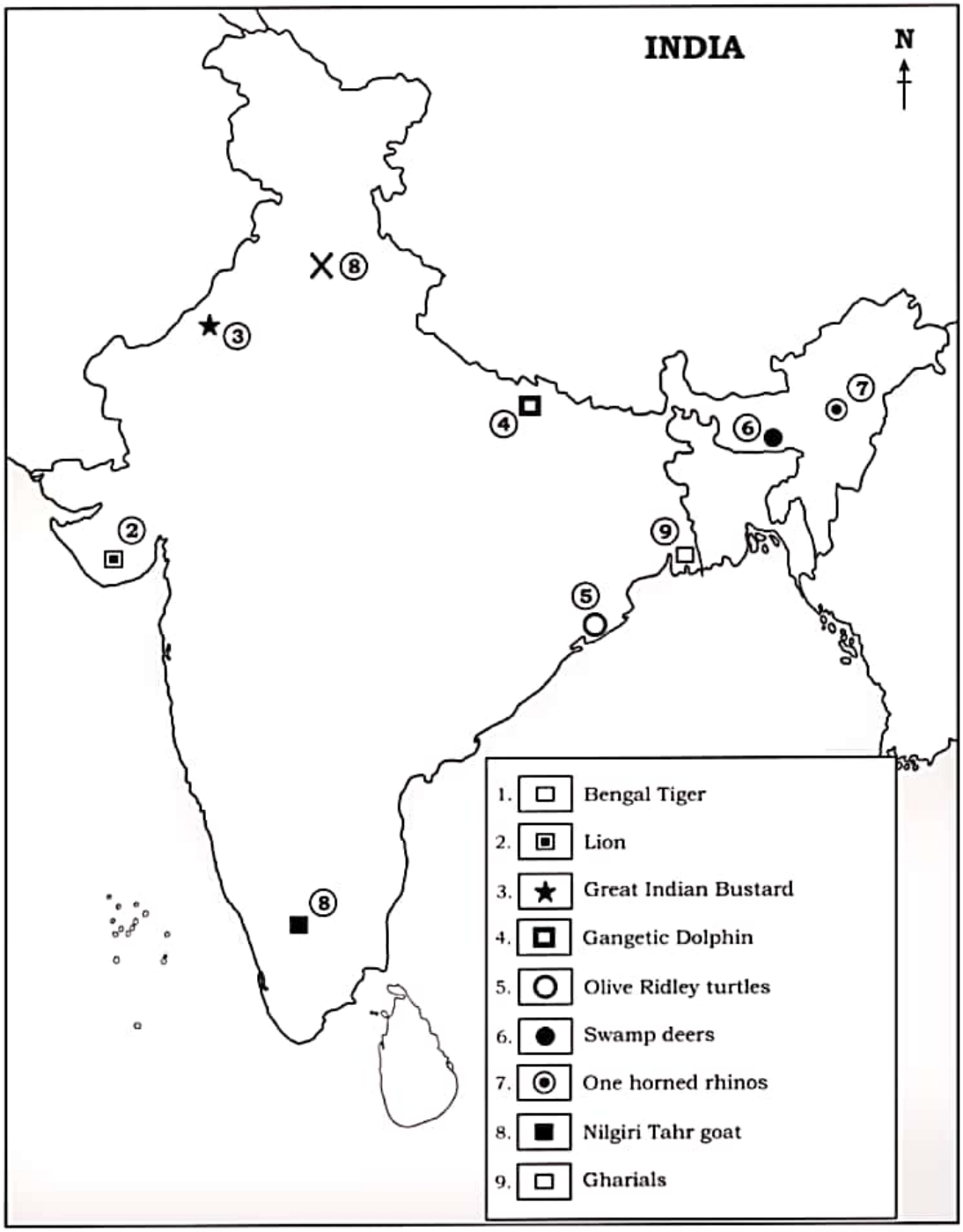




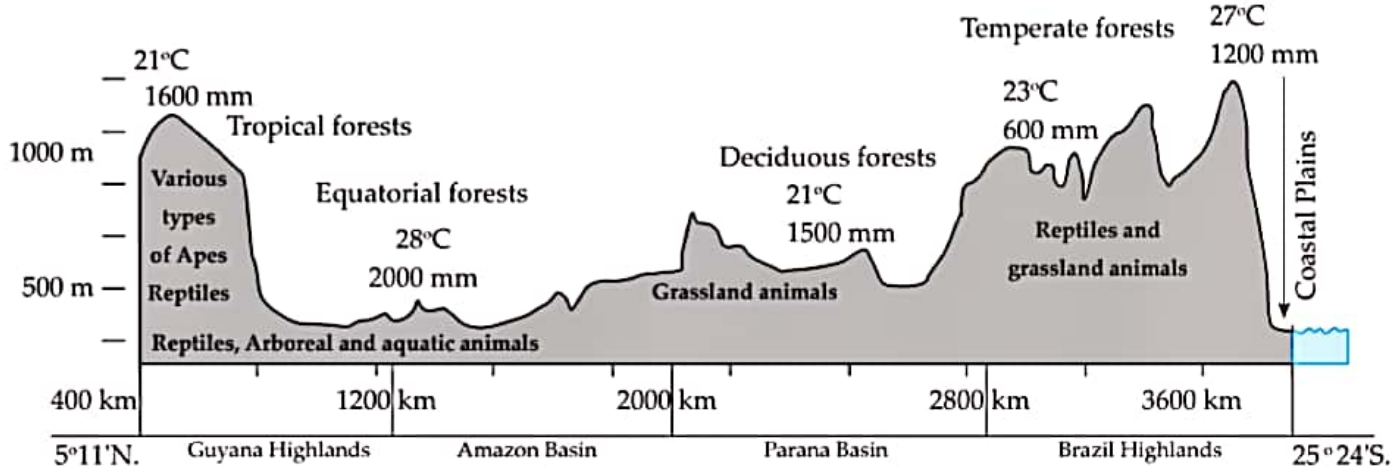
(3) Mark the following on the map of India with the given information:

(1)	Bengal Tiger	(2)	Lion	(3)	Great Indian Bustard
(4)	Gangetic Dolphin	(5)	Olive Ridley turtles	(6)	Swamp deers
(7)	One horned rhinos	(8)	Nilgiri Tahr goat	(8)	Gharials

Ans.



Q. 4. (B) Answer the following questions on the basis of map given:



(1) How much mm of rainfall does Tropical forests have?

Ans. Tropical forests receives rainfall of 1600 mm.

(2) How much rainfall does equatorial forests receive?

Ans. Equatorial forests receive 2000 mm of rainfall.

(3) Name the types of forests shown in figure.

Ans. Tropical forest, Equatorial forest, Deciduous forests and Temperate forests are shown in the above figure.

(4) Where are tropical and equatorial forests found in Brazil?

Ans. Tropical and equatorial forests are found in Guyana Highlands and Amazon basin respectively.

(5) Where are deciduous forests and temperate forests found in Brazil?

Ans. Deciduous forests and Temperate forests found in Parana Basin and Brazilian Highlands respectively.

(6) What kind of wildlife is seen in Brazilian Highlands?

Ans. Reptiles and grassland animals are seen in Brazilian Highlands.

Q. 5. Give geographical reasons:

***(1) The northern part of Brazil is covered with dense forests.**

Ans.

(i) The northern part of Brazil is the equatorial region.

(ii) In most parts of the equatorial region, it rains throughout the year. The region receives convectional type of rainfall.

(iii) In regions which receive rainfall throughout the year, the vegetation is dense.

Hence, the northern part of Brazil is covered with dense forests.

***(2) Vegetation is scarce in the high altitude of the Himalayas.**

Ans.

(i) As the altitude increases, the temperature decreases.

(ii) The climatic is very cold in the high altitudes. In Jammu and Kashmir and parts of Himalayas temperature drops to -40°C.

(iii) Very few species of plants can survive in such extreme conditions. Only seasonally flowering trees are found at higher altitudes.

Hence, Vegetation is scarce in the high altitude of the Himalayas.

***(3) A wide variety of species of insects is found in Brazil.**

Ans.

(i) Evergreen forests are found in Brazil.

(ii) A greater diversity in wildlife is found in Brazil compared to any other country in the world.

(iii) Due to heavy rainfall and swampy regions, it serves as a favourable ground for insects to breed.

(iv) Hence, millions of insect varieties are found in Brazil.

***(4) Wild life in India is decreasing day by day.**

Ans.

(i) Wildlife in India is decreasing day by day because of poaching, pollution and rapidly occurring deforestation.

(ii) Expansion of cities to accommodate the growing population is leading to cutting down of the valuable forests which leads to the loss of habitat of wildlife.

(iii) Also the problem of pollution has become severe due to urbanisation. Various types of pollution have threatened the lives of many of the species.

(iv) Smuggling of wild animals, poaching endangered species etc. have also led to loss of wildlife in India.

***(5) Like India, there is a need for conservation of forests in Brazil too.**

Ans.

(i) Wildlife in both India and Brazil are decreasing due to illegal smuggling of wild animals, slash and burn agriculture (roka), deforestation, pollution etc.

(ii) Various types of pollution in both the countries have threatened the lives of many of the species.

(iii) It is important to conserve the biodiversity for everyone's benefit and for the benefit of future generations.

Hence there is a need for conservation of forests in both Brazil and India.

(6) Thorny and shrub-like vegetation is found in regions where there is less or no rainfall.

Ans.

(i) The regions where there is less or no rainfall have a hot and dry climate.

(ii) The soils in these regions are also rocky and dry.

(iii) Water evaporation in leaves is more since the surface area of exposure is more than that of thorns.

(iv) Hence, thorny and shrub-like vegetation is found in regions where there is less or no rainfall to conserve water.

(7) The Brazilian rainforests are called the 'lungs of the world'.

Ans.

(i) The evergreen rainforests of Brazil, release a large amount of oxygen in the environment.

(ii) This helps to reduce carbon dioxide levels.

(iii) Therefore, these rainforests are rightly called the 'lungs of the world'.

Q. 6. Answer in short :

(1) Differentiate between the forest types of Brazil and India.

Ans.

	Forest type of Brazil	Forest type of India
(1)	Brazil is extensively covered by Equatorial Rainforest due to the equatorial climate, ample sunlight and heavy rainfall.	India is extensively covered by Deciduous forest as major portion of India receives rainfall between 1000-2000 mm.
	As there are no tall and long extending mountains in Brazil, Himalayan type forests are not found here.	Owing to the presence of Himalayas, Himalayan type forests are found in North and North-East of India that are classified on the basis of attitude.
	Pantanal which is one of the largest wetlands in the world is also referred to as a Swampy Land which is located to the South Western part of Brazil.	Coastal forests are also called as Sunderbans in India. It is mainly found along the Eastern Coast of India.
	Thorny shrubs are found to the North Western part of Brazilian which is also considered to be a Drought Quadrilateral.	Thorny shrubs are found in India receiving less than 500 mm of rainfall. It is majorly found in Gujarat, Rajasthan, rain shadow region of Western Ghats etc.

(2) Correlate Wildlife and Natural Vegetation in India and Brazil.

Ans.

(i) Wildlife in any area depends upon the natural vegetation found in that region. Hence, the habitat of every animal is unique.

(ii) Marshy areas are a favourable habitat for huge anacondas, crocodiles, alligators. Hence, these animals are found extensively in the swampy lands of Pantanal and Equatorial Rainforests.

(iii) Savanna (Tropical Grasslands) is a favoured site for millions of insect varieties. Hence different birds that thrive upon these insects for food are found here.

(iv) Elephants thrive in the hot and humid forests. One-horned rhinoceroses are found in the swampy and marshy lands of Assam.

(v) Also, turtiles, crocodiles, gavials (gharials) are found in the rivers, estuaries and coastal areas.

(3) What environmental issues are faced by Brazil and India?

Ans.

(i) Degradation of environment is happening in Brazil due to illegal smuggling of wild animals, slash and burn agriculture (roka), deforestation, pollution etc.

(ii) Due to these problems, many endemic species are on the verge of extinction.

(iii) India too faces environmental issues such as poaching, pollution and the fast spreading deforestation.

(iv) Many species of wildlife are on the verge of extinction in India.

(4) What environmental issues are faced by Brazil and India?

Ans.

(i) Degradation of environment is happening in Brazil due to illegal smuggling of wild animals, slash and burn agriculture (Roka), deforestation, pollution etc.

(ii) Due to these problems, many endemic species are on the verge of extinction.

(iii) India too faces environmental issues such as poaching, pollution and the fast spreading deforestation.

(iv) Many species of wildlife are on the verge of extinction in India.

(5) What are the major causes of degradation of forest in Brazil and India?

Ans.

(i) Forests are being cut down as more area is required to expand the cities. Hence rapid urbanisation is one of the reasons for degradation of forest.

(ii) To ensure continuous food supply to meet the needs of the ever increasing population, more and more area needs to be brought under agriculture. For the expansion of agricultural land, forest areas are being cut down.

(iii) In both India and Brazil, forests are being cut down for firewood and for other domestic needs.

(iv) Slash and Burn agriculture which is also called as Roka in Brazil and Jhum in India is responsible for deforestation.

(v) Apart from all the above reasons, forest fire, pollution, overgrazing etc. is also responsible for degradation of forests.

(6) Why does the deciduous type vegetation occupy most of India?

Ans.

(i) Vegetation in a region is affected by the climate and rainfall of the region.

(ii) India lies in the tropical zone and it has a monsoon type climate.

(iii) India experiences that climate throughout the year and also a major portion of India receives rainfall between 1000-2000 mm. This rainfall is seasonal in nature.

(iv) Thus, deciduous forests thrive well in this condition. Deciduous forests shed their leaves during summer so that water is not lost due to evaporation.

(v) Teak, Bamboo, Banyan, Peepal etc. are the trees found in deciduous forest of India.

***Q.7. On the basis of the information given in the chapter, figures and maps, complete the table below:**

Ans.

Sr. No.	Type of forest	Characteristics	Regions in India	Regions in Brazil
(1)	Tropical Forests	Broad-leaved evergreen trees	Andaman and Nicobar Islands, the Western Ghats.	Amazon basin
(2)	Semi arid thorny vegetation	1. Thorny trees and bushes. 2. Leaves are modified into thorns to minimise evaporation.	Gujarat, Rajasthan, Parts of Madhya Pradesh and Uttar Pradesh.	North-Eastern part of Brazil.
(3)	Savannah	Scanty bushes and shrub like trees and rain resistant grass.	Most of the plateau of peninsula India.	Brazilian Highland
(4)	Tropical semi-deciduous	Mixed type vegetation	Central India and South India.	South Eastern Brazil
(5)	Grasslands	Grassland region like the Pampas of Argentina	Foothills of Shiwalik hills and Assam	Southern Brazil

Q. 8. Answer the following in detail:

***(1) What are the major causes of degradation of forests in Brazil and in India?**

Ans.

(i) Many species of wildlife are on the verge of extinction from India because of poaching, pollution and rapidly occurring deforestation.

(ii) E.g. Degradation of environment is happening due to illegal smuggling of wild animals, slash and burn agriculture (roka), deforestation, pollution, etc.

(2) Write a note on Brazilian Vegetation.

Ans.

(i) In Brazil, rainfall varies due to physiography. In most parts of the equatorial region, it rains throughout the year.

(ii) As one moves away from the equator, the number of rainy days as well as amount of rainfall reduces.

(iii) This affects the life cycle of the vegetation too.

(iv) Evergreen forests are found in the area where it rains throughout the year.

(v) In regions which receive rainfall only during certain seasons, the density of the vegetation reduces.

(vi) Instead of forests, various types of grass, short shrubs, thorny vegetation, etc. are found.

(vii) Brazil has the largest number of vegetation species in the world.

(viii) This includes evergreen vegetation, semi-evergreen, arid, etc.

(ix) One finds trees like Pau Brasil, rubber, mahogany, rosewood and a variety of orchids.

(3) Write a note on wildlife of Brazil

Ans.

(i) A greater diversity in wildlife is found in Brazil than any other country in the world.

(ii) In the swampy areas of the Pantanal, huge anacondas are found.

(iii)) In Brazil, guinea pigs, crocodiles, alligators, monkeys, pumas, leopards, etc are found.

(iv) Among the fish varieties, mainly swordfish are found in the seas, while pink dolphins and piranhas are found in the rivers .

(v) Condors which are huge in size and fly high in the sky, various types of parrots, macaws, and flamingoes are the major birds found here.

(vi) Millions of insect varieties are also found here.

(4) Write a note on wildlife of India.

Ans.

(i) India is also a Mega-diverse country in terms of wildlife there are many species of wildlife in India.

(ii) Elephants are found in hot and humid forests. One-horned rhinoceroses are found in swampy and marshy lands of Assam.

(iii) Wild ass and camels are found in arid lands. snow leopards and yaks are found in the Snow-capped regions of Himalayas.

(iv) Indian Bisons, deer, antelopes and monkeys are found in the Peninsular region.

(v) India is the only country in the world where both tigers and lions are found.

(vi) Rivers, estuaries and coastal areas are homes of many turtles, crocodiles and gavials (gharial).

(vii) The forests and wetlands are the shelters of variety of birds like peacocks, indian bustard, kingfishers, peasants, ducks, parakeets, cranes and pigeons.

Activity *(Textbook Page No. 32)*

(Refer to Textbook Page No. 32, Fig 5.1)

Observe the images given below and discuss on the basis of the following points and answer the following questions:

(i) Can you tell the names of the plants/trees shown in the image?

Ans. Caatinga, Coffee, Teak, Rufous Bellied thrush, Leopard, Anaconda.

(ii) Where have you seen these plants before?

Ans. Caatinga (cactus) is generally seen in low rainfall region of India. Coffee plantations are seen in hilly tracts of Karnataka, Kerala, Tamil Nadu. Teak trees are found in regions receiving 1000 to 2000 mm rainfall.

(iii) Name the fauna shown in the image.

Ans. Rufous Bellied thrush, Leopard, green Anaconda.

(iv) Where have you see them before?

Ans. On the internet and in movies.

(v) In which country do you find a greater diversity of vegetation? What is the reason behind it?

Ans. Brazil has a greater diversity of vegetation because of the variation in climatic conditions.

Make friends with maps! *(Textbook Page No. 33)*

Observe the map and answer the questions :

(Refer to Textbook Page No. 33, Fig 5.3)

(a) Which forests are found in western snow-capped regions?

Ans. Himalayan Forests are found in western snow-capped regions.

(b) On which coast do you mainly find the coastal vegetation?

Ans. The coastal vegetation is mainly found along the Eastern Coast.

(c) Which type of forests occupy maximum area in India ? Why?

Ans. Deciduous forests are found in the regions receiving rainfall between 1000 mm to 2000 mm Since most of India has rainfall in that range, deciduous forests dominate the Indian subcontinent.

(d) Where do you find thorny and shrub vegetation in India and why?

Ans. Semi arid areas of Gujarat, Rajasthan, Madhya Pradesh, Chhattisgarh, Uttar Pradesh Maharashtra, Karnataka, Andhra Pradesh, Tamil Nadu and Haryana are the places where thorny and shrub vegetation are found. The thorny forests are found in these regions as the rainfall is less than 500 mm.

Make friends with maps! *(Textbook Page No. 34)*

Observe the map and answer the questions :

(Refer to Textbook Page No. 34, Fig 5.4)

(a) Name the species shown on the map. Condor, Anaconda, Golden lion tamarin, macaw, etc.

Ans. Some of the major species shown on the map are Condor, Golden Lion Tamarin, Anaconda, Crocodile, Sward fish, Flamingoes etc.

(b) In which regions are these animals found? Why are their habitats found in these forests?

Ans.

(i) Equatorial forest region is home to Golden Lion Tamarin, Condor, Anaconda, etc. This is because the forest lie near the Amazon River and it receives rainfall throughout the year. The climate is hot and humid in the region.

(ii) Swampy lands of Pantanal is home to Anacondas and Crocodiles because it is favourable for the habitation.

(iii) Sword fish thrives near the South Atlantic Coast due to the extensive continental shelf.

(c) Classify the forest regions with reference to their extent.

Ans.

(i) Equatorial forests are found in the northern part of Brazil and it covers an extensive area.

(ii) Tropical Grasslands (Savanna) is the next major forest type occupying central part of Brazil.

(iii) Hot deciduous forests occupy the southern Brazil whereas Swampy Lands of Pantanal occupy a small part of Brazil in the south west.

(iv) Thorny shrubs occupy the north western part of Brazil owing to low rainfall whereas temperate grasslands (Pampas) occupy the South Brazil.

Colours of Both *(Textbook Page No. 34)*

(a) In which country do equatorial forests occupy a greater area ? What could be the reason behind it?

Ans. Equatorial forests occupy a greater area in Brazil. This is because the equator passes through Northern part of Brazil. Hence, the climate is generally hot throughout the year. Moreover, this region receives heavy rainfall throught the year.

(b) Which type of forests found in India are not found in Brazil?

Ans. Himalayan forests are found in India and not in Brazil.

(c) Which type of forests found in Brazil are found in India too?

Ans. Evergreen forests, Decicuous forests and Thorny Shrub type vegetation are found in both Brazil and India.

(d) In which country a greater diversity of vegetation is found? What is the reason behind it?

Ans. Brazil has a greater diversity of vegetation because of the equatorial climate, ample sunlight and heavy rainfall.

(e) Considering the climate and vegetation types, in which country will forest-based occupations flourish?

Ans. Forest based occupations will flourish more in Brazil.

Activity *(Textbook Page No. 35)*

(a) Correlate geographical conditions and the flora and fauna there.

Ans. There is close relationship between vegetation, animal life and climate. Vegetation of a region depends upon the climate. Vegetation not only provides food but is also the habitat for different animals. Animals are mobile. They move from place to place but each species can tolerate only a limited range of climatic conditions. Animals living in cold regions (e.g., tundra) have thick fur or kin to protect them from the intense cold or else they go into hibernation to avoid the bitter cold winter (e.g., Reindeer, wolf, fox, bear). Grasslands are more open and permit rapid movement of animals. Animals here have long legs and hard hooves for swift movement (e.g. zebra, deer, giraffe). Carnivores like lion, tiger are common. Animals living in deserts are light coloured with padded feet and double

eyelids (e.g., camel). In the tropical. Rainforests, animal adapt themselves to live among trees. For examples, monkeys have opposable thumbs to help them swing from tree to tree. Elephants can move through the thick forests by making their path path in the jungle.

(b) Do you know some other animals too ?

Ans. Asiatic Lion, Himalayan blue sheep, Domestic Yak etc.

(c) Show the habitats of tigers in India with their names on a map.

Ans. On Map

(d) Why is their habitat found in these regions?

Ans. Tigers are found in a variety of habitats, including tropical and sub tropical forests, evergreen forests, mangrove swamps and grasslands. In India, tigers are found in 19 states. All tigers are carnivores. Mostly a tiger's diet consists of large prey, such as pigs, deer, rhinos or elephant calves. Since these animals are found in forests. Tigers are found in these regions.

Give it a try *(Textbook Page No. 36)*

Tiger is the national animal of India. The number of tigers are decreasing day by day. The situation is similar to elephants. Find information about other such plants and animals. Find about their habitats. What should be done to conserve these animals? In which regions can this be done? Make a presentation of their possible places.

Ans.

Endangered Plants in India

Plant	Also known as	Region (Status)
Polygala irregularis	Milkwort	Gujarat (rare)
lotus corniculatus	Bird's foot	Gujarat (rare)
Amentotaxus assamica	Assam catkin yew	Arunachal Pradesh (threatened)
Psilotum nudum	Moa, skeleton, fork fern, and whick fern	Karnataka (rare)
Diospyros celibica	Ebony tree	Karnataka (threatened)
Actinodaphne lawsonii		Kerala (threatened)
Acacia planifrons	Umbrella tree, kudai vel (Tamil)	Tamil Nadu (rare)
Abutilon indicun	Indian mallow, thuthi (Tamil) and athibalaa (Sanskrit)	Tamil Nadu (rare)
Chlorophytum tuberosum	Musli	Tamil Nadu
Chlorophytum malabaricum	Malabar lily	Tamil Nadu (threatened)
Nymphaea tetragona		Jammu (endangered), Kashmir (threatened)
Belosynapsis vivioara	Spider wort	Madhya Pradesh (rare and threatened)
Colchicum luteum		Himachal Pradesh (rare and threatened)
Pterospermum retriculatum	Malayuram, Malavuram	Kerala (rare), Tamil Nadu (threatened)
Ceropegia odorata	Jeemikanda (Gujarat)	Gujarat, Melghat Tiger, Rajasthan and Salsette Islabd, (endangered)

Endangered Animals in India

Animal	Region
Indian Tiger	Bengal
Ganges Dolphin	Ganges
Gharial	Ganges/Chambal river
Indian Bustard	Gujarat, Maharashtra, Rajasthan
Indian Rhinoceros	North eastern part of Assam
Lion Tailed Macapue	Western ghats of southern India
Nilgiri Thar (wild sheep)	Western ghats
Sangai (Deer)	Manipur

Legal protection has to be provided to wild animals against hunting and commercial exploitation. Protected Areas, viz., National Parks, Sanctuaries, Conservation Reserves and Community Reserves covering important wildlife habitats have to createsd.

Use your brain power ! *(Textbook Page No. 36)*

Find out in which parts of India agricultural practices like the 'Roca' is found? By what names are they called?

Ans.

Slash and Burn Farming in India	
Name	**Regions**
Jhumming	Assam, Meghalaya, Mizoram and Nagaland
Pamlou	Manipur
Dipa	Bastar (Chhattisgarh) and Andaman & Nicobar Islands
Bewar or Dahiya	Madhya Pradesh
Podu or Penda	Andhra Pradesh
Pama Dabi or Koman or Bringa	Orissa
Kumara	Western Ghats
Valre or Waltre	South Eastern Rajasthan
Khi	Himalayan belt
Kuruwa	Jharkhand

ASSIGNMENT - 5

Time : 1 Hr. **Marks : 20**

Q.1. Choose the correct option and rewrite the complete answer: (2)

(1) One of the major bird species found in Brazil includes .....

(a) ostrich (b) flamingoes (c) Kiwi (d) Duck

(2) The proportion of ..... trees is higher at the foothills of the Himalayas.

(a) sal (b) teak (c) rosewood (d) pine

Q.2. Match the following: (2)

(I)	Column 'A'		Column 'B'
(1)	Evergreen Forests	(a)	Malabar coast, India
(2)	Deciduous forests	(b)	Amazon Basin
(3)	Coastal forests	(c)	Parana Basin
(4)	Himalayan forests	(d)	Brazilian Highlands
(5)	Temperate forests	(e)	Himalayan mountains
		(f)	Cold desert

Q.3. Identify the odd man out: (2)

(1) With reference to flora in India.

(a) Deodar (b) Anjan (c) Orchid (d) Banyan

(2) With reference to Himalayan Forests.

(a) Seasonal flowering plants (b) Orchids

(c) Pine (d) Mixed Forests

(3) With reference to Birds found in Brazil.

(a) Condors (b) Flamingoes (c) Macaws (d) Peacocks

(4) With reference to Birds found in India.

(a) Peacock (b) Kingfisher (c) Duck (d) Flamingoes.

Q.4. Answer in one sentence. (2)

(1) Which trees are found in deciduous forests?

(2) Which is the main variety of fish found in The Brazilian sea?

Q.5. Show the following animals on the outline map of India and answer the following: (2)

(1) Bengal Tiger (2) Gangetic Dolphin (3) Swamp deers (4) Nilgiri Tahr goat

Q.6. Give geographical reasons. (6)

(1) Vegetation is scarce in the high altitude of the Himalayas.

(2) Wild life in India is decreasing day by day.

Q. 7. Answer the following. (4)

(1) Write a note on Brazilian Vegetation.

(2) Write a note on wildlife of India.

6 Population

Points to Remember:

An important resource of any country.	**Population**
The qualitative aspects of a population are important for a nation's	**economic and social progress.**
The climate and physiography of India affect its	**population distribution.**
According to Census 2011, India's population is	**around 121 crores**
Second most populous country in the world.	**India**
Percentage of land area of the world occupied by India	**2.41%**
Percentage of world population residing in India	**17.5%**
As per 2011 Census, India's average population density	**382 persons per sq.km.**
India's, population distribution is	**uneven**
Factors that play and important role in population distribution	**physiography and climate**
Factors due to which human settlements have been established in some parts for many centuries.	**fertile land, plain land and availability of water,**
Reasons for a proportion of the population getting concentrated in a few places, like the northern plains of India, and a few major cities	**farming, industries and trade**
In mountainous hilly regions, dry desert areas, dense forest areas, population density is sparse due to	**inaccessibility, absence of facilities and tough life.**
The most populated country in the South American continent	**Brazil**
According to Census 2010, population of Brazil is	**19 crores**
Population wise Brazil ranks	**5th in the world**
With respect to land area too, Brazil ranks	**5th in the world**
Percentage of total land area of the world occupied by Brazil	**5.6%**
Percentage of world population residing in Brazil	**2.78%**
The density of population of Brazil is around	**23 persons per sq.km.**
The distribution of population in Brazil is	**uneven.**
Majority of the Brazilians are concentrated within 300 kilometers of the eastern coastal areas also called	**the coastal lowlands.**
Density of population in eastern coastal areas of Brazil is	**high, therefore agriculture and industries have flourished here**
The interior region of the Amazon Basin is	**very sparsely populated**
Settlements occur only in a few places in the Amazon basin due to	**unfavourable climate, heavy rainfall inaccessibility and dense forest**
Population in central and western Brazil	**less**
Density of population in the Brazilian Highlands	**moderate**
In India	**men outnumber women**

- In India for a few decades, we see fluctuations in **the sex ratio**
- There has been a slight increase in the sex ratio **after 1991**
- Sex ratio means **the number of females per 1000 males in a region.**
- The number of women has always been more than men **Brazil**
- The number of women has never been more than men **India**
- India has a higher propotion of youth and has higher **working population.**
- The graph that shows the age and sex of population is also known as **population pyramid.**
- Population pyramid is used to study **the age and sex related aspects of a region's population.**
- The rate of population growth is decreasing and may not increase in the next two decades in **Brazil.**
- The number of young people is more in **Both India and Brazil**
- The number of children is more in **India**
- The propotion of people in the age group above 80 years is more in **Brazil**
- In Brazil, the rate of growth of population has **reduced considerably.**
- From 2001 to 2011 India's population increased by **18.2 crores.**
- India's population growth rate has stabilized but it was higher till **1971.**
- India's population is still growing but growth rate is **declining**
- Increase in life expectancy is an indicator of **development of that society.**
- An increase in average life expectancy is due to **improvement in medical facilities, progress in medical field, access to nutritious food**
- The average number of years a person born in a country is expected to live. **Life expectancy**
- India's life expectancy was 41 years in 1960, but now, on an average Indians live for **68 years.**
- On an average Brazilians live for **75 years.**

Important for objective Questions

S.N.		India	Brazil
(1)	Total Population	121 crores (2011 census)	19 crores (2010 census)
(2)	Land Area of the world occupied	2.41%	5.6%
(3)	World population supported	17.5%	2.78%
(4)	World ranking with regard to population	second	fifth
(5)	World ranking with regard to area.	seventh	fifth
(6)	Population density	382 persons per sq.km.	23 persons per sq.km.
(7)	Sex Ratio in 2011	App. 940	App. 1080
(8)	Life expectancy in 2011	68 years	75 years
(9)	Literacy rate in 2016	72.2%	92.6%
(10)	Age structure	Propotion of youth is high	Propotion of aged people is high

(11)	Population growth rate	Declining growth rate but population is increasing	Declining growth rate but population may not increase in next to decades
(12)	Population record mentain by	Cenus of India	IGBE (I Brazilian Institute of Geography and Statistics

MASTER KEY QUESTION SET – 6

Q.1. Fill in the blanks choosing the most appropriate alternative.

(1) The ..... aspects of a population are important for a nation's economic and social progress.
(a) quantitative (b) qualitative
(c) measurable (d) calculable

(2) India is the ..... most populous country in the world.
(a) second (b) fifth
(c) seventh (d) sixth

(3) Due to farming, industries and trade, the proportion of the population got ..... in a few places.
(a) distributed (b) sparse
(c) concentrated (d) equal

(4) In mountainous / hilly regions, dry desert areas and densely forested areas, population density is ..... because of inaccessibility, absence of facilities and tough life.
(a) high (b) very high,
(c) sparse (d) moderate

(5) Brazil is the ..... populated country in the continent of South America.
(a) second most (b) third most
(c) fifth most (d) most

(6) With a population of around 19 crores, according to census 2010, Brazil ranks ..... in the world.
(a) 3rd (b) 5th
(c) 7th (d) 9th

(7) With respect to area, Brazil stands ..... in the world.
(a) 3rd (b) 5th
(c) 7th (d) 9th

(8) A majority of Brazilians have concentrated within 300 kilometers of the ..... .
(a) Guyana highlands (b) Amazon river,
(c) Eastern coastal areas (d) Pantanal wetlands

(9) The interior of the Amazon basin is ..... populated.
(a) densely (b) moderately
(c) highly (d) very sparsely

(10) The central and western parts of Brazil are / is ..... populated.
(a) densely (b) sparsely
(c) moderately (d) less

(11) The density of population in the ..... of Brazil is moderate.
(a) Amazon Basin (b) coastal lowlands
(c) highlands (d) forested areas

(12) In India, there has been a ..... in the sex ratio, after 1991.
(a) decrease (b) slight increase
(c) consistency (d) steep increase

(13) The proportion of ..... in India is more.
(a) middle-aged people (b) old people
(c) children (d) youth

(14) The rate of population growth is now ..... in India.
(a) increasing (b) declining
(c) stable (d) stagnant

(15) It is observed that Brazil's population may not increase in the next ..... decades.
(a) two (b) three
(c) four (d) five

(16) The eastern coastal areas of Brazil are also called the coastal ..... .
(a) lowlands (b) highlands
(c) ravines (d) badlands

(17) In most of the developing countries life expectancy is still less, but with socio economic development it is ..... .
(a) decreasing (b) increasing
(c) gradually declining (d) steeply increasing

Ans. *(1) qualitative (2) Second (3) concentrated (4) sparse (5) most (6) 5th (7) 5th (8) Eastern coastal areas (9) very sparsely (10) less (11) highlands (12) slight increase (13) youth (14) declining (15) two (16) lowlands (17) increasing*

Q.2. Match the columns:

Column 'A'	Column 'B'
(1) Coastal lowlands	(a) sparsely populated
(2) Amazon Basin interiors	(b) moderately populated
(3) Central and western part	(c) densely populated (within 300 kms. of the area)
(4) Highlands	(d) less populated

Ans. *(1 – c), (2 – a), (3 – d), (4 –b)*

Q.3. (A) Are the following sentences right or wrong? Correct the wrong ones.

***(1) Literacy Rate is higher in Brazil than India.**

Ans. *Right*

***(2) In Brazil, people prefer living in the south east as compared to the north east.**

Ans. *Right.*

***(3) The life expectancy of Indians is decreasing.**

Ans. *Wrong - The life expectancy of Indians is increasing.*

***(4) The north-western part of India is densely populated.**

Ans. *Wrong - The north-western part of India is sparsely populated.*

***(5) The western part of Brazil is densely populated.**

Ans. *Wrong - The western part of Brazil is sparsely populated.*

(6) India is the fifth most populous country in the world.

Ans. *Wrong - India is the second most populous country in the world.* ***OR*** *Brazil is the fifth most populous country in the world.*

(7) India's average population density is 832 persons per sq. km. as per the 2011 census.

Ans. *Wrong - India's average population density is 382 persons per sq. km. as per the 2011 census.*

(8) Brazil is the second most populous country in the World.

Ans. *Wrong - Brazil is the fifth most populous country in the world.*

(9) Brazil ranks fifth in the world with respect to area.

Ans. *Right.*

(10) The total population of Brazil is around 91 crores.

Ans. *Wrong - The total population of Brazil is around 19 crores.*

(11) In Brazil and India, population is evenly distributed.

Ans. *Wrong - In Brazil and India, population is unevenly distributed.*

(12) The central and western part of Brazil are less populated.

Ans. *Right.*

(13) The sex ratio of Brazil has been less than 1000 since centuries.

Ans. *Wrong - The sex ratio of Brazil has been more than 1000 since decades.*

(14) It is observed that in Brazil, the rate of population growth is increasing.

Ans. *Wrong - It is observed that in Brazil, the rate of population growth is declining.*

Q.3. (B) Answer in one or two sentence.

(1) According to census 2011, what is India's population and how much is its average population density?

Ans. According to census 2011 India's population is around 121 crores, and its average population density is 382 persons per sq. km.

(2) What percentage of the total land area of the world is occupied by India and Brazil?

Ans. India occupies only 2.41% of the land area of the world, whereas Brazil occupies 5.6% of the world's total land area.

(3) What is the difference in the percentage of the world population supported by India and Brazil ?

Ans. India supports 17.5% of the world's population, whereas Brazil support 2.78% of the world's total population. The difference is 14.72% (India has more than Brazil)

(4) According to census 2010, what is the total population of Brazil and what is its average population density?

Ans. According to census 2010, Brazil's total population is around 19 crores and its average population density is 23 persons per sq. km.

(5) What is sex ratio?

Ans. Sex ratio means, the number of females per 1000 males in a region.

(6) What is a population pyramid?

Ans. A population pyramid is a kind of graph which shows the age and sex of the population in a region.

(7) How is the population pyramid useful? State the uses of a population pyramid.

Ans. The population pyramid is used to study the age and sex related aspects of a region's population and we can know the number or percentage of various age groups of males and females in a country.

It also helps us to know the proportion of children, youth and old people in a country.

(8) What is life expectancy?

Ans. Life expectancy means the average number of years, a person born in a country, is expected to live.

***Q.3. (C) Answer the questions as per the instructions:**

(1) Arrange the following states of India in descending order of their population. Himachal Pradesh, Uttar Pradesh, Arunachal Pradesh, Madhya Pradesh, Andhra Pradesh.

Ans. According to 2011 census

Descending order : Uttar Pradesh, Madhya Pradesh, Andhra Pradesh, Himachal Pradesh, Arunachal Pradesh.

(2) Arrange the states of Brazil in ascending order of their population: Amazonas, Rio de Janeiro, Alaguas, Sao Paulo, Parana.

Ans. Ascending order. (All based on 2010 census)

States of Brazil : Alaguas, Amazonas, Parana, Rio de Janeiro, Sao Paulo.

(3) Classify the factors affecting the distribution of population into favourable and unfavourable.

Ans.

	Factors	Favourable / Unfavourable
(1)	Nearness to Sea	**Favourable**
(2)	Lack of roads	**Unfavourable**
(3)	Temperate Climate	**Favourable**
(4)	Lack of Industries	**Unfavourable**
(5)	New Cities and towns	**Favourable**
(6)	Tropical moist forests	**Unfavourable**
(7)	Minerals	**Favourable**
(8)	Semi arid climate	**Unfavourable**
(9)	Cultivated land	**Favourable**

Q.3. (D) Name the following:

(1) Indian cities that are densely populated.

Ans. Delhi, Kolkata, Mumbai, Pune, Bengaluru, Chennai.

(2) Factors which play an important role in the distribution of population.

Ans. Physiography and climate

(3) Factors due to which human settlements have been established for many centuries.

Ans. Fertile land, plain land and availability of water

(4) Factors due to which population got concentrated in a few places, in India.

Ans. Farming, industries and trade

(5) Areas which have sparse population density in India.

Ans. Mountainous / hilly regions, dry desert areas, dense forest areas.

(6) Factors due to which population density is sparse in a few areas.

Ans. Inaccessibility, absence of facilities and tough life.

(7) The most populated country in the South American continent.

Ans. Brazil.

(8) Brazil's ranking in the world with regard to population as well as land area.

Ans. Fifth

(9) The part of Brazil having maximum concenration of population.

Ans. Eastern coastal areas or coastal lowlands.

(10) The part of Brazil that is sparsely populated.

Ans. Amazon River Basin

(11) The region of Brazil that is moderately populated.

Ans. The highlands.

(12) The parts of Brazil that are less populated.

Ans. Central and western parts.

(13) Out of Brazil and India, the country where men outnumber women.

Ans. India.

(14) Increase in this factor is an indicator of development of that society.

Ans. Life expectancy / Sex Ratio / Literacy Rate.

(15) Factors that lead to an increase in average life expectancy.

Ans. Improvement in medical facilities, progress in medical field and access to nutritious food.

(16) The development of this aspect of an economy leads to an increase in average life expectancy.

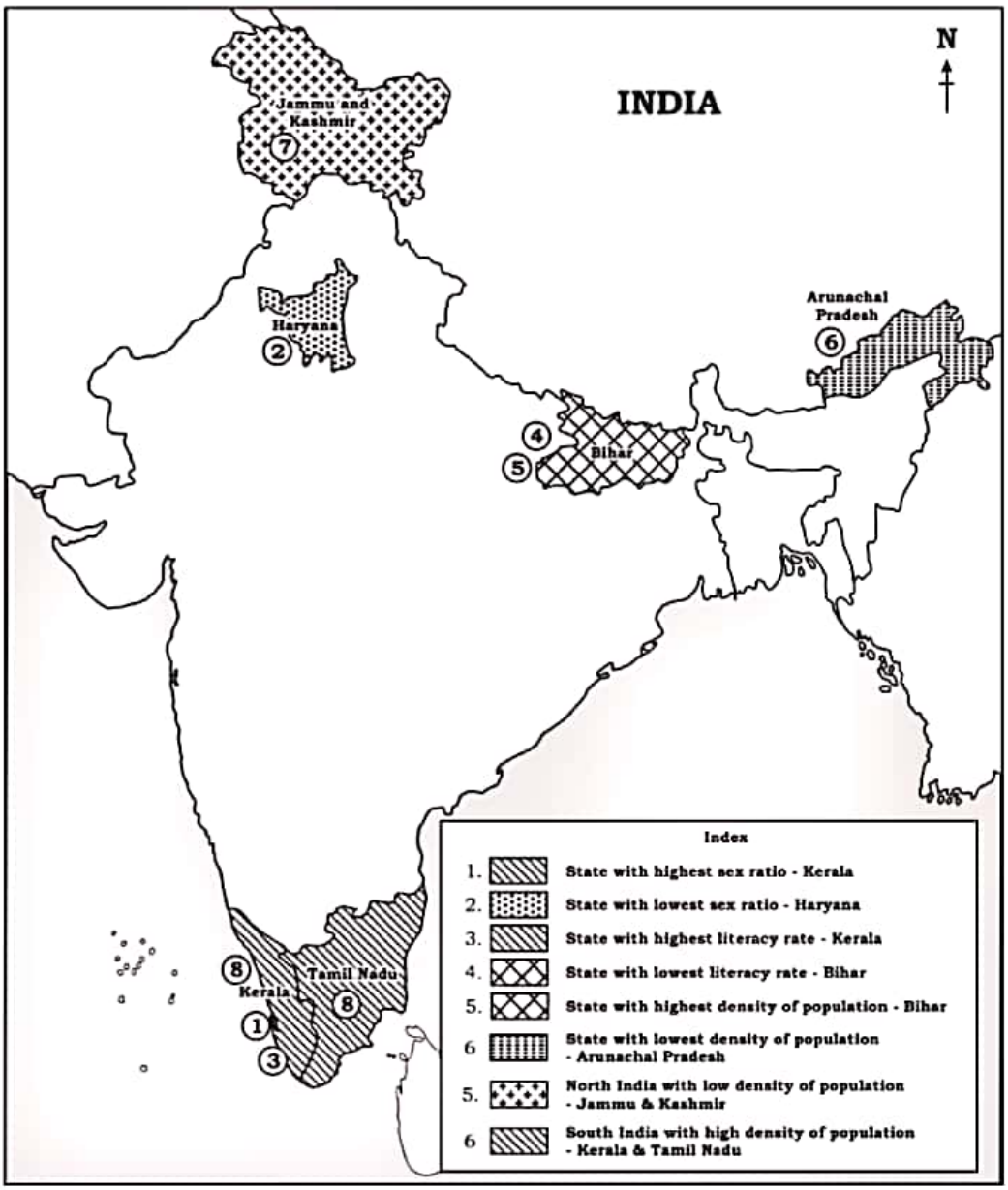
Ans. Socio - economic development.

Q.4. (A) Fill the map with the given information:

(I) On a map of India, show the following.

(1) State with highest sex ratio.
(2) State with lowest sex ratio.
(3) State with highest literacy rate.
(4) State with lowest literacy rate.
(5) State with density of population.
(6) One state of North India with low density of population.
(7) Two states in South India with high density of population.

Ans.



(II) On a map of Brazil, show the following.

(1) A place in Brazil with highest density of population.

(2) Two places with a high density of population.

(3) State with lowest density of population.

Ans.

1. A place in Brazil with highest density of population - Brasilia
2. Two places with a high density of population - Brasilia, Rio De Janeiro
3. State with lowest density of population - Roraima

***Q.4. (B)**

(1) Read the following diagram and answer the questions:

(a) Compare and classify the population densities shown in the figure `a' and `b' representing 1 sq. km. of area.

Ans. In the fig. (a) density of population is 7 persons per sq. km. The region is sparsely populated due to the less number of people in one square km.

In the fig. (b), The density of population is 18 persons per sq. km. The region is densely populated due to the increase in the number of people in per sq. km.

(b) If in figure B one sign = 100, then what will be the sex ratio?

Ans. In fig (b), Number of female = 1000

Number male = 800

As a sex ratio is calculated as the number of female the 1000 males

Males	800	1000
Females	1000	?

$$\frac{1000 \times 1000}{800} = 1250$$

If one sign is 100, the sex ratio is 1250 females per 1000 males.

(c) Comment upon the population density of fig 6.1 (b).

Ans. The population density in India, as shown in the fig. 6.1(b) is very uneven. The density of population per sq. km. is divided in to four classes.

less than 100

101 - 250

251 - 500

More than 500

(i) In the Northern hilly/mountainous states of Jammu and Kashmir, Himachal Pradesh and Uttarakhand, the population density is very low, i.e. less than 100 persons per sq. km. It is the same in the state of Arunachal Pradesh, Mizoram and Sikkim as they lie in the Purvanchal Himalayan region. This is due to inaccessibility, unfavourable climatic conditions, heavy rainfall and dense forests. Providing social infrastructure, amenities and other services becomes relatively expensive here.

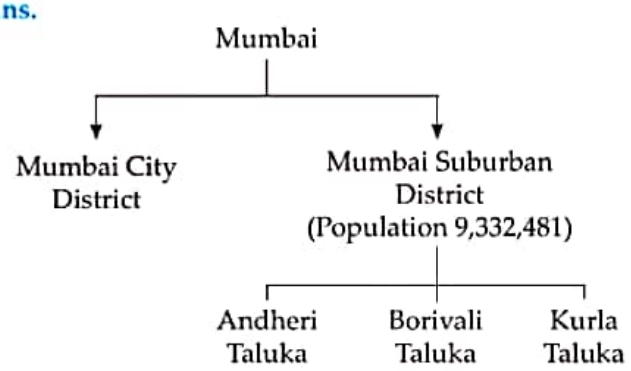
(ii) The Central Plains of India, i.e The Northern Plains (comprising Punjab, Haryana, Uttar Pradesh, Bihar, West Bengal) and the Eastern Plain (the Assam Plain which is an extension of the North Indian Plain) have a high density of population, i.e. more than 500 persons per sq.km. The reasons are (a) plenty of rivers flowing in the region thereby making the soil fertile and (b) making it favourable for agriculture and settlements due to availability of fresh water, (c) making it easier for laying a dense network of transportation due to plain and flat land, etc. The same applies to Tamil Nadu and Kerala that have a good amount of water due to the presence of monsoons, and highly urbanised districts.

(iii) The states of Assam and Tripura in the far east, the eastern and western coastal states of Gujarat, Goa, Maharashtra, Karnataka, Andhra Pradesh and Odisha as well as the interior states like Telangana and Jharkhand have a moderate population density of 251 to 500 people per sq.km. In most of these states, there are high density districts, normally located on the coasts, due to well developed agriculture and the presence of highly industrialised and urbanised districts.

(iv) The states of Rajasthan, Madhya Pradesh, Chhattisgarh, Meghalaya, Manipur and Nagaland have a population density of 101 to 250 people per sq.km. Some states suffer from certain physical handicaps such as aridity, undulating topography having shallow soils, presence of mountains and forest cover. The prevalence of subsistence tribal economy, low level of socio-technical development and adverse physical conditions are some of the factors responsible for the lower density of population here.

(d) Obtain the talukawise data of your district's population and show it with the help of a dot map.

Ans.



(2) Answer the following by reading the graph
(Refer graph in Textbook Page No. 40, Fig 6.3)

Comparative study of the Sex Ratio of Brazil and India.

(a) What is the difference in the sex ratio of India and Brazil in the year 1961?

Ans. India's sex ratio in 1961 : 940
Brazil's sex ratio in 1961 : 1010 (approx.)
Difference in the sex ratio between India and Brazil is approx 70. (1010 - 940 = 70) Brazil's sex ratio is more than India's by 70.

(b) During which year has India's sex ratio been the lowest?

Ans. India's sex ratio has been the lowest in the year 1991.

(c) In which year has Brazil's sex ratio been the highest? Mention the sex ratio.

Ans. Brazil's sex ratio has been the highest in the year 2011. It is approximately 1080 females per 1000 males.

(d) During which three years has the India's sex ratio been quite close or quite similar.

Ans. The three years when the Indian sex ratio has been close or similar are
(i) 1971 and 1991 showing a low trend.
(ii) 1981 and 2001 showing and increasing trend
(iii) 1961 and 2011 with a sex ratio of 940.

(e) What overall difference do you observe between the sax ratios of Brazil and India during the decade 2001 to 2011?

Ans. During the decade 2001 to 2011, there has been a sharp rise in the sex ratio of Brazil from about 1020 to about 1080, which is a great jump or leap. During the same decade, India's sex ratio has increased only marginally i.e. from about 930 to 940.

(f) During which two decades do you observe a fall in the sex ratio in India?

Ans. During the decades 1961 to 1971 and 1981 to 1991, we see a downward sloping line in the graph of India, which indicates a fall in the sex ratio in India.

(3) On the basis of the map 6.2(b), classify the distribution of population in Brazil in the following table.:
(Refer map in Textbook Page No. 39, Fig 6.2 [b])

Ans.

Sr. No.	Population Density	Names of the places
(1)	Less than 50	Acre, Amazonas, Roraima, Rondonia, Para, Amapa, Mata Grasso, Mato Grasso Do Sul, Goias, Tocantins, Maranhao, Piaui, Bahia, Minas Gerais, Rio Gande Do Sul
(2)	51 -100	Paraiba, Parnambuco, Parana, Santa Catarina, Sergipe, Rio Grande Do Norte, Ceara
(3)	101 - 150	Alagoas
(4)	151 - 300	Sao Paulo
(5)	More than 300	Rio de Janerio, Brasilia

(4) Population growth rate graphs :

Look at the graphs in Fig. 6.5 indicating the population growth rate of Brazil and India and answer the following questions.
(Refer in Textbook Page No. 42, Fig 6.5)

(a) What is the common feature in both the graphs?

Ans.
(i) Both the graphs are indicating that the population has not decreased, and it is increasing. But the growth rate is not as high as before.
(ii) Both the graphs show lesser growth in the last 2 decades.

(b) What feature on the graph will indicate that the population is decreasing?

Ans. On the graph, if the line or the point is marked below zero, then it will indicate that there is a negative population growth rate and that population is decreasing.

(c) In which two decades has the population growth rate of India remained almost stable?

Ans. The population growth rate of India has remained almost stable during the two decades 1971 to 1981 and 1981 to 1991.

(d) During which time period has Brazil seen a sharp decline in the population growth rate?

Ans. From 1980- 1999, Brazil has seen a sharp decline in the population growth rate.

(e) What is the main point of difference between the two graphs?

Ans.

(i) In the first decade between 1961-1971 the growth rate in India showed an upward trend whereas Brazil have a downward trend throughout.

(ii) Also the decline in Brazil is more sharp but India's decline in the growth rate is marginal.

(f) What is the most promising feature of Brazil's growth rate of population?

Ans. The most promising feature of the trend of Brazil's population growth rate is that it is about to touch 0.0 and then will begin its negative growth rate (i.e.) the population will start decreasing.

(5) Based on this figure, observe carefully and answer the question given below.

(Refer in Textbook Page No. 43, Fig 6.6)

(a) In which year has the difference in the life expectancy in Brazil and India been the maximum? Show the calculations.

Ans. In the year 1960, the difference between the life expectancy of Brazil and India has been the maximum

Brazil's Life expectancy in 1960 : 54

India's Life expectancy in 1960 : 41

Brazil's life expectancy is more than India's by 13 years

(b) Has the difference in life expectancy been increasing or decreasing?

Ans. During the past 36 years, (i.e.) from 1980 onwards, the difference between the life expectancy of Brazil and India has remained constant. It has been 7 to 8 years.

(c) What is the similarity between both the graphs?

Ans. Both India and Brazil have experienced an increase in the life expectancy. Both the graphs indicate an upward trend continuously.

(d) Is the increase in life expectancy a positive or a negative indicator of an economy? Why?

Ans. The increase in life expectancy is a positive indicator for any economy because the longer the people's average age, the longer the productive years of a person, which indirectly contributes towards the growth of an economy. It also indicate the social development of that economy.

(6) Based on the figure, observe carefully and answer the questions given below.

(Refer in Textbook Page No. 44, Fig 6.7)

(a) What do the graphs indicate?

Ans. The graphs indicate the literacy rates of India and Brazil (in percentage).

(b) What is this general conclusion that you can come to, after observing both the graphs?

Ans. On observing both the graphs, we can conclude that Brazil is and has always been way ahead of India with regard to literacy rate.

(c) What is the general conclusion, regarding the literacy rates of Brazil and India? after comparing both the graphs,

Ans. Both Brazil and India are progressing, Brazil's literacy rate is much higher than of India. The gap between the literacy rates of both the countries, which was earlier wider has continuously been narrowing. It has reduced from 33.8% in 1981 to 20.4% in 2016. So, India has definitely been progressing consistently.

(d) What has been the total growth of Brazil with regard to literacy rate? State with regard to 1981 till today?

Ans. The literacy rate of Brazil was 74.6% in 1981 whereas it was 92.6% in 2016. So, the literacy rate has increased by 18% (92.6% - 74.6%) in 35 years.

(e) What has been the total growth in India's literacy rate from 1981 to 2016?

Ans. India's literacy rate was 40.8% in 1981 and has touched 72.2% in 2016. So, we have achieved a growth of 31.4% (72.2% - 40.8%) in the same time period of 35 years.

(f) Why do you think India could grow at such a fast pace with regard to its literacy rate?

Ans. India's literacy rate was only 40.8% in the year 1981. So, with such a larger percentage of illiterate people still in the country, the scope for growth was more. On the other hand, for Brazil, the scope for improvement at this rate was limited, comparatively, because even in 1981, it was already at 74.6% which is higher than what India has managed to achieve by 2016.

Q.5. Give geographical reasons:

***(1) Population is an important resource.**

Ans.

(i) Population is an important resource of any country.

(ii) The qualitative aspects of a population are important for a nation's economic and social progress.

(iii) The supply of labour in a country depends upon the size of the population.

(iv) The higher proportion of a youth in a country contributes to the economic activities leading to economics progress.

(v) Education, training and health services improve the quality of human resources.

(vi) Thus an optimum and quality population can bring about a country's development.

***(2) Brazil's population density is very less.**

Ans.

(i) Brazil is the fifth largest country in the world with respect to area.

(ii) It occupies 5.6% of world's total land area.

(iii) Brazil is the 5th most populated country in the world with a population of around 19 crores (according to Census 2010).

(iv) This account for only 2.78% of world's total population.

(v) Thus Brazil has more percent of world's land than world's population. Therefore, the density of population is very less i.e. around 23 persons per sq.km.

***(3) India's population density is high.**

Ans.

(i) India is the second most populous country in the world, with a population of around 121 crores (according to census 2011).

(ii) India occupies only 2.41% of the land area of the world, but it supports 17.5% of the world's population.

(iii) Thus India has less percent of world's land and high percent of world's population.

(iv) Hence, India's average population density is high i.e. 382 persons per sq. km. (as per the Census 2011).

***(4) The density of population is sparse in the Amazon basin.**

Ans.

(i) The interior part of the Amazon basin has
  (a) A very unfavourable hot and humid climate
  (b) Heavy rainfall nearly 2000 mm
  (c) Dense forests and
  (d) is inaccessible

(ii) Transportation too is not well developed here.

(iii) All these factors are barriers to the development of human settlements.

(iv) Therefore, settlements occur only in a few places in the Amazon basin.

(v) So, the density of population is sparse in the Amazon basin.

***(5) Population density is high in the Ganga plains.**

Ans.

(i) The Ganga Plains are a fertile plain land and there is an availability of fresh water due to the flow of the perennial river Ganga and its tributaries in the region.

(ii) Due to mild climate moderate rainfall and rich fertile soil human settlements have established in the plains region for many centuries now, leading to the occupation of agriculture.

(iii) Apart from agriculture, a good proportion of the population got concentrated there due to the development of industries and trade.

(iv) As a result, population density is high in the Ganga Plains.

(6) In India, population is very unevenly distributed.

Ans.

(i) In India, population is very unevenly distributed

(ii) Physiography and climate play an important role in the distribution of population

(iii) Due to fertile land, plain land and availability of water, human settlements have been established in some parts for many centuries.

(iv) Due to farming, industries and trade, the proportion of the population has become concentrated in a few places.

(v) For example, the Northern Plains of the country, Delhi, Kolkata, Mumbai, Pune, Bengaluru, Chennai, etc.

(vi) On the contrary, in mountainous / hilly regions, dry desert areas, dense forest areas, density is sparse because of inaccessibility, absence of facilities and tough life.

(7) The distribution of population is very uneven in Brazil.

Ans.

(i) The distribution of population is very uneven in Brazil.

(ii) A majority of the Brazilians are concentrated within 300 kilometers of the eastern coastal areas also called the coastal lowlands.

(iii) Therefore, agriculture and industries have flourished well here.

(iv) As a result, higher density of population is found here.

(v) On the other hand, the interior in the Amazon Basin is very sparsely populated.

(vi) Unfavourable climate, heavy rainfall, inaccessibility and dense forests are the barriers to development of human settlements here.

(vii) Therefore, settlements occur only in few places in the Amazon basin.

(viii) The central and western part of Brazil is less populated. The density of population in the highlands of Brazil is moderate.

Q.4. Answer the following questions:

***(1) Explain the similarities and differences between the population distribution in Brazil and India.**

Ans. Similarities in population distribution in Brazil and India:

(i) In Brazil as well as in India, population is very unevenly distributed.

(ii) Inaccessibility dense forests and absenence of facility are the barriers to human settlements.

(iii) Regions in the north, north west and north east of both the countries are regions of low population.

(iv) Population is concentrate in flat fertile regions which have abundent water resources, transport facilities, mild climate and development of agriculture industries and trade.

(v) Coastal regions are densely populated in Brazil. Also the western and eastern coastal region on the northern plains of India are densely populated.

Differences between population distribution in Brazil and India.

(i) Though the area of both the countries is occupied by vast river basins the distribution of population is extremely opposite in both the river basins.

(ii) The Amazon river basin is densely populated.

(iii) The average density of population in India it is 382 persons per sq.km.

***(2) Giving examples, correlate climate and population distribution**

Ans. Climate and population distribution are closely interreleted. A temperature and rainfall, the two elements of climate greatly influence the population consentration.

(i) Unfavourable hot and humid climate, heavy rainfall, inaccessibility and dense forests are the barriers to the development of human settlement in the interiors of the Amazon basin in Brazil.

(ii) Similarly the north-eastern states in India also have a low population due to the same factors metioned above.

(iii) In the northernmost part of Jammu & Kashmir, population is hardly seen in the snow covered regions due to extremely cold climatic conditions.

(iv) Due to meagre rainfall and extreme climatic conditions settlements are lesser and sparse in the westernmost part of India in the Thar desert region of Rajasthan.

(v) Similiarly due to high temperature and low rainfall population is low in the north eastern part of Brazilian Highlands.

(vi) The coastal plains of Brazil and the northern plain as well as the coastal plains of India are densely populated due to mild climate and moderate rainfall.

***(3) How can sex ratio improve?**

Ans. Sex ratio can be improved by educating people about the importance of having a well-balanced sex ratio. Female literacy and women empowerment should be increased. People should be aware of the negative consequences and the social problems that can crop up if the number of males is much higher. Gender bias should be removed from society for sex ratio to improve by discouraging unjust social custom and protecting women by stricter government regulations.

(4) How can population growth be controlled?

Ans.

(i) Population growth can be controlled by educating the masses about the end result of having too many children (e.g.) low standard of living, difficulty in providing everyone with even the basic facilities and education.

(ii) To remove the notion that 'larger the family more the income' by increasing the literacy rate, reducing the poverty, by increasing employment opportunity and empowering females.

(iii) Population can be control by creating awareness to social massages, with the help of NGOs and by introduction by family planning measures.

(iv) Strict Government regulation can also play an important role but voluntary involvement stand always give desired results.

ACTIVITY *(Textbook Page No. 38)*

(Refer map to Textbook Page No. 38, Fig 6.1 [a] and [b])

Study the maps and answer the following questions :

(a) States with the highest population density.

Ans. Punjab, Haryana, Uttar Pradesh, Bihar, West Bengal, Kerala and Tamil Nadu.

(b) States with lowest population density.

Ans. Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, Mizoram and Arunachal Pradesh.

(c) On the basis of maps given above, classify the distribution population in India in the following table.

Ans.

Sr. No.	Population Density (per sq.km.)	Name of the States / Union Territories
(1)	less than 100	Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, Mizoram, Arunachal Pradesh
(2)	101 to 250	Meghalaya, Manipur, Nagaland, Rajasthan, Madhya Pradesh, Chattisgarh.
(3)	251 to 500	Gujarat, Maharashtra, Goa, Karnataka, Andhra Pradesh, Telangana, Odisha, Jharkhand, Assam, Tripura.
(4)	more than 500	Punjab, Haryana, Uttar Pradesh, Bihar, West Bengal, Kerala and Tamil Nadu.

***(d) Correlate the climate and physiography of India with its population distribution and write a note on it.**

Ans.

(i) The climate in the northernmost part of India is unfavourable due to its extremely low temperature because of the permafrost conditions existing there in the Himalayas. The western part of India is semi – arid with extreme climates in the desert region of Rajasthan. The far eastern states of India receive the heaviest rainfall in the world. So, they have dense forests too. (Cherrapunji / Mawsynram). They have a very uneven topography, and are highly inaccessible regions with hardly any flat and plain land to develop any kind of transport network. This leads to lesser number of people settling there, thereby leading to negligible amount of trade or business in the economy of the region.

(ii) The North Indian Plains with a temperate like climate have plenty of rivers flowing through them along with their tributaries making it a very fertile plain with flat and plain lands. This makes the region favourable for settlements due to easy availability of fresh water for domestic purposes, industrialization, agriculture, hydel and power production well developed transport system.

(iii) The Eastern Coastal Plain is largely a deltaic plain due to the deltas formed there by the four major eastward flowing rivers there, thus making it a favourable region for settlements, agriculture, etc.

(iv) The Western Coastal Plain too has many natural harbours and has many rivers. The region receives plenty of rainfall from the south west monsoon winds, thus making it a favourable destination for settlements.

(v) Both the coastal plains have ship building industries, fishing industries, agriculture etc. due to their large settlements. Thus, population distribution directly depends on the climate and physiography of a place.

(vi) Also due to flat land, farming and industrial development and aboundant mineral resources the peninsular plateau is also moderatly populated.

Make friends with maps!

(Textbook Page No. 39)

(Refer to Textbook Page No. 39, Fig 6.2 [a] and [b])

(a) In which area is population greatly concentrated?

Ans. Population is greatly concentrated in the south eastern part of Brazil.

(b) In which area is the distribution of population sparse?

Ans. The Amazon basin in the nothern part and the central and western parts of Brazil have sparse distribution of population.

(c) Prepare a note on factors responsible for the uneven distribution of population based on the study of Brazil you have made so far.

Ans. The distribution of population in Brazil is uneven:

(i) Due to hot and humid climate, heavy rainfall, dense forests, inaccessibility, the Amazon basin has a sparse population.

(ii) Also the populatio is low in the swanapy areas of Pantanal.

(iii) The central and western part of Brazil has a low population due to lack of minerals low rainfall and hot and dry climatic conditions.

(iv) The density of population in Brazilian Highlands is moderate.

(v) Due to flat fertile abundant availability of minerals, agricuture, industries and trade has developed leading to a high population in the coastal regions and in the southern part of Brazil.

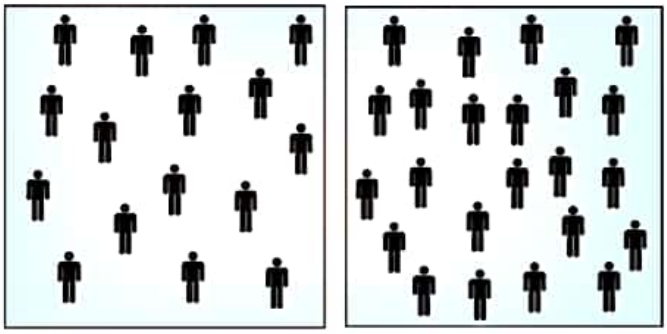
(d) Identify the type of map showing distribution.

Ans. The type of map showing distribution of population is a dot map.

USE YOUR BRAIN POWER ! *(Textbook Page No. 39)*

Calculate the population density of area shown in 1 sq.km. of square in 'a' and 'b' each

= 80 people



(a) (b)

Ans. Population density of area shown in 1 sq. km. of square (a) = 1280 persons per sq.km.

1 sign = 80 people

16 × 80 = 1280 people per sq. km.

Population density of area shown in 1 sq. km. of square (b) = 1840 persons per sq.km.

1 sign = 80 people per sq. km.

23 × 80 = 1840 people per sq. km.

GIVE IT A TRY. *(Textbook Page No. 40)*

(a) What could be the reasons of lower sex ratio in any region? *(Give it a try; Textbook Page No 40)*

Ans. Some of the reasons for lower sex ratio in any region are :

(i) **Illiteracy :** Narrow mindedness and lack of education leads to gender bias in the society.

(ii) **Sex discrimination :** Preference of a boy child over a girl child leads to poor sex ratio.

(iii) **Poverty :** Poverty struck families do not prefer a girl child as they consider female child a burden due to practices like dowry prevalent in the society.

(iv) Female infanticide and female foeticide in on a rise due to the availability of modern technology which is wrongly used.

(v) Government policies stricter implementation and more government support required.

(b) In India, men outnumber women. Is this condition found in all the states of India?

Ans. In India, men outnumber women, on an average. But in some of the states of India, women outnumber men. They are (based on the 2001-2011 census) :

Sr. No.		2001	2011
(1)	Kerala (State)	1058 females per 1000 males	1084 females per 1000 males
(2)	Puducherry (U.T.)	1001 females per 1000 males	1037 females per 1000 male

TRY THIS *(Textbook Page No. 41)*

Using the figure 6.4 find the difference between the males and females of various age groups.

Ans. The difference (approximate) between the males and females of various age groups is as follows :

India 2016					Brazil 2016			
More numbers	Difference	Females	male	Age Group	Male	Female	Difference	More numbers
Males	0.5	4.3	4.8	0 - 4	3.7	3.5	0.2	Males
Males	0.5	4.4	4.9	5 - 9	3.8	3.7	0.1	Males
Males	0.6	4.4	5.0	10 - 14	4.2	4.0	0.2	Males
Males	0.6	4.3	4.9	15 - 19	4.25	4.2	0.05	Males
Males	0.5	4.2	4.7	20 - 24	4.1	3.9	0.2	Males
Males	0.4	4.1	4.5	25 - 29	4.2	4.1	0.1	Males
Males	0.4	3.8	4.2	30 - 34	4.25	4.3	0.05	Females
Males	0.3	3.4	3.7	35 - 39	3.9	4.0	0.1	Females
Males	0.25	3.0	3.25	40 - 44	3.4	3.6	0.2	Females
Males	0.05	2.7	2.75	45 - 49	3.2	3.3	0.1	Females
Males	0.2	2.3	2.5	50 - 54	2.8	3.1	0.3	Females
Males	0.1	2.0	2.2	55 - 59	2.3	2.6	0.3	Females
Equal	0	1.7	1.7	60 - 64	1.8	2.1	0.3	Females
Equal	0	1.2	1.2	65 - 69	1.3	1.7	0.4	Females
Females	0.1	0.8	0.7	70 - 74	0.9	1.2	0.3	Females
Females	0.2	0.6	0.4	75 - 79	0.6	0.8	0.2	Females
Equal	-	0.3	0.3	80 - 84	0.3	0.5	0.2	Females
Eqaul	-	0.2	0.2	85 - 89	0.2	0.3	0.1	Females
Equal	-	0.1	0.1	90 - 94	0.5	0.1	0.05	Females
-	-	-	-	95 - 99	-	-	-	-
-	-	-	-	100↑	-	-	-	-
In India, the difference in the percentage between the males and females is maximum in the age groups is 0 - 14 and 15 - 34.					In Brazil, the difference in the percentage between the males and female is maximum in the age group of 50 - 59 and 60 - 69.			

USE YOUR BRAIN POWER ! *(Textbook Page No. 43)*

Is there a relationship between increase in life expectancy and growth of population ? How?

Ans.

(i) There is definitely a relationship between increase in life expectancy and growth of population (e.g.) If the life expectancy is less, the growth of population could be less.

(ii) If a person lives longer it shows that the birth rate is decreasing and there will be an increase in population.

(iii) Also a person living longer will indicate an increase in number of children he may have.

COLOURS OF BOTH *(Textbook Page No. 44)*

From Fig 6.3 to 6.7, various aspects of population composition are given. Study the graphs, discuss and answer the following questions.

(a) Which country has a higher sex ratio?

Ans. Brazil is the country with a higher sex ratio than India (Fig. 6.3)

(b) Which country has a higher literacy rate?

Ans. Brazil has a higher literacy rate than India. (Fig. 6.7)

(c) Which country is growing at a faster rate?

Ans. India is growing at a faster rate than Brazil. (Fig. 6.5)

(d) Which country's population has a higher life expectancy?

Ans. Brazil has a higher life expectancy (75 years) than India (68 years) (Fig. 6.6)

(e) Which country has a higher proportion of the old age people?

Ans. Brazil has a higher proportion of the old age people (Fig. 6.4)

THINK ABOUT IT. *(Textbook Page No. 44)*

Considering the above discussion, what should be done so that our manpower is utilized properly, sex ratio improves and population growth is controlled? Write two to three sentences on each.

Ans. Education and health are the basic requirement to improve human resource. Our manpower can be utilised properly by imparting training to improve their skills (after giving them the basic education), by creating relevant jobs, by encouraging people to have their own business so that more manpower can be absorbed.

TRY THIS *(Textbook Page No. 44)*

Write a similar conversation using the graph in Figure 6.7

Ans.

A: What do these graphs show?

B: These graphs show the literacy rates of India and Brazil.

A: What do you mean by literacy rate?

B: It means the total percentage of the population of an area at a particular time aged seven years or above who can read and write with understanding.

A: It means that, as on today's date, the literacy rate of our country is 72.2%.

B: But, Brazil had an even higher literacy rate decades back in 1981, i.e. 74.6% and it has touched 92.6 as of today (2018), which is quite commendable.

A: Yes, definitely But, we have also seen a steady growth in the literacy rate of the country, especially, during the period between 1991 and 2011.

B: Still, though we are growing, we are way behind Brazil today with 72.2% because they have a much higher literacy percentage of 92.6.

A: What measures can be adopted to increase the literacy rate of our country?

B: We can make people aware of the need and importance of education, help in teaching them, introducing various literacy campaigns by making use of free calls, free sms services, etc.

USE YOUR BRAIN POWER ! *(Textbook Page No. 44)*

If the proportion of dependent age groups increases in the composition of population, how will it affect the economy of a country?

Ans.

(i) If the proportion of dependent age groups increases in the composition of population, it will have an adverse effect on the economy of a country.

(ii) The reason is if the working population is less, the productive activities will reduce and will have a direct impact on the economic growth and development of that nation.

(iii) The production will decrease in comperison to consumption leading to inflation the per capita income and GDP will decrease.

(iv) Export will reduce and import will increase.

(v) The proportion of the working population will be less and this would increase the work pressure on them. Progress will not take place at a fast pace.

GIVE IT A TRY. *(Textbook Page No. 44)*

Study the indices of density maps of both the countries. What difference do you find! What conclusions can you draw?

Ans.

(i) India's density of population is proportionately scatered while Brazil's density of population is only constrated on the eastern coast.

(ii) After studying the indices of the density maps of both the countries, we can conclude that India's population density is much higher than that of Brazil.

(iii) The lowest value on the map of India indicates less than 100 whereas on the Brazil map it is less than 50.

(iv) Places in Brazil which are highest in density is grouped in the category of more than 300 person per sq. km. whereas in India it is more than 500 persons per sq. km.

ASSIGNMENT - 6

Time : 1 Hr. **Marks : 20**

Q.1. Fill in the blanks choosing the most appropriate alternative. **(2)**

(1) With a population of around 19 crores, according to census 2010, Brazil ranks ..... in the world.

(a) 3rd (b) 5th (c) 7th (d) 9th

(2) The interior of the Amazon basin is ..... populated.

(a) densely (b) moderately (c) highly (d) very sparsely

Q.2. Are the following sentences right or wrong? Correct the wrong ones. **(2)**

(1) The western part of Brazil is densely populated.

(2) Brazil is the second most populous country in the South American Continent

Q.3. Answer in one sentence. **(2)**

(1) What is sex ratio?

(2) What is a population pyramid?

Q.4. Answer the questions as per the instructions: **(2)**

(1) Arrange the following states of India in descending order of their population. Himachal Pradesh, Uttar Pradesh, Arunachal Pradesh, Madhya Pradesh, Andhra Pradesh.

Q.5. On outline map of India mark the following: **(2)**

(1) The westernmost state with a population density of 251 to 500 persons per sq.km.

(2) The southern states with a population density of more than 500 people per sq.km.

(3) The easternmost state with a population density of less than 100 persons per sq.km.

(4) The capital of India.

Q.6. Give geographical reasons: **(4)**

(1) Brazil's population density in very less.

(2) Population density is high in the Ganga plains.

Q.7 Answer in detail: **(6)**

(1) Giving examples, correlate climate and population distribution

(2) What could be the reasons of lower sex ratio in any region?

❖❖❖

7 Human Settlement

Points to Remember:

- In India, we can see a variety of settlement patterns given the variety of **climatic factors, availability of water, slope of the land and level of development.**
- Nucleated settlements are found **throughout the plateau region of Narmada Valley, paddy lands in Bihar, Uttar Pradesh, Vindhyan Plateau and several other cultivated parts of India.**
- Dispersed settlements are found in **tribal parts covering the central part of India, eastern and southern Rajasthan, Himalayan slopes and land with dissected and uneven topography.**
- The earlier settlements in Brazil were formed by the settlers from Europe **mainly in the coastal areas.**
- The Sao Paulo area has a nucleated settlement. **(i) The region has good water supply. (ii) Rich soils ideal for growing coffee. (iii) A large supply of natural minerals close by, such as iron ore (iv) A steady energy supply. (v) A good transport system.**
- Settlements become sparse **as we move in towards the central part of Brazil.**
- Given are the major reasons: **(i) The area is covered by thick dense equatorial rainforests. (ii) The climate is unhealthy and unfit (iii) Limitations on use and exploitation of natural resources. (iv) Poor transport links in the region.**
- The level of urbanisation is measured in terms of **percentage of urban population to total population.**
- The growth of urbanisation in India **has been slow.**
- In 2011 the level of urbanisation in India was **31.16% (quite low compared to that of developed countries).**
- Urbanisation has been **more in the south than in the north.**
- The most urbanised state with 62% population living in urban areas **Goa**
- Delhi is more than **80% urban.**
- In the states of Tamil Nadu, Maharashtra, Gujarat and Kerala **urbanisation is more.**
- Himachal Pradesh, Jammu Kashmir, Uttarakhand, Bihar, Rajasthan are some of the states with **low levels of urbanisation.**
- Brazil is one of the few developing countries **which is highly urbanised.**
- Urban population in Brazil **is about 86%.**
- Looking at this growth in few parts of the country, the Brazil government is promoting **"Go West" policy which will reduce population pressure on few areas as well as reduce regional imbalance in the country.**

- States like Sao Paulo, Goias, Minas Gerais have **more urban population than the states in the North.**
- Manaus is a port on the confluence of the **Negro and the Amazon where urbansiation has occurred.**

MASTER KEY QUESTION SET – 7

Q.1. (A) Tick (√) the correct options:

*(1) The concentration of settlements is related to the following major factor -

(a) Proximity to the Sea ☐
(b) Plain region ☐
(c) Availability of water ☐
(d) Climate ☐

*(2) In North-Eastern part of Brazil, which types of settlements are found?

(a) Nucleated ☐
(b) Linear ☐
(c) Dispersed ☐
(d) Star-shaped ☐

*(3) Where do you find dispersed settlements in India?

(i) Near the rivers ☐
(ii) Near the transport routes ☐
(iii) Hilly areas ☐
(iv) Industrial regions ☐

*(4) Concentrated settlements are found in Narmada Valley

(i) Forested Land ☐
(ii) Cultivable Land ☐
(iii) Undulating topography ☐
(iv) Industries ☐

*(5) Which State has the least urbanisation in Brazil?

(i) Para ☐
(ii) Amapa ☐
(iii) Espirito Santo ☐
(iv) Parana ☐

Ans. *(1) Availability of Water, (2) Dispersed, (3) Hilly areas, (4) Cultivable Land (5) Para*

Q.1. (B) Fill in the blanks choosing the most appropriate alternative :

(1) In India, nucleated settlements are found throughout the plateau region of ..... valley.
(a) Tapi (b) Godavari
(c) Narmada (d) Krishna

(2) Nucleated settlements are found in the ..... lands in Bihar.
(a) wheat (b) jowar (c) bajra (d) paddy

(3) Nucleated settlements are found in the ..... plateau.
(a) Vindhya (b) Meghalaya
(c) Malwa (d) Chhota Nagpur

(4) ..... settlements are found in tribal parts covering central part of India.
(a) Nucleated (b) Linear
(c) Dispersed d) Circular

(5) The earlier settlements in Brazil were formed by settlers from ....., mainly in coastal areas.
(a) Africa (b) Asia
(c) Europe (d) Australia

(6) Although the coastal climate is hot and humid, and flat land is limited due to ..... the region has a good water supply and a large range of natural resources.
(a) high population (b) rugged topography
(c) industies (d) agriculture

(7) Sao Paulo has ..... settlements.
(a) isolated (b) nucleated
(c) scattered (d) dispersed

(8) Rural areas of Brazil such as the north east highlands suffer from ..... which make it difficult for practising agriculture.
(a) high rainfall (b) extreme cold
(c) extreme droughts (d) extreme heat

(9) Settlements become ..... as we go to the central part of Brazil.
(a) sparse (b) dense
(c) nucleated (d) triangular

(10) The transport links are poor in the ..... part of Brazil
(a) Eastern (b) Western
(c) Northern (d) Central

(11) The growth of urbanisation in India has been ..... .
(a) quick (b) moderate (c) slow (d) rapid

(12) In India, urbanisation has been more in the ..... part.
(a) Western (b) Eastern (c) Northern (d) Southern

(13) Goa is the most urbanised state in India with ..... urban population.
(a) 92% (b) 52% (c) 62% (d) 82%

(14) ..... is more than 80% urban.
(a) Goa (b) Gujarat
(c) Delhi (d) Puducherry

(15) Today, about ..... of Brazil population lives in a/an urban area.
(a) 96% (b) 66% (c) 86% (d) 76%

(16) Looking at the growth in a few parts of the country, the government is promoting "Go ....." policy which reduces pressure on other densely populated areas.
(a) East (b) North (c) South (d) West

(17) Urbanisation has occurred more in the ..... states, in Brazil.
(a) inland (b) coastal
(c) central (d) north-western

(18) States like Sao Paulo, Goias, ... have more urban population than the states in the North.
(a) Mato Grosso Do Sul (b) Bahia
(c) Mato Grosso (d) Minas Gerais

(19) ..... is a port on the confluence of the Negro and the Amazon rivers, where urbanisation has occurred.
(a) Alagoas (b) Parana (c) Manaus (d) Ceara

Ans. *(1) Narmada (2) paddy (3) Vindhya (4) Dispersed (5) Europe (6) rugged topography (7) coffee (8) extreme droughts (9) sparse (10) Central (11) slow (12) Southern (13) 62% (14) Delhi (15) 86% (16) West (17) coastal (18) Minas Gerais (19) Manaus*

Q.2. Match the columns:

(1)	Column 'A'		Column 'B'
(1)	Eastern and Southern Rajasthan	(a)	steady energy supply
(2)	Cultivated parts of India	(b)	sparse settlements
(3)	Brazilian north-east Highlands	(c)	hot and humid
(4)	South-Eastern Brazil	(d)	nucleated settlements
(5)	Central Brazil	(e)	droughts
		(f)	dispersed settlement

Ans. *(1 – f), (2 – d), (3 – e), (4 – a), (5 – b)*

(2)	Column 'A'		Column 'B'
(1)	Most urbanised state	(a)	Bihar and Jammu and Kashmir
(2)	Low level of urbanisation	(b)	Tamil Nadu and Kerala
(3)	More urbanization	(c)	Delhi
(4)	More than 80% urban	(d)	Puducherry
		(e)	Goa

Ans. *(1 – e), (2 – a), (3 – b), (4 – c)*

(3)	Column 'A'		Column 'B'
(1)	Manaus	(a)	More urban population
(2)	Amazon Basin and Brazilian Highlands	(b)	Major metropolitan and industrial area.
(3)	Sao Paulo	(c)	Less urbanisation
(4)	South and South-eastern part of Brazil	(d)	Gold mines
(5)	Goias and Minas Gerais	(e)	Good transport system
		(f)	Confluence of Negro and Amazon

Ans. *(1 – f), (2 – c), (3 – b), (4 – e), (5 – a)*

Q.3. Find out the correct group :

(1) States of Brazil having 91% to 100% urban population.

(a) Sao Paulo, Goias, Espirito Santo, Tocantins.

(b) Espirito Santo, Rio De Janeiro, Para, Goias.

(c) Espirito Santo, Goias, Sao Paulo, Rio De Janeiro.

(d) Sao Paulo, Amapa, Santa Catarina, Rondonia.

Ans. Espirito Santo, Goias, Sao Paulo, Rio De Janeiro.

(2) State of India having less than 20 % of Urbanisation.

(a) Meghalaya, Uttar Pradesh, Arunachal Pradesh, Rajasthan.

(b) Lakshadweep, Daman & Diu, Puducherry, Nagaland.

(c) Tamil Nadu, Mizoram, Gujarat, Maharashtra.

(d) Odisha, Assam, Bihar, Himachal Pradesh.

Ans. Odisha, Assam, Bihar, Himachal Pradesh.

(3) Nucleated settlements in India.

(a) Vindhyan plateau, Plateau region of Narmada valley, Paddy lands in Bihar, Uttar Pradesh.

(b) Rajasthan, Sikkim, Arunachal Pradesh, Punjab.

(c) Himalayan slopes, East Rajasthan, Tribal part of Madhya Pradesh, Nagaland.

(d) Vindhyan plateau, Paddy lands in Uttar Pradesh, Land with dissected topography, Bihar.

Ans. Vindhyan plateau, Plateau region of Narmada valley, Paddy lands in Bihar, Uttar Pradesh.

(4) Dispersed settlements in India.

(a) West coast, West Rajasthan, Paddy lands of Punjab, Mizoram.

(b) Land with dissected topography, South Rajasthan, Vindhya plateau, Uttar Pradesh.

(c) Tribal part of Madhya Pradesh, Himalayan slopes, West and South Rajasthan, Land with the uneven topography.

(d) Himalayan slopes, Narmada Valley, West Rajasthan, South India.

Ans. Tribal part of Madhya Pradesh, Himalayan slopes, West and South Rajasthan, Land with the uneven topography.

(5) States of India having urbanisation between 41% to 60%.

(a) Chandigarh, Daman & Diu, Gujarat, Uttar Pradesh.

(b) Maharashtra, Kerala, Gujarat, Mizoram.

(c) Jharkhand, Karnataka, Maharashtra, Goa.

(d) Andhra Pradesh, West Bengal, Uttarakhand, Assam.

Ans. Maharashtra, Kerala, Gujarat, Mizoram.

(6) Trend of urbanisation in India.

(a) 1981 - 18%, 1991 - 28%, 2001 - 33.3%, 2011 - 45.7%

(b) 1980 - 66%, 1990 - 74.6%, 2000 - 81.5%, 2010 - 84.6%

(c) 1981 - 23.3%, 1991 - 25.7%, 2001 - 27.8%, 2011 - 31.2%

(d) 1980 - 47%, 1970 - 56.8%, 1980 - 60%, 1990 - 70%

Ans. 1981 - 23.3%, 1991 - 25.7%, 2001 - 27.8%, 2011 - 31.2%

Q.4. State whether the statements are Right or Wrong. Correct the worng one :

(1) India does not have a great tradition of unbanisation.

Ans. Wrong - India has a great tradition of unbanisation. Harappa, Moheanjodaro, Paithan etc. are few example of the urban settlements of earlier times.

(2) The earlier settlements in Brazil were formed by the rettlers from America.

Ans. Wrong - The earlier settlements in Brazil were formed by the rettlers from Europe.

(3) North-East Highlands of Brazil suffer from extreme droughts.

Ans. Right.

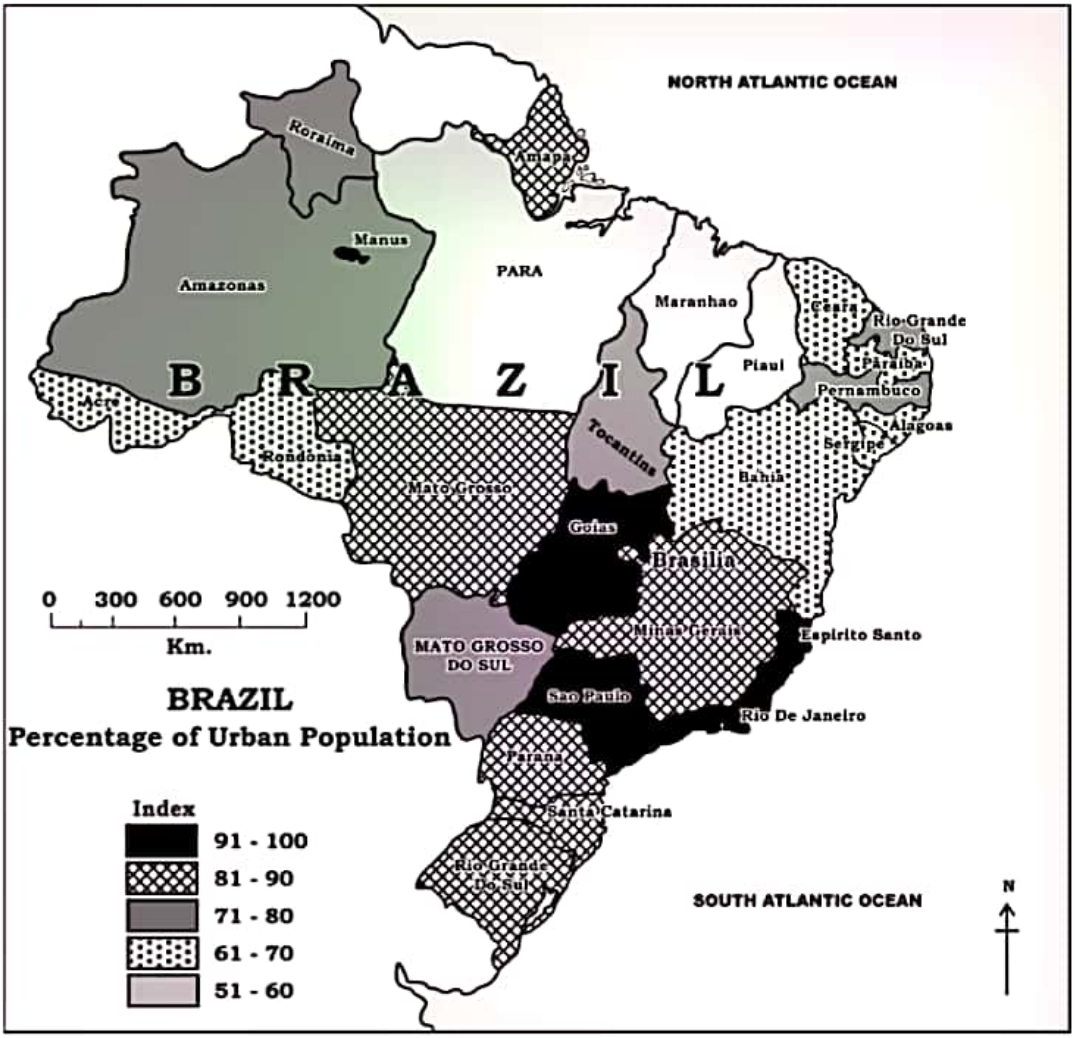
(4) The growth of urbanisation in India has been very fast, reaching 86% in 2011.

Ans. Wrong - The growth of urbanisation in India has been very slow. In India urbanisation grow from 18% in 1961 to 31.2% in 2011.

(5) In under developed countries, the rate of urbanisation is low.

Ans. Right.

Q.5 Study the choropleth map of Brazil showing the Statewise urban population of Brazil and answer the following questions :



(1) Which State (region) in Brazil is the most urbanised?

Ans. The states of Sao Paulo, Rio de Janeiro, Minas Gerais, Espirito Santo and Manus in Brazil are the most urbanised

(2) Which state (region) in the least urbanised ?

Ans. The states of Para, Maranhao and Piaui in Brazil are the least urbanised states.

Q.6. Give geographical reasons:

***(1) Availability of water is a major factor affecting settlements.**

Ans.

(i) The human settlements in a particular place depends on factors like the physical geography (climate, availability of water, topography of the land) availability of economic opportunities, transport facilities, government policies etc.

(ii) Of all these, availability of water is a major factor affecting human settlements.

(iii) Water is required for survival of living beings, for purposes like drinking, cooking, agriculture, industries etc.

(iv) The ancient settlements in Varanasi, Harappa, Mohenjodaro, Paithan developed in river basins.

Thus it can be said that the prosperity of human civilization depends on availibility of water.

***(2) In Brazil, a majority of the population is found in the eastern coastal areas.**

Ans.

(i) The Eastern coast of Brazil has good water supply.

(ii) The region has rich fertile soil which is most suitable for water cultivation..

(iii) Also, this region is rich in minerals like iron core and has a steady power supply.

(iv) An excellent transportation facility is also available here.

(v) Eg. states like Sao Paulo, Rio De Janeiro, Espirito Santo.
Due to the above reasons, majority of Brazil population is found in the eastern coastal areas.

***(3) Urbanization is increasing rapidly in India.**

Ans.

(i) In India, there has been growing industrialisation, leading to availiability of jobs in urban areas.
(ii) Urban areas have better facilities and amenities like water supply, electricity, health, education etc.
(iii) There is increasing migration of people from rural areas to urban areas.
(iv) Emergence of new towns has further helped urbanisation.
So urbanisation is increasing rapidly in India.

***(4) Settlements are sparse in north-eastern Brazil.**

Ans.

(i) The thick equatorial rainforest zones are in the north-east.
(ii) The climate here is unhealthy and unfit for settlement.
(iii) There are limitations on use and exploitation of natural resources.
(iv) Transport facilities are very poor in the region due to poor infrastructural facilities.
(v) In the North-East Brazil lies the 'Drought Quarilateral' which has poor rainfall and racks any kind of cultivation.
So, settlements are sparse in north eastern Brazil.

***(5) Except Delhi and Chandigarh, urbanization is low in other parts of India.**

Ans.

(i) Delhi and Chandigarh are Union Territories laying in the flat Northern Plains of India.
(ii) Delhi is the capital of India and has an ancient history of urbanisation.
(iii) Chandigarh is one of the most well planned citiesm known internationally for its architecture.
(iv) Both Delhi and Chandigarh have good water supply due to rivers like Yamuna and many waterbodies.
(v) As compared to the other cities in North India, both the cities have well developed infrastructure, industries and opportunities employment.
Hence, except Delhi and Chandigarh, urbanisation is low in other parts of India.

(6) Sao Paulo area has nucleated settlements.

Ans.

(i) Sao Paulo situated in South East coastal Brazil.
(ii) The region has a good water supply.
(iii) It an extensive area under rich soil which is it ideal for growing coffee.
(iv) It has a large supply of natural minerals close by, such as iron ore.
(v) It also has a steady energy supply.
(vi) This region has a good transport system too.
(vii) All these factors makes Sao Paulo, an area of nucleated settlements.

(7) Brazil is one of the few developing countries which is highly urbanised.

Ans.

(i) Brazil's substantial urban growth process is unique and one of the underlying factors contributing to its present-day rapid economic growth.
(ii) In 2010, about 86% of Brazil's population lived in an urban areas.
(iii) In Brazil, rapid urbanisation happened mainly in the South and South-East with Sao Paulo emerging as a major metropolitan and industrial area.

(8) The Brazilian government is promoting 'Go West' policy.

Ans.

(i) Brazil is one of the few developing countries which is highly urbanised.
(ii) But urbanisation in Brazil is confined to South and South East.
(iii) For E.g. States like Sao Paulo, Goias, Minas Gerais, Rio De Janeiro have very high urban population.
(iv) Western Brazil continues to remain least urbanised, creating regional imbalance.
(v) In order to reduces regional imbalance, the Brazil Government is promoting 'Go-West Policy'.

Q.7. Answer in short :

***(1) Write a comparative note on urbanisation in Brazil and India.**

Ans.

Urbanisation in India	Urbanisation in Brazil
Growth of urbanisation in India has been slow. e.g. From 18% in 1961 to 31.2% in 2011.	Growth of urbanisation in Brazil has been rapid. e.g. From 47.1% in 1960 to 84.6% in 2010.
Urbanisation has been more in southern part than Northern part.	Urbanisation has been more in the coastal states than the states in the interior.
Nucleated settlements are found in paddy lands of Bihar, Uttar Pradesh, Plateau region of Narmada etc.	Nucleated settlements are found in East coastel region.

Dispersed settlements are found in Himalayan slopes, deserts of Rajasthan, tribal parts of central India etc.	Dispersed settlements are found in Amazon valley, Pantanal region.
Most urbanised cities and states are Goa (62%), Delhi (80%), Chandigarh, Maharashtra, Gujarat, Tamil Nadu.	Most urbanised regions are Sao Paulo, Rio De Janeiro, Espirito Santo, Minas, Gerais, Manaus.
Least urbanised states are Himachal Pradesh, Bihar, Assam, Odisha, Central India, North East India.	Least urbanised states are Para, Maranhao, Piaui, Acre, Rondonia.

***(2) Differentiate between the human settlements in the Ganga river basin and the Amazon river basin.**

Ans.

	Human settlements in the Ganga river basin	Human settlements in the Amazon river basin
(1)	Nucleated settlements are found in Ganga River Basin.	Dispersed settlements are found in this rigion.
(2)	River Ganga flows in Northern India and the soil deposited by Ganga and tributaries its tribal found has helped the of Northern Plains.	The Amazon River Basin is to the north of Brazil is and is its largest river basin.
(3)	There is ample of water, fertile soil, favourable climate in the Ganga River Basin.	It receives around 2000mm rainfall. There is extremely unhealthy climate, inaccessibility.
(4)	Ganga River Basin is suitable for human settlement.	The Amazon River Basin is unsuitable for human settlement.
(5)	The above conditions has helped flourish agriculture and other industries resulting in huge employment opportunities.	Due to dense evergreen forests, there are restrictions on the use of natural resources, which has affected economic development.

***(3) Why do human settlements grow in specific locations only?**

Ans.

(i) Human settlements in specific locations depend on various factors like climate, availability of water, topography level of employment and the development.

(ii) In India nucleated human settlements are found in the Ganga River Basin of Uttar Pradesh, Bihar, because of the flat fertile plains, abundance of water, favourable climate and growth of agriculture and industries.

(iii) Dispersed settlement are found in Himalayan slopes, eastern and southern Rajasthan because of uneven topography unfavourable climate and lack of development.

(iv) In Brazil, nucleated settlements are found in Sao Paulo, Southern Coastal Brazil, due to nearness to the oceans, fertile soil, availability of natural minerals line iron ore, steady power supply and good transportation system.

(v) Dispersed settlements are found in Northern Brazil due to the inaccessible forests in Amazon River Basin, unhealthy climate, limitations on use of natural resources and poor transport connectivity. Scattered settlements are also found in the drought region of Caatinga.

Geographical explanation *(Textbook Page No. 46)*

Study the two types of settlement patterns in India given in figure 7.1 (a) and 7.1 (b) Answer the following questions :

(a) Identify the type of settlements?

Ans. The settlement shown in figure 7.1 (a) is a nucleated settlement as it seems to be on a plain land.
Figure 7.1 (a) is a dispersed settlement.
Figure 7.1 (b) is a nucleated settlement.

(b) Which one is a nucleated settlement? Why?

Ans. The settlement shown in figure 7.1 (b) is a nucleated settlement as it seems to be on a plain land, with good road connectivity.

(c) Which one is a dispersed settlement? What could be the reason behind it?

Ans. Figure 7.1 (b) is a dispersed settlement as it seems to be on a dissected land with poor road connectivity.

(d) Can you guess in which regions are these settlements located in India?

Ans. The dispersed settlements may be an inaccessible village, probably from north-west India. The nucleated settlement pattern may be northern fertile plains.

Think about it *(Textbook Page No. 46)*

Tell whether settlements shown in images 7.1 (a) and (b) are urban or rural.

Ans. The image shown in 7.1 (a) is urban and
The image shown in 7.1 (b) is rural

Let's recall *(Textbook Page No. 46)*

Some amenities and facilities are given here Tick (√) in the relevant column and complete the table on the basis of their presence in urban and rural areas or both. And write five sentences on each with examples from your vicinity.

Ans.

	Amentity	Available in Villages	Available in Cities
(1)	Petrol Pump	√	√
(2)	Theatre		√
(3)	Weekly Market	√	
(4)	Primary Health Centre	√	
(5)	Police Outpost	√	√
(6)	Art Gallery		√
(7)	Gram Panchayat	√	
(8)	Agricultural Produce Market Committee (APMC)	√	√
(9)	Primary School	√	√
(10)	Senior School		√
(11)	College		√
(12)	Shop	√	√
(13)	Multi-speciality Hospital		√
(14)	Metro station		√
(15)	Bus station		√
(16)	University		√

Ans.

(1) **Petrol Pump :** It is a piece of equipment or device installed in a petrol station to dispense petrol, diesel etc. into the fuel tank of a motor vehicle. It also displays the quantity, quality and usually the cost of the petrol delivered too. In cities like Mumbai, there can be more than one or two petrol pumps on the same road. Villages have one or two pumps.

(2) **Theatre :** It is a building or an outdoor area in which plays and other dramatic performances are watched by live audience (people). There are rows of seats and a stage on which a real or imagined event is presented . In villages, there are few theatres - sometimes only one or two, but cities have many theatres to entertain people.

(3) **Weekly Market:** They don't have permanent shops. They are mostly seen in rural areas, small towns and cities. They are very old in nature. They are held on a specific day of the week. Traders set up shops for the day and then close them in the evening or night. In such markets, most of the things are available at one place, e.g. vegetables, clothes, utensils etc.

(4) **Primary Health Centre :** (PHCs) They are also known as Public Health Centres. They are state-owned rural health care facilities in India. They mostly have only one physician. These clinics have facilities for minor surgeries only. They are the most basic units of the Public health system in India. Presently, there are more than 28,000 PHCs in India.

(5) **Police Outposts :** An outpost is a place, especially a small group of buildings or a town, which represents the authority or business interests of a government or company that is far away. Outposts could be police outposts, military outposts or colonial outposts. They are outlying branches or positions of a main organization or a group. Villages have one or two outposts, but cities have many - sometimes more than one in each suburb.

(6) **Art Gallery:** It is a room / hall / building for displaying (showing) or selling works of art, usually (visual art – like paintings). They are not permanently displayed for conservation reasons. They are considered as important assets in the cultural life of any community. There are commercial galleries as well as co-operatives where a group of artists who work together to show their work, promote the gallery. Mumbai has a few renowned art galleries.(e.g.) Jehangir Art Gallery in Mumbai. You will rarely find one in villages.

(7) **Gram Panchayat :** It is a local self- governance organization / system in India at the village level or at a small-town level. It has a sarpanch who is the elected head. There are almost 2,50,000 gram panchayats in India. It is divided into wards. Each ward is represented by a member. The term of the elected representative is 5 years. The secretary of the Gram Panchayat is a non-

elected representative, appointed by the State Government to oversee Panchayat activities.

(8) **Agricultural Produce Market Committee (APMC) :** It is a marketing board established by a State Government in India. These markets are established at different places within the state. Farmers are required to sell their produce via auction at the mandi in their region. Traders require a license to operate within a mandi. Wholesalers and retailers (e.g.) Shopping Mall owners and food processing companies cannot buy produce directly from a farmer. They have special markets for perishables. Farmers and private persons can set up their own market. The revenue of the APMC is to be used for improving market infrastructure. Mumbai has an APMC at Vashi (Navi Mumbai), which is well-known.

(9) **Primary School :** A primary school (elementary school) is a school in which children receive primary or elementary education from the age of about 5 to 13 years. This schooling comes after Pre-school (Pre–Nursery, Nursery, Prep or Lower and Upper K.G.) and before Secondary school. They provide education from Class 1 to 8. Classes 1 to 5 are considered Lower Primary and classes 6 to 8 Upper Primary. This education is compulsory and free in India. These are found both in rural and urban areas.

(10) **Senior School :** Classes 9 and 10 come in this category. 10th board exam is referred to as SSC (Secondary School Certificate) . Not all villages have these schools. Children go to nearby towns or cities to attend such schools.

(11) **College:** College can be Junior College (classes 11 and 12) or it can be Degree College or Senior College. A college is an educational institution offering degrees, diplomas or may offer vocational or technical education. After taking the 10th grade exams, students have to apply to Junior colleges or other such colleges for higher education. These are found in a large number in cities and fewer in smaller towns. Villagers travel to nearby cities or towns to avail this educational facility.

(12) **Shop :** A shop is a place or a person (retailer) that / who presents a selection of goods and offers to trade or sell them to customers for money or for other goods. All kinds of shops, selling various things, are found in villages as well as in cities. Shopping is an activity in which a customer can look at a variety of goods or services available and then buy. Now, we also have online shopping.

(13) **Multi-Speciality Hospital :** These offer care and treatment of a patient suffering from a specific illness. These offer specialized services to patients. They cater to specific health problems only. The Tata Memorial Hospital situated at Parel, Mumbai is a specialist cancer treatment and research centre with enduring values and a mission of providing the best cancer care to all who seek treatment. Such hospitals are not seen in villages.

(14) **Metro Station:** This station is an underground electric railway station for a rapid transit system which as a whole is called a Metro or Subway. It provides a means for passengers to buy tickets, access trains, shopping at its platforms and evacuate in case of an emergency. There are metros in very big cities. e.g.- Mumbai, Kolkata, Delhi. These are not found in villages.

(15) **Bus Station:** This is a place in a town where buses arrive and depart. They start and end their routes here. They are places incorporating waiting areas, stands for buses, and ticket offices from which the buses depart for their allotted destinations. Villages have buses stops but major bus stations are found in towns and cities. All the big cities have bus stations or bus depots.

(16) **University :** A high-level educational institution where students study for achieving degrees and where academic research is done. People study at an undergraduate level (B.A.; B.Com., B. Sc., etc.) or Post graduate level (M.A., M.Com., M.Sc., etc.). A university awards academic degrees in various disciplines (subjecs) which a person prefers to study. It provides facilities for learning and research.

Try this. *(Textbook Page No. 47)*

In the figure 7.2 (a) and (b), you can see images of two settlements in Brazil. One is from the Amazon river basin in Brazil while the other belongs to the coastal area. Observe the settlement patterns carefully and name the types of settlement patterns. Write a comment on their density and types.

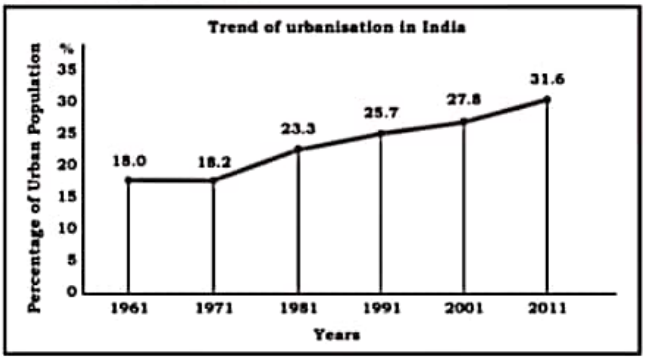
Ans.

(1) Fig. 7.2 (a)
Type settlement pattern : Dispersed settlements on both sides of the river.
Density of Population : Sperse.

(2) Fig. 7.2 (b)
Type settlement pattern : Nucleated settlements are seen.
Density of Population : High.

Can you Tell *(Textbook Page No. 48)*

Read the graph in fig 7.5 below and answer the following questions:



(a) What was the percentage of urbanisation in 1961?

Ans. The percentage of urbanisation in 1961 was 18 %

(b) In which decade was urbanisation the highest?

Ans. 1971 – 1981 was the decade with the highest percentage of urbanisation.

(c) In which decade was the growth the urbanisation lowest?

Ans. 1961-1971 was the decade with the lowest growth in urbanisation.

(d) What inference can you draw regarding India's urbanisation after reading the graph?

Ans.

(i) Urbanisation has occured slowly in India in the last 50 years from 1961 to 2011.

(ii) Urbanisation took place rapidly in 1971 to 1981. i.e. at 51%.

(iii) Urbanisation took place slowly in 1961 to 1971. i.e. at 0.2%.

(iv) Urbanisation in 2011 in India is 31.2%.

(v) The low rate of urbanisation shows that India is lagging behind as compared to developed countries.

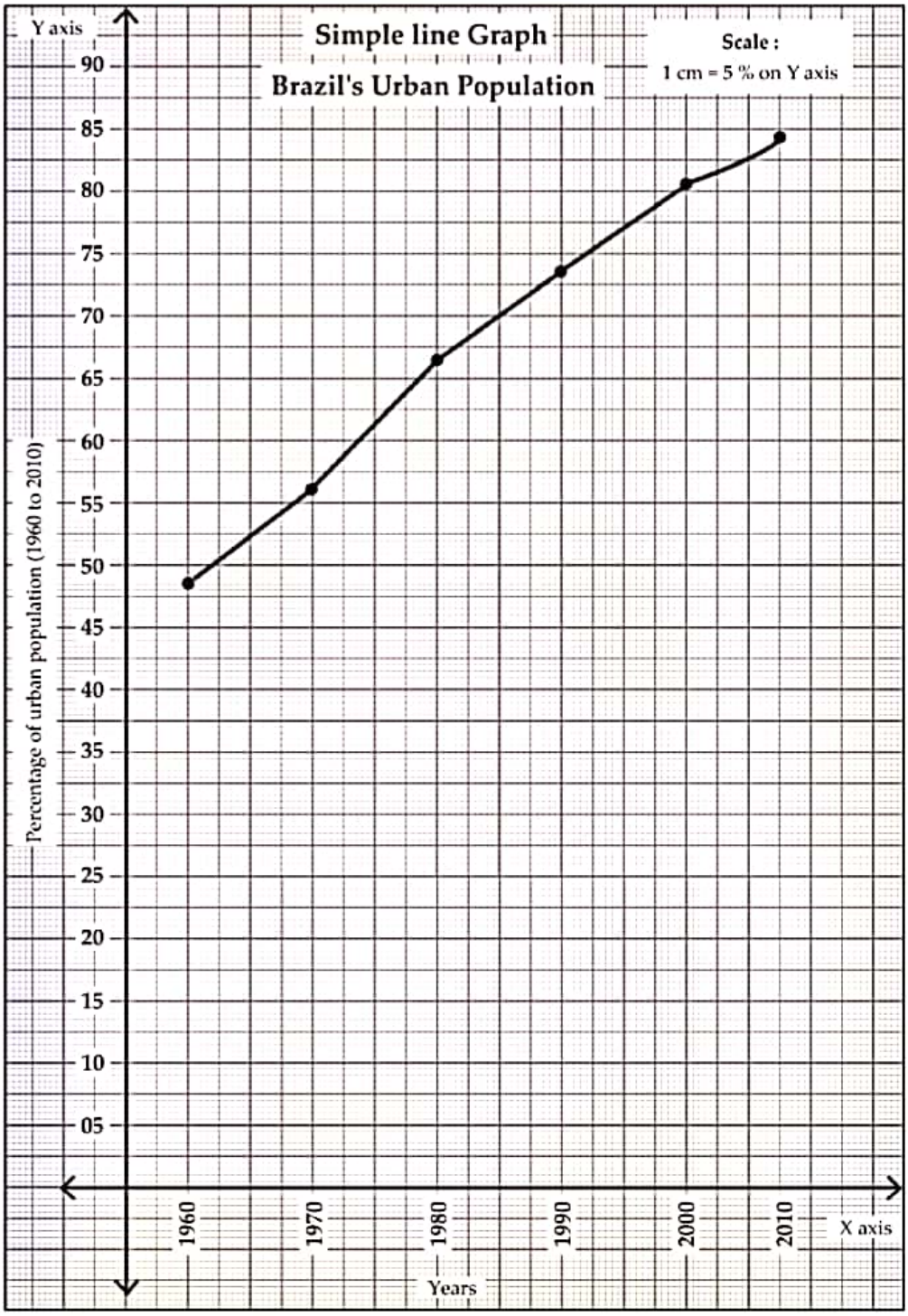
Try this. *(Textbook Page No. 48)*

Look at the table. It shows the growth of share of urban population in total population of Brazil. Draw a line graph from this table. Examine the graph carefully and answer the following questions

Brazil Percentage of urban population (1960 to 2010)

1960	1970	1980	1990	2000	2010
47.1	56.8	66	74.6	81.5	84.6

Ans.



(a) What is the interval of data?

Ans. The interval of the data is 10 years.

(b) In which period did urbanisation occur rapidly?

Ans. Urbanisation occured rapidly in the period 1960-1970.

(c) Write five sentences analyzing the graph.

Ans.

(i) The graph gives as an analysis of urbanisation in Brazil from 1960 to 2010. i.e. 50 years.

(ii) Urbanisation very clearly, has occured rapidly in Brazil at 9.7%

(iii) Urbanisation occured rapidly in the decade 1960 to 1970. When percentage of urbanisation rose from 46.1% to 56.8%.

(iv) Though urbanisation contributed even offer 1970, but its rate of growth has shown a falling trend.

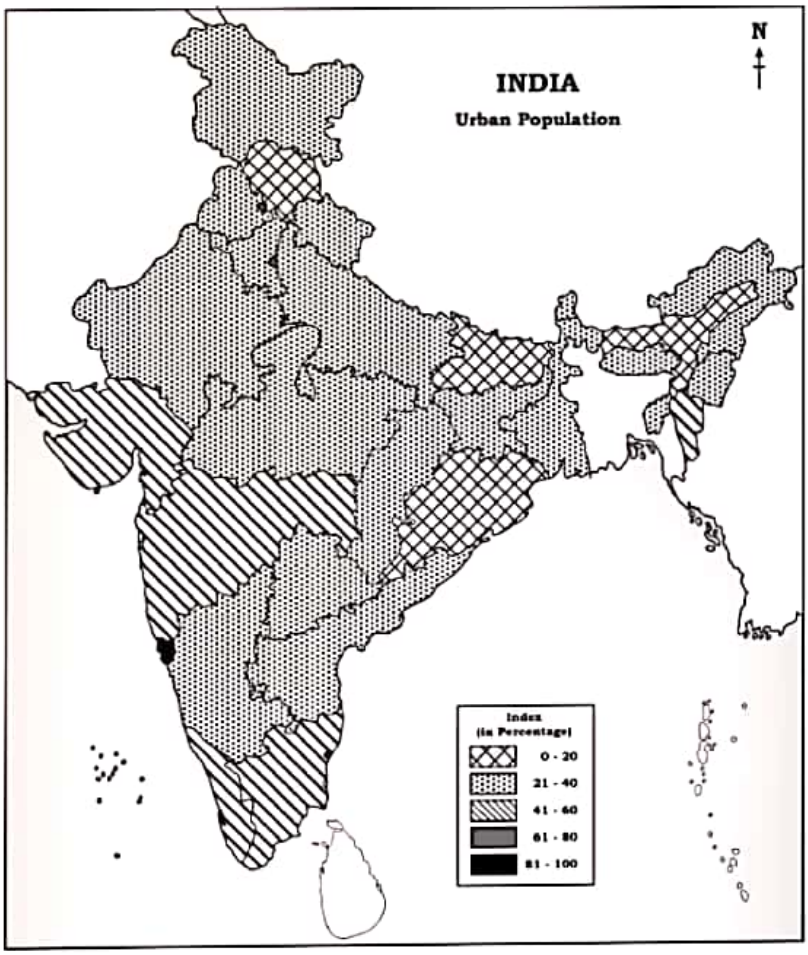
(v) Urbanisation occured very slowly 3.1% and percentage of urnbanisation increase from 81.5% to 84.6% in the decade 2000 to 2010.

Give it a try *(Textbook Page No. 48)*

Prepare a choropleth map showing urban population using the data given in the table below.

Sr. No.	Urban population percentage category	States /UTs falling in the category
1	0 - 20	Himachal Pradesh, Bihar, Assam, Odisha
2	21 - 40	Meghalaya, Uttar Pradesh, Arunachal Pradesh, Chhattisgarh, Jharkhand, Rajasthan, Sikkim, Tripura, Jammu & Kashmir, Nagaland, Manipur, Uttarakhand, West Bengal, Andhra Pradesh, Haryana, A & N Islands, Punjab, Karnataka
3	41 - 60	Gujarat, Maharashtra, Dadra & Nagar Haveli, Kerala, Tamil Nadu, Mizoram
4	61 - 80	Goa, Puducherry, Daman & Diu, Lakshadweep
5	81 - 100	Chandigarh , NCT of Delhi

Ans.



Make friend with maps *(Textbook Page No. 49/50)*

Study the choropleth map of Brazil showing the Statewise urban population of Brazil and answer the following questions

(a) Which State (region) in Brazil is the most urbanised?

Ans. The states of Sao Paulo, Goias, Espirito Santo, Rio De Janeiro and the region of Manus of Brazil have more urban population.

(b) Which State (region) is the least urbanised?

Ans. The states of Para, Maranhao and Piaui of Brazil are least urbanised.

Colours of Both *(Textbook Page No. 49)*

(a) Compare the line graph shown in figure 7.5 and the one drawn by you for Brazil. Write five lines on the changes that have occurred in urbanisation in both the countries, with time.

Ans.

(i) We can observe that urbanisation in India is going on and continuously increasing, but the rate at which it is increasing is very low.

(ii) On the other hand, urbanisation in Brazil is constantly on the rise, but the rate is going on decreasing. Even in 1960, the percentage of urban population was as high as 47.1% which we have not reached, even till date.

(iii) According to the latest development details, India is at 31.2% (2011) whereas Brazil is at 84.6% (2010). Brazil has more than double the percentage of urban population than India.

(iv) Both Brazil and India are developing countries, but Brazil shows very high urbanisation as compared to India.

(b) Make a short note on the comparison between the settlement patterns in India and Brazil (fig 7.1 and 7.2, Textbook page no. 46 and 47) on the basis of the following points:
(i) Location (ii) Pattern (iii) Types (iv) Density

Ans. Fig. 7.1 – India – Settlement patterns

7.1 a.

(i) **Location :** Nucleated settlements are found throughout the plateau region of Narmada Valley, paddy lands in Bihar, U.P, Vindhyan Plateau and several other cultivated parts of India.

(ii) **Pattern :** Nucleated settlements = compete = clustered = agglomerated

(iii) **Types :** Permanent

(iv) **Density :** High population density.

7.1.b.

(i) **Location :** Dispersed settlements are found in tribal parts covering central part of India, eastern and southern Rajasthan, Himalayan slopes and land with dissected and uneven topography.

(ii) **Pattern :** Seasonal dispersed settlements / linear settlements.

(iii) **Types :** Permanent / Temporary / Rural/ Seasonal

(iv) **Density :** High population density.

7.2. Brazilian settlement pattern

7.2.a.

(i) **Location :** The Southern and South Eastern parts of Brazil – Areas where there is good water supply, a large range of natural resources, rich soil, large supply of natural minerals, steady energy supply, a good transport system, etc.

(ii) **Pattern :** Nucleated settlement

(iii) **Types :** Permanent

(iv) **Density :** High population density.

7.2. b.

(i) **Location :** Brazilian Highlands, Central part, Amazon Baisn region : regions with dense forests, unfavourable climate, poor transport limits, limitations on the use and exploitation of natural resources, etc.

(ii) **Pattern :** Sparse settlements / Linear settlements.

(iii) **Type :** permanent / Temporary / Seasonal / Rural.

(iv) **Density:** low population density

Give it try *(Textbook Page No. 49)*

Observe the two satellite images given below. Describe the settlements with respect to physiography. Considering the physiography, where could these settllements be located? Find out their settlement pattern and limitations with respect to their future growth.

Ans.

(i) **Location :** Both satellite images show human settlements in a mountainous region. One settlement is along the slope of the mountain while the other is on top of a mountain.

(ii) **Pattern :** Both are dispersed type of settlements.

(iii) **Future growth :** Further growth for human settlements seens difficult, while considering the first image. This is mainly because of the forested land along the mountain slope.

The second image showcases steps going downwards. There is a danger of landside in these regions and hence here too, the scope of future growth for human settlements is very less.

Use your brain power ! *(Textbook Page No. 50)*

Which factors have affected urbanisation in Brazil?

Ans. In Brazil, rapid corbanisation happened is South and South East Coastal regions.

The North and South Atlantic sea coast these regions immensely.

Availability of water, fertile soil, natural minerals such as iron ore, good transport system, steedy electric supply have positively impacted urbanisation in these parts.

On the other hand northern Brazil is covered with thick dense equatorial rain forests that are inaccessible with poor transport links and unfit climate. So sparse settlements are found here.

North Eastern Brazilian highlands is a rain shadow region with scarce settlements.

To the north of this region is the 'Drought Quadrilateral' with sparse settlements.

Colours of Both *(Textbook Page No. 50)*

Write a paragraph on the settlement pattern, urban and rural settlement and urbanisation in India and Brazil.

Ans. Refer Textbook Pg. 49, Colours of Both answers (i) and (ii)

ASSIGNMENT - 7

Time : 1 Hr. **Marks : 20**

Q.1. Fill in the blanks choosing the most appropriate alternative : **(2)**

(1) ..... settlements are found in tribal parts covering central part of India, eastern and southern Rajasthan, Himalayan slopes and land with dissected and uneven topography.

(a) Nucleated (b) Linear (c) Dispersed (d) Circular

(2) The transport links are poor in the ..... part of Brazil

(a) Eastern (b) Western (c) Northern (d) Central

Q.2. Match the columns: **(2)**

(2) Column 'A'	Column 'B'
(1) Most urbanised state	(a) Bihar and Jammu & Kashmir
(2) Low level of urbanisation	(b) Tamil Nadu and Kerala
(3) More urbanization	(c) Delhi
(4) More than 80% urban	(d) Puducherry
	(e) Goa

Q.3. (A) Name the following : **(2)**

(1) The most urbanised state in India with 62% urban population.

(2) The port on the confluence of the R. Negro and the R. Amazon where urbanisation has occurred.

Q.3. (B) Answer in one or two sentences:

(1) Which factors have affected urbanization in Brazil? *(Use you brain power! Textbook Page No. 50)*

(3) What is Manaus?

Q.4. Study the choropleth map of Brazil showing the Statewise urban population of Brazil and answer the following questions. **(2)**

(1) Which State (region) in Brazil is the most urbanised?

(2) Which state (region) in the least urbanised ?

Q.5. Give geographical reasons: **(4)**

(1) Settlements are sparse in north-eastern Brazil.

(2) Sao Paulo area has nucleated settlements.

Q.6. Answer in Detail: **(6)**

*(1) Write a comparative note on urbanisation in Brazil and India.

*(2) Differentiate between the human settlements in the Ganga river basin and the Amazon river basin.

❖❖❖

8 Economy and Occupations

Points to Remember:

- The economy of a country depends on **the economic activities carried out in the country.**
- You have learnt that there are **3 types of economic activities in an economy.**
- India has a **higher national income than Brazil.**
- Brazil is one of the world giants of **mining. agriculture, and manufacturing; and it has a strong and rapidly growing service sector.**
- India is dependent on **agriculture, though service sector is also increasing in India.**
- Like the Indian economy, **the Brazilian economy is also a mixed economy and a developing economy.**
- Per capita incomes of India, Brazil are very less **as compared to the developed countries like the USA.**
- The United States **is a developed country with a well educated population**
- India and Brazil are **developing countries with a well educated population.**
- The US has the strength of **many patents, modern technology and mechanical strength.**
- India and Brazil are progressing **in the field of technological advancement, education and industry.**
- The national per capita income of these countries **is low.**
- India's per capita income seems to be even lower than Brazil's as **India's size is very large and it has a higher population.**
- In Brazil, **agriculture is the main occupation of the people living in the highlands and coastal areas.**
- This is due to **favourable climate and topography.**
- Rice and maize **are the main cereal crops.**
- Production of maize is **largely concentrated in the central part.**
- Commercial crops like **coffee, cocoa, rubber, soyabean and sugarcane are cultivated on a large scale.**
- Brazil is the **largest exporter of coffee and soyabean in the world.**
- The major states growing coffee are **Minas Gerais and Sao Paulo.**
- Besides these crops, production of fruits like **bananas, pineapples, oranges and other cirtus fruits is also done.**
- Cattle, sheep and goats are also reared in the **Savannah grasslands in the south due to meat and dairy products are produced on a large scale.**
- The eastern part of Brazil is rich in various types minerals like **iron ore, manganese, nickel, copper, of bauxite, tungsten, diamonds, etc.**
- Inaccessibility, lack of knowledge of potential reserves of resources, dense forests, etc. are factors **which have led to limitations in mining in the interior parts of the country.**

- Nevertheless, because of increasing demand in the country, **mining has developed well in the highland region.**
- Brazil has a sea coast of around **7,400 km**
- Brazil has excellent fishing grounds off the **South Atlantic coast.**
- The meeting of **the warm Brazil current and the cold Falkland current off the coast of south-east Brazil makes it a good fishing ground.**
- Traditionally, fishing has been carried on by small groups of individual fishermen using **primitive techniques and equipment.**
- Now, **large vessels are used.**
- Fishes mainly caught are **Swordfish, shrimp, lobsters, sardines are mainly caught.**
- The fish resources of the Amazon River are **not exploited much and fishing takes** place only on a small scale.
- India's agriculture contributes **more towards GDP and also engages a larger chunk of population.**
- Around 60% of land in India is **under cultivation due to many favourable conditions.**
- Indian agriculture has been a long standing activity and is mainly **subsistence type.**
- India produces **rice, wheat, maize, sorghum and millets as major food crops; plantations of tea, coffee, rubber and cash crops like sugarcane, cotton, jute, etc. are also produced.**
- India is also a major producer of a **variety of fruits and vegetables.**
- In the economy of India **Fishing plays an important role**
- India is one of the **largest producers of fish, both marine and inland.**
- Fish forms an important part of the diet of many people living in the coastal areas of **Kerala, West Bengal, Odisha, Andhra Pradesh, Tamil Nadu, Goa and Maharashtra.**
- India has about **7500 kms of coastline.**
- Marine fishing accounts for about **40% of the total annual production of fish**
- Fishing is confined to the coastal waters in the **west from Kachchh, Malabar coast to Coromandal coast in the east.**
- Major fishes are **Sardines, Mackerel, Bombay Duck, and Prawns.**
- On the eastern coast, the important fish are **Horse Mackerels, Clupeids and Silver Bellies.**
- Freshwater fishing is carried on in **rivers, canals, irrigation channels, tanks, ponds, lakes, etc.**
- Major freshwater varieties are **Silver bellies carp (chopda)**
- About 60% of the country's total fish production comes from **inland fisheries.**
- The Chhota Nagpur Plateau in India is a **big storehouse of different minerals.**
- The main occupation of the people there is **minning**
- Coal is mined at **Korba in Chhattisgarh** and in **eastern Maharashtra.**
- Mineral oil wells are found **(i) Digboi in Assam (ii) Mumbai High in the Arabian Sea near Maharashtra (iii) Kalol and Koyali in Gujarat.**
- Reserves of mineral oil and natural gas have been discovered of the mouth of the **river Godavari.**
- Stones like marble are found in **Rajasthan and Cuddapah in Andhra Pradesh.**
- In Brazil, technologically-based industries have been **the most dynamic in recent years, but have not outpaced traditional industries.**

- Most of the large industries are concentrated **in the south and south-eastern parts of Brazil.**
- The North-east is traditionally **the poorest part of Brazil, but is beginning to attract new investment.**
- The distribution of industries in India is **highly uneven.**
- Jharkhand, Odisha, adjoining Chhattisgarh and Madhya Pradesh, parts of Rajasthan, Karnataka and Tamil Nadu account for **most of the reserves of metallic minerals.**
- Particularly the north-eastern part of the peninsula, has a very high concentration of **heavy metallurgical industries with almost all the steel centres situated here.**
- Availability of large quantities of coal and refractory materials, along with cheap power from **the Damodar-Valley Corporation and a number of thermal power projects, has added to the advantages.**
- Rajasthan **has copper, lead and zinc;**
- Karnataka **has steel, manganese and aluminium; and**
- Tamil Nadu **has aluminium metal industries.**
- Agro-based industries including cotton, jute and sugar are **heavily concentrated in the raw material-producing areas.**
- The forest-based industries including paper, ply wood, matches, resins and lac are **increasingly finding concentration in the forest areas of various states.**
- The coastal belt of Kerala has a heavy concentration of **coir, copra (coconut) and fish canning industries.**
- Koyali, Digboi, Noonmati and Bongaigaon refineries are situated **close to the petroleum producing areas**
- Mathura and Barauni refineries in the interior are, **away from the coast and oil-producing areas.**
- The distribution of cement industry is also highly conditioned **by the availability of raw materials.**
- Gujarat, Rajasthan and Tamil Nadu produce **the bulk of salt in the country.**
- Brazil mainly exports **iron ore, coffee, cocoa, cotton, sugar, tobacco, oranges and bananas**
- While it imports **machinery, chemical products, fertilisers, wheat, heavy vehicles, mineral oil and lubricants.**
- Major trading partners are **Germany, the USA, Canada, Italy, Argentina, Saudi Arabia and India.**
- Trade makes up about **25% of the GDP.**
- India mainly exports **tea, mangoes, coffee, spices, leather and leather goods, iron ore, cotton and silk textiles**
- While it mainly imports **petroleum, machines, pearls and precious stones, gold and silver, paper, medicines, etc.**
- India's major trading partners are the **UK, the USA, Germany, Japan, China, Russia, etc.**
- Indian companies set up industrial centres **all over Brazil and invested a lot at capital.**
- The Indian companies have invested in such sectors as **IT, pharmaceuticals, energy, agri-business, mining, engineering and auto sectors.**
- Brazil's footprint in India **is smaller but important.**
- The Brazilian companies have invested in **automobiles, IT, mining, energy, biofuels, and footwear sectors in India.**

MASTER KEY QUESTION SET – 8

Q.1. Fill in the blanks with the most appropriate alternative:

*(1) India's per capita income is less than Brazil due to ..... .
(a) low national income (b) massive population
(c) big family size
(d) low foodgrain production

*(2) The economy of Brazil is mainly dependent on the ..... activities there.
(a) primary (b) secondary
(c) tertiary (d) quaternary

*(3) The economies of India and Brazil are of the ..... type.
(a) undeveloped (b) developed
(c) developing (d) highly developed

(4) India has a /an ..... national income as compared to Brazil.
(a) higher (b) lower (c) equal (d) very low

(5) In Brazil, ... is the main occupation of the people living in the highlands and coastal areas.
(a) agriculture (b) mining
(c) animal rearing (d) sericulture

(6) The main cereal crops grown in Brazil are ..... and maize.
(a) wheat (b) barley (c) oat (d) rice

(7) Production of maize is largely concentrated in the ..... part of Brazil.
(a) western (b) northern (c) southern (d) central

(8) Brazil is the largest exporter of coffee and ..... in the world.
(a) rubber (b) cocoa (c) soyabean (d) maize

(9) The major states growing coffee are ..... and Sao Paulo.
(a) Rio de Janeiro (b) Minas Gerais
(c) Para (d) Parana

(10) Coffee farns are called ..... in Brazil
(a) para (b) fazendas
(c) Cerrado (d) Savannah

(11) Cattle, sheep and goats are reared in the ..... of the South of Brazil.
(a) Amazon basin (b) Parana River basin
(c) Savannah grasslands (d) Coastal areas

(12) The eastern part of Brazil is rich in various types of ..... .
(a) crops (b) animals (c) minerals (d) forests

(13) Inaccessibility, lack of knowledge of potential reserves, dense forests are factors which have led to limitation in ..... in the interior parts of the country.
(a) agriculture (b) mining
(c) agro- forestry (d) fishing

(14) Due to the increasing demand in the country, mining has developed well in the ..... region.
(a) coastal (b) highland
(c) mountainous (d) equatorial forest

(15) Brazil has a sea coast of around 7,400 km and excellent fishing grounds off the ..... coast.
(a) South Atlantic (b) North Atlantic
(c) South Pacific (d) North Pacific

(16) The meeting of the warm Brazil current and the cold Falkland current off the coast of South-east Brazil make it a good ..... .
(a) fishing ground (b) offshore oil rig
(c) ocean transport route
(d) fishermen's settlement

(17) Traditionally, in Brazil, fishing has been carried on by small groups of individual fishermen using ..... techniques and equipment.
(a) scientific (b) modern
(c) primitive (d) latest

(18) The fish resources of the ..... River are not exploited much and fishing only takes place on a small scale.
(a) Parana (b) Sao Francisco
(c) Paraguay (d) Amazon

(19) Around 60% of land in India is under .....
(a) cultivation (b) industries
(c) forestry (d) mining

(20) Indian agriculture is mainly ..... types.
(a) commercial (b) mechanized
(c) subsistence (d) extensive

(21) In the coastal areas of India, ... forms an important part of the diet of many people.
(a) wheat (b) fish (c) lobsters (d) millets

(22) Horse mackerels, clupeids and silver bellies are important varieties of ..... .
(a) crops (b) fish (c) millets (d) cereals

(23) Among the freshwater varieties of fish, ... is a major one.
(a) Sardines (b) Mackerel
(c) Bombay Duck
(d) Silver Bellies Carp (Chopda)

(24) In India, the ..... plateau is a big store house of minerals.
(a) Malwa (b) Bundelkhand
(c) Baghelkhand (d) Chhota Nagpur

(25) Coal is mined in ..... in Chhattisgarh and in eastern Maharashtra.
(a) Korba (b) Cuddapah (c) Digboi (d) Kalol

(26) Mineral oil wells are found in ..... in Assam.
(a) Korba (b) Koyali (c) Digboi (d) Kalol

(27) Reserves of mineral oil and natural gas have been discovered at the mouth of the river .....
(a) Krishna (b) Kaveri
(c) Godavari (d) Mahanadi

(28) Stones like marble are found in Rajasthan and Cuddapah in ..... .
(a) Andhra Pradesh (b) Arunachal Pradesh
(c) Himachal Pradesh (d) Uttar Pradesh

(29) Traditionally, the poorest part of Brazil is the ..... .
(a) north-east (b) south
(c) north-west (d) central

(30) The north-eastern part of the Indian Peninsula has a very high concentration of ..... industries.
(a) chemical (b) metallurgical
(c) canning (d) fruit processing

(31) The coastal belt of ..... has a heavy concentration of coir, copra and fish canning industries.
(a) Kerala (b) Goa
(c) Karnataka (d) Maharashtra

(32) Many refineries are situated close to the petroleum producing areas whereas Mathura and ..... refineries are in the interior, away from the oil producing areas.
(a) Digboi (b) Bongaigaon
(c) Barauni (d) Koyali

(33) Among the minerals, Brazil mainly exports ..... .
(a) coal (b) gold
(c) iron ore (d) manganese

(34) The main trading partner of Brazil amang the Gulf countries is ..... .
(a) Bahrain (b) Saudi Arabia
(c) Kuwait (d) Iran

(35) India's major trading partners from the continent of Europe are the UK and ..... .
(a) Italy (b) France (c) Germany (d) Greece

Ans. *(1) massive population (2) tertiary (3) Developing (4) a higher (5) agriculture (6) rice (7) central (8) soyabean (9) Minas Gerais (10)* fazendas *(11) Savannah grasslands (12) minerals (13) mining (14) highland (15) South Atlantic (16) ishing ground (17) primitive (18) Amazon (19) cultivation (20) subsistence (21) fish (22) fish (23) Silver Bellies Carp (Chopda) (24) Chhota Nagpur (25) Korba (26) Digboi (27) Godavari (28) Andhra Pradesh (29) north east (30) metallurgical (31) Kerala (32) Barauni (33) iron ore (34) Saudi Arabia (35) Germany*

Q.2. (A) Match the columns:

(1)	Column `A'		Column `B'
(1)	Rice and maize	(a)	Commercial crops of Brazil
(2)	Tea and mangoes	(b)	cereal crops of Brazil
(3)	Cotton and jute	(c)	India's imports
(4)	Coffee, cocoa, rubber , soyabean	(d)	India's exports
		(e)	India's cash crops

Ans. *(1 - b), (2 - d), (3 - e), (4 - a)*

(2)	Column `A'		Column `B'
(1)	Kachchh	(a)	Kerala
(2)	Coromandal coast	(b)	North east India
(3)	Malabar coast	(c)	Near Maharashtra
(4)	Mumbai High	(d)	South East India
		(e)	Western coast

Ans. *(1 - e), (2 - d), (3 - a), (4 - c)*

(3)	Column `A'		Column `B'
(1)	Cheap power	(a)	Karnataka
(2)	Copper, lead, zinc	(b)	Tamil Nadu
(3)	Steel, manganese, aluminium	(c)	Kerala
(4)	Aluminium metal industries	(d)	Damodar Valley
(5)	Coir, copra and fish canning	(e)	Rajasthan
(6)	Salt	(f)	Assam
(7)	Oil refineries	(g)	Gujarat
		(h)	Meghalaya
		(i)	Barauni

Ans. *(1 - d), (2 - e), (3 - a), (4 - b), (5 – c), (6 – g), (7 – i)*

(4) Connect the chain after matching the details.

Column 'A'	Column 'B'	Column 'C'
(1) Coal	(a) Digboi	(i) Andhra Pradesh
(2) Mineral oil well	(b) Coastal belt	(ii) Chhattisgarh
(3) Stones	(c) Korba	(iii) Kaveri
(4) Mineral oil and Natural gas	(d) River mouth	(iv) Assam
(5) Coir and copra	(e) Cuddapah	(v) Godavari
	(f) Estuary	(vi) Kerala

Ans. *(1 – c - ii), (2 – a - iv), (3 – e - i), (4 – d - v), (5 – b – vi)*

Q.2. (B) Name the following

(1) Factors making it possible for growing a variety of crops in Brazil.

Ans. Favourable climate and topography.

(2) The main cereal crops of Brazil.

Ans. Rice and Maize

(3) The production of this cereal crop is largely concentrated in the central part of Brazil.

Ans. Maize

(4) The major commercial crops of Brazil.

Ans. Coffee, cocoa, rubber, soyabean and sugarcane,

(5) The largest exporter of coffee and soyabean in the world.

Ans. Brazil

(6) The major coffee growing states of Brazil.

Ans. *Minas Gerais and Sao Paulo*

(7) Fruits grown in Brazil.

Ans. Bananas, Pineapples, Oranges and other citrus fruits,

(8) The region in Brazil where cattle, sheep and goats are reared.

Ans. Savannah grasslands in the south

(9) Two factors that have led to limitations in mining in the interior parts of the country.

Ans. (i) Inaccessibility due to dense forests. (ii) Lack of knowledge of potential reserves of resources.

(10) The warm current in the eastern coast of Brazil.

Ans. Brazil current

(11) The cold current off the south-eastern coast of Brazil.

Ans. Falkland current

(12) The main catches of the fishermen.

Ans. Swordfish, shrimp, lobsters, sardines

(13) Major food crops produced in India.

Ans. Rice, wheat, maize, sorghum and millets

(14) Crops grown in plantations in India.

Ans. Tea, coffee, rubber

(15) Major cash crops grown in India.

Ans. Sugarcane, cotton, jute,

(16) Main type of Indian agriculture.

Ans. Subsistence

(17) Major fish varieties found in the western coastal region of India.

Ans. Sardines, Mackerel, Bombay Duck and Prawns

(18) The important varieties of fish on the eastern coast of India.

Ans. Horse mackerels, clupeids, silver bellied carp

(19) The major freshwater fish variety.

Ans. Silver bellies carp (chopda)

(20) Places where coal is mined in India.

Ans. Korba in Chhattisgarh and in Eastern Maharashtra

(21) Places where mineral oil wells are found in India.

Ans. (i) Digboi in Assam (ii) Mumbai High in the Arabian Sea near Maharashtra (iii) Kalol and Koyali in Gujarat.

(22) The name of the river at whose mouth, reserves of mineral oil and natural gas have been discovered.

Ans. River Godavari.

(23) The state where stones like marble are found.

Ans. Rajasthan

(24) The place / state where stones like Cuddapah are found.

Ans. Cuddappah in Andhra Pradesh state

(25) The states in which fish forms an important part of the diet of many people living in the coastal areas.
(Note - that Karnataka and Gujarat are not included in this list)

Ans. Kerala, West Bengal, Odisha, Andhra Pradesh, Tamil Nadu, Goa and Maharashtra

(26) States of India where metallic minerals are found.

Ans. Jharkhand, Odisha, adjoining Chhattisgarh and Madhya Pradesh, parts of Rajasthan, Karnataka and Tamil Nadu,

(27) The Agro-based industries in India which are heavily concentrated in the raw material-producing areas.

Ans. Cotton, jute and sugar

(28) The forest- based industries in India.

Ans. Paper, plywood, matches, resins and lac

(29) Industries found in the coastal belt of Kerala in India.

Ans. Coir, copra and fish canning

(30) Refineries in India situated close to the petroleum-producing areas.

Ans. Koyali, Digboi, Noonmati and Bongaigaon

(31) Refineries in India located away from the coast and oil-producing areas.

Ans. Mathura and Barauni

(32) Major salt-producing states in India.

Ans. Gujarat, Rajasthan and Tamil Nadu

(33) Brazil's export items.

Ans. Iron ore, coffee, cocoa, cotton, sugar, tobacco, oranges and bananas

(34) Brazil's import items.

Ans. Machinery, chemical products, fertilizers, wheat, heavy vehicles, mineral oil and lubricants

(35) Major trading partners of Brazil.

Ans. Germany, the USA, Canada, Italy, Argentina, Saudi Arabia

(36) India's export items.

Ans. Tea, coffee, mangoes, spices, leather & leather goods, iron ore, cotton & silk textiles

(37) India's import items.

Ans. Petroleum, machines, pearls and precious stones, gold and silver, paper, medicines, etc.

(38) India's major trading partners.

Ans. The USA, The UK, Germany, Japan, China, Russia. etc.

Q.3. Distinguish between:

(1) The Indian companies' investment in Brazil and Brazil's investment in India.

Indian investment in Brazil	Brazilian investment in India
(i) IT, Pharmaceuticals, energy, agri-business, mining, engineering and auto sectors	(i) Automobiles, IT, mining, energy, biofuels, footwear sectors in India

(2) The varieties of aquatic animals found in Brazil and India.

Ans.

Brazil	India
(i) Swordfishes, Shrimps, Lobsters, Sardines.	(i) Sardines, Mackerels, Bombay Ducks, Prawns, Bilver Balies, Crab

(3) The import - export items of Brazil and India, including their major trading partners.

Brazil	India
(i) Brazil mainly exports iron-ore, coffee, cocoa, cotton, sugar, tobacco, oranges and bananas.	(i) India mainly exports tea, coffee, mangoes, spices, leather and leather goods, iron ore, cotton and silk textiles.
(ii) It imports machinery, chemical products, fertilizers, wheat, heavy vehicles, mineral oil and lubricants.	(ii) It mainly imports petroleum, machines, pearls, precious stones, gold and silver, paper, medicines, etc.
(iii) Major trading partners are Germany, the USA, Canada, Italy, Argentina, India and Saudi Arabia	(iii) Major trading partners are the USA, the UK, Germany, Japan, China, Russia, etc.

(4) USA (as a developed economy) and India and Brazil (as developing economies)

The USA	Brazil and India
(i) The USA is a developed country.	(i) India and Brazil are developing countries.
(ii) The population of this country is well-educated. The USA has the strengths of many patents, modern technology and mechanical strength.	(ii) These countries are progressing in the fields of technological advancements, education and industry.

(iii) The USA is far ahead of Brazil and India in terms of National Income and Per Capita Income.	(iii) The National Income and Per Capital Income of India and Brazil is low. India seems to have an even lower per capita income, as compered to Brazil due to its very large. large population.

Q.4. (A) Mark the following on the outline map:

(1) On the given blank map of Brazil, show the following:

(1) The major states growing coffee (in Brazil)

(2) The cold and warm ocean current near the Brazilian coast.

1. The major states growing coffee

2. Falkland cold ocean current
   Brazil warm ocean current

(2) Indicate the following on a map of India,

(1) The plateau region rich is minerals.

(2) The places where coal is mined in India.

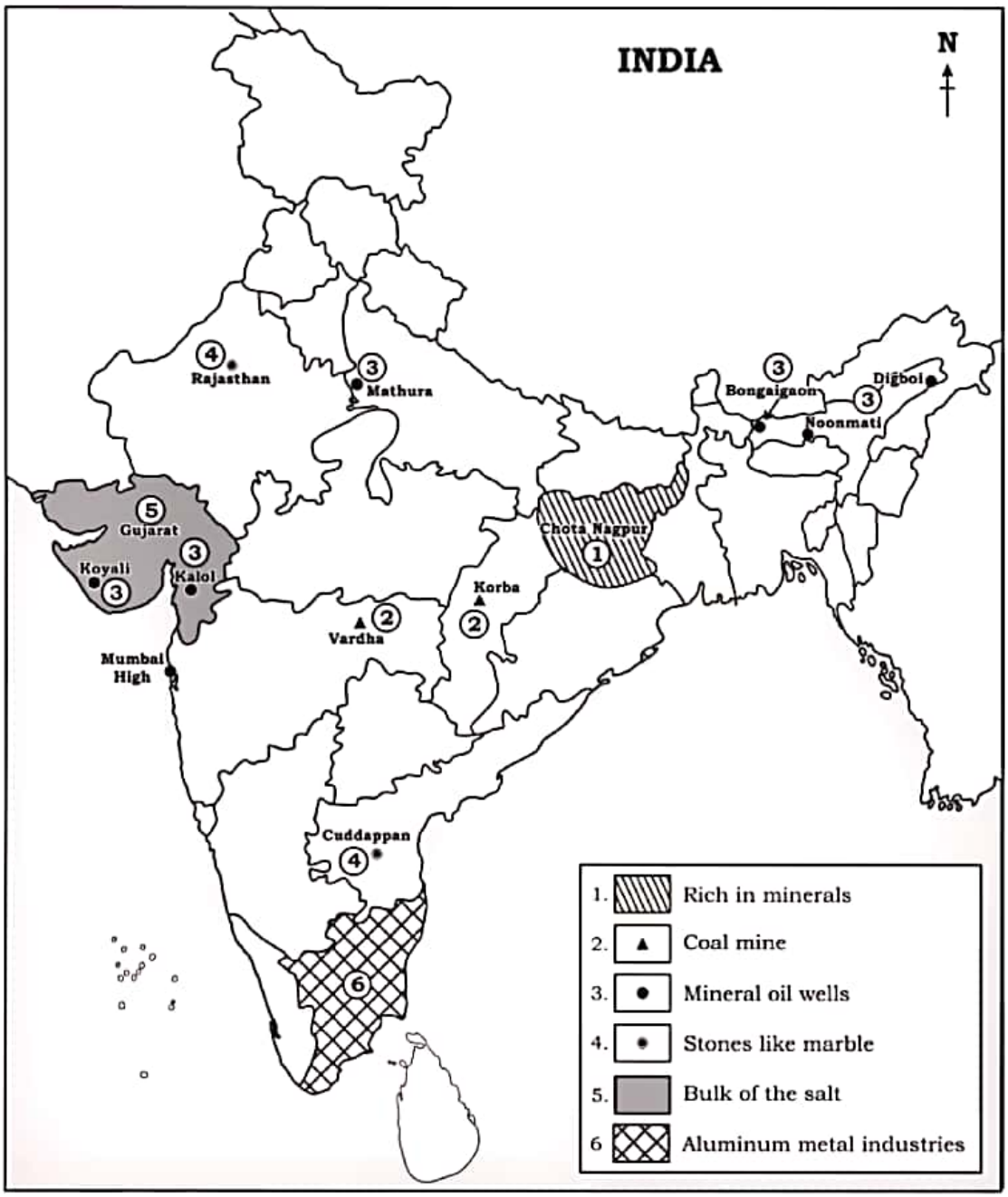
(3) Places where mineral oil wells are found.

(4) The states where stones like marble are found.

(5) States producing bulk of the salt in the country.

(6) The State that has aluminum metal industries.

Ans.



(3) Indicate the following on a map of India,

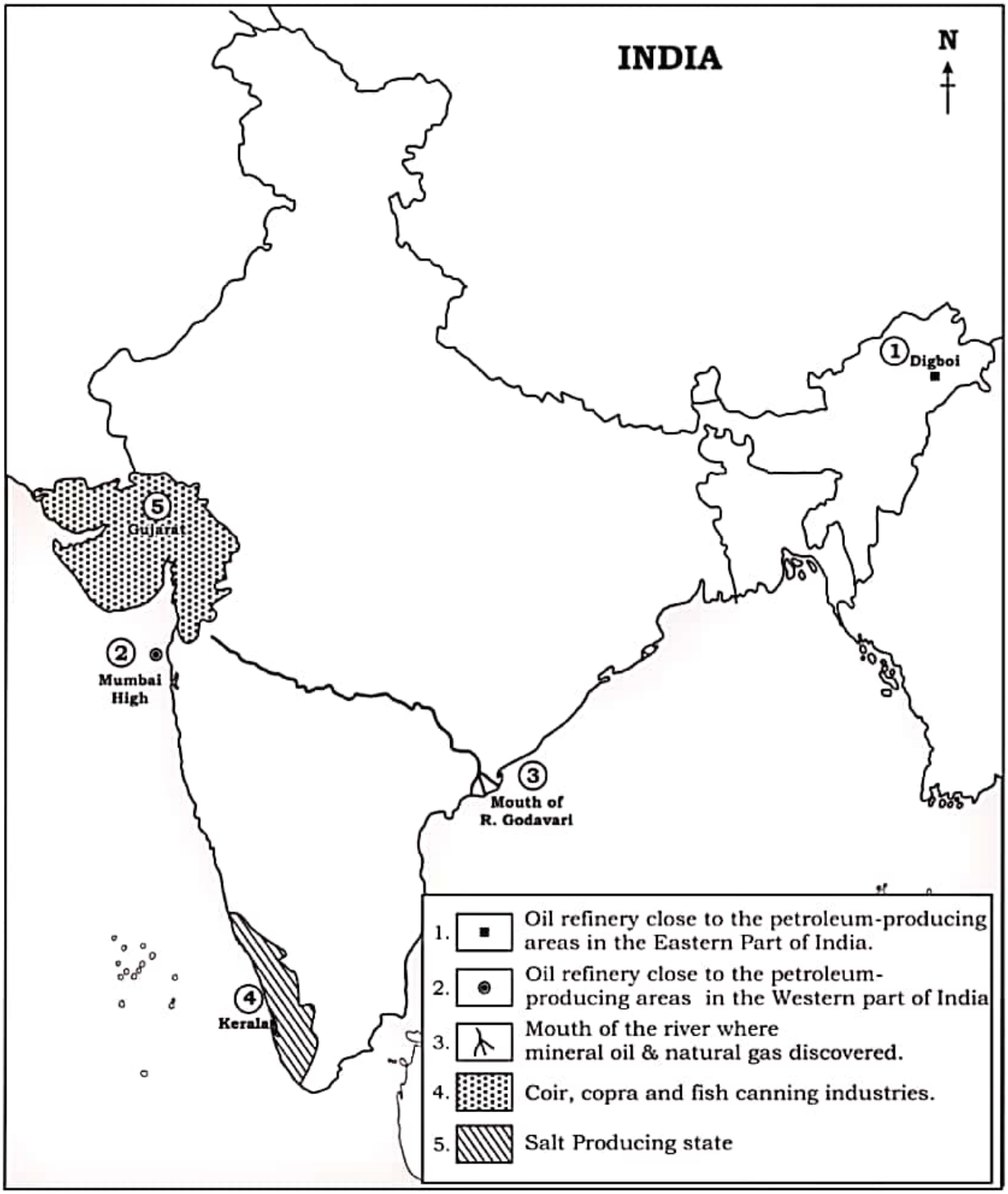
(1) Oil refinery situated close to the petroleum-producing areas in the Eastern Part of India.

(2) Oil refinery situated close to the petroleum- producing areas in the Western part of India.

(3) The mouth of the river where reserves of mineral oil and natural gas have been discovered.

(4) The State whose coastal belt has a concentration of coir, copra and fish canning industries.

(5) Major Salt Producing state.



***Q.4. (B) Study the following graph and analyse in short.**

(Refer figure to Textbook Page No. 60)

Ans.

(i) The given graph shows the contribution of Primary, Secondary, Tertiary sectors to India and Brazi's National Income.
Also the Percentage of Population of both the countries engaged in these sectors is shown.

(ii) Both India and Brazil have the Tertiary Sector as a major contributor to their National Incomes. But, in comparison, India has a lesser contribution of approx 57% as compared to that of Brazil's Tertiary Sector of approx 67%.

(iii) The contribution of the Secondary Sector towards India's National Income is approx 26% which is slightly lesser than that of Brazil's approx. 27.5%. Thus they have almost the same percentage of contribution by the Secondary Sector towards the National Income.

(iv) India's Primary Sector contributes a much higher percentage towards its National Income of about 17% as compared to that of Brazil's Primary Sector contribution of 5.5%.

(v) Only about 24% of India's population is engaged in Tertiary Sector whereas approx. 71% Brazil's population is engaged in its Tertiary Sector.

(vi) The percentage of people engaged in India's Secondary Sector is 24%. The percentage of people engaged in the Brazil's Secondary Sector is approx. 19%.

(vii) 49% of India's population is engaged in the activities related to the Primary Sector whereas Brazil's population engaged in the Primary Sector activities is only approx. 10%.

All the above factors indicate that Brazil's economy is a more developed one than India's economy.

Q.5. Give Geographical Reasons :

***(1) Per capita land availability is more in Brazil as compared to India.**

Ans.

(i) India occupies 2.4% land area of the world and supports 17.5% of the world's total population.

(ii) Brazil occupies 5.6% of land area of the world and supports 2.75% of the world's total population.

(iii) Average density of population in India is about 382 persons per sq. km. (2011 census).

(iv) While average density of population in Brazil is around 23 persons per sq. km. (2010 census).

(v) Brazil's population is lesser than India, and it occupies a larger land area than India.
So, the per capita land availability is more in Brazil as compared to India.

***(2) There is mixed economy in Brazil and India.**

Ans.

(i) A mixed economy has co-existence of both, public and private sector and a balance is maintained between social welfare and profit maximisation.

(ii) India and Brazil got freedom from years of British and Portuguese colonialism.

(iii) Both are developing countries with very low Gross National Income and Per Capita Income.

(iv) To uplift scores of the weaker sections of the society, various government programmes are implemented and at the same time the spirit of entrepreneurship is encouraged.
Hence, both Brazil and India are mixed economies.

(3) Unlike Brazil, India's agriculture contributes more towards the GDP.

Ans.

(i) Around 60% of land in India is under cultivation.

(ii) India also engages a larger chunk of population in agriculture.

(iii) In India, agriculture has been a long standing activity.

(iv) Its enormous expanse of level plains, rich soils, high percentage of cultivable land, wide climatic variety, long growing season, etc. provide a strong base for agriculture.
So, Unlike Brazil, India's agriculture contributes more towards the GDP.

(4) Fishing plays an important role in the economy of India.

Ans.

(i) India has about 7500 kms. of coastline.

(ii) Marine fishing accounts for about 40% of the total annual fish production and the remaining 60% is by freshwater fishing / inland fisheries carried on in rivers, canals, irrigation channels, tanks, ponds, lakes, etc.

(iii) India is one of the largest producers of fish, both marine and inland.

(iv) Fish forms an important part of the diet of many people living in all the coastal states except Gujarat.

(v) Fisheries help in augmenting food supply, generating employment, raising nutritional level and earning foreign exchange.
Thus, fishing plays a significant role in the economy of the country.

(5) The distribution of industries in India is highly uneven.

Ans. The distribution of industries is India in highly uneven due to the following reasons :

(i) Uneven distribution of the necessary raw materials and power resources.

(ii) There is concentration of enterprises, financial resources and other necessary conditions in large towns.

(6) The North Eastern part of the Indian Peninsula has a very heavy concentration of heavy metallurgical industries.

Ans. The North Eastern part of the Indian Peninsula has a very heavy concentration of heavy metallurgical industries because of the following reasons :

(i) The north-eastern part of the Indian Peninsula particularly Chattisgarh, Odisha, Jharkhand, West Bengal is rich in minerals.

(ii) Large quantities of Coal Deposits are available hare.

(iii) Refractory materials, Cheap Power from the Damodar Valley Corporation and a number of thermal power projects has further added to the advantages.

(iv) Availibity of Cheap Labour.

(7) The USA is a developed country.

Ans. The United States is a developed country because:

(i) The population of this country is less and well educated.

(ii) This country has the strength of many patents, modern technology and mechanical strength.

(iii) This country is far ahead of Brazil and India in terms of national per capita income.

(8) Brazil is a good fishing ground.

Ans. Brazil is a good fishing ground because :

(i) Brazil has a sea coast of around 7400 kms.
It has excellent fishing grounds off the South Atlantic coast.

(ii) The meeting of the warm Brazil current and the cold Falkland current off the coast of South-East Brazil makes it a good fishing ground.

(iii) There is a continental shelf off the South Atlantic coast.

Q.6. Answer in Detail

***(1) Why has mining not developed in the western part of Brazil?**

Ans.

(i) The western part of Brazil is mainly covered by the Amazon Basin which is unfit for human settlement.

(ii) Inaccessibility, poor transport links, unfavourable climate, heavy rainfall are the main barriers.

(iii) Moreover, lack of knowledge of potential reserves of resources, etc. is the other factor which has led to limitations in mining in the western part of Brazil.

(iv) Due to all these reasons, mining is not developed in the western part of Brazil.

***(3) What are the similarities and differences in the fishing activities in Brazil and India.**

Ans.

Similarities in the fishing activities in Brazil and India

(i) **Long Coastline :** Both Brazil and India have a long coastline of about 7400 kms and 7500 kms respectively which is favourable for fishing activities.

(ii) **Important for the Economy :** Fishing is important for the economies in both the countries as it helps in a augmenting food supply, raising nutritional levels, generating employment and earning foreign exchange.

(iii) **Marine Fishing :** In both the countries, marine fishing has well developed.

Differences in the fishing activities in Brazil and India

(i) **Types of Fishing :** Marine fishing and inland fishing are the two types of fishing
Brazil undertakes marine fishing on a large scale
Inland fishing is not developed, even though large numbers of rivers are there in Brazil.
In India, marine fishing contributes to 40% of its total annual fish production and inland fishing contributes 60% of its total annual fish production.

(ii) **Major Fishes :**
In Brazil, swordfish, shrimps, lobsters and sardines are mainly caught.
The major fishes in India's western coast are sardines, mackerel, Bombay Duck and prawns. On the eastern coast horse mackerels, clupeids and silver bellies are mainly caught.

Q.7. Write Short notes on:

(1) Mining in India

Ans. The Chhota Nagpur plateau in India is a big storehouse of different minerals. Mining is the main occupation of the people there.

(i) Coal

(a) Coal is mined in Korba in Chattisgarh and in Eastern Maharashtra.

(ii) Mineral Oil

(a) Mineral oil wells are found in Digboi in Assam, Mumbai High in the Arabian Sea near Maharashtra, Kalol and Koyali in Gujarat.

(b) Reserves of mineral oil and natural gas have been discovered at the mouth of the river Godavari.

(iii) Stones

(a) Stones like marble are found in Rajasthan and Cuddapah in Andhra Pradesh.

(2) Industries in Brazil

Ans.

(i) Major industries include iron and steel production, automobile assembly, petroleum processing, chemical production, and cement making

(ii) Technologically based industries have been the most dynamic in recent years, but have not outpaced traditional industries.

(iii) Similarly, food-processing like sugar industries, cotton textiles, silk and woollen industries have developed well.

(iv) Most large industries are concentrated in the south and south-east.

(3) Agro-based and forest-based industries in India.

Ans.

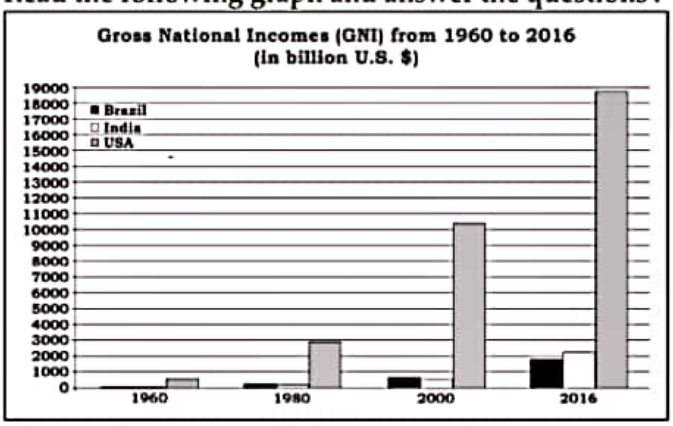
(i) **Agro-based industries :** The agro-based industries including cotton, jute and sugar are heavily concentrated in the raw material-producing areas.

(ii) **Forest-based industries :** The forest based industries including paper, ply wood, matches, resins and lac are increasingly finding concentration in the forest areas of various states.

(iii) **Industries in Kerala :** The coastal belt of Kerala has a heavy concentration of coir, corpra and fish canning industries.

GIVE IT A TRY *(Textbook Page No. 52)*

Read the following graph and answer the questions :



(Source : https://en.wikipedia.org/wiki/List_of_countries_by_GDP_(nominal) - As per the United Nations (2016))

(a) Which country's national income was the highest in 2016 and how much was it?

Ans. The U.S.A. had the highest national income in 2016. It was approx. U.S. $ 18000 billion / U.S. $ 18 trillion.

(b) Comparing India and Brazil, which country had a higher national income in 1980?

Ans. Brazil had a higher national income in 1980, as compared to India.

(c) Comparing India and Brazil, which country had a higher national income in 2016?

Ans. India had a higher national income in 2016, as compared to Brazil.

(d) Tell the difference between the GNP of Brazil and India in 2016.

Ans. The difference between the GNP of Brazil and India in 2016 was approx. U.S. $ 300 billion.

(e) Calculate the difference between the national incomes of developed and developing countries in 2016.

Ans. The difference between the national incomes of developed and developing countries in 2016 was around U.S. $ 16000 billion / U.S. $ 16 trillion.

TRY THIS *(Textbook Page No. 52)*

A table regarding the ownership of various sectors in both the countries is given. Like Brazil, fill the details regarding India and complete the table.

Ans.

India	Sector	Brazil
Private and Public both	Banking	Private and Public both
Public	Railways	Private and Public both
Private and Public both	Airways	Private and Public both
Private and Public both	Electricity production	Largely Public
Largely public	Iron and Steel Industry	Largely Public
Private and Public both	Health	Private and Public both
Private and Public both	Education	Largely public, little private
Private and Public both	Telecomm-unications	Private and Public both

LET'S RECALL. *(Textbook Page No. 52)*

Classify the following activities by ticking (√) in the respective column :

Ans.

	Activities	Primary	Secondary	Tertiary
(1)	Television Broadcasting			√
(2)	Bee-keeping	√		
(3)	Coir and Rope making		√	
(4)	Jaggery - making		√	
(5)	Producing blades of the plough		√	
(6)	Construction		√	
(7)	Extracting Iron Ore	√		
(8)	Automobile Production		√	
(9)	Rice Production	√		
(10)	Teaching			√
(11)	Driving buses			√
(12)	Providing lodging and boarding facilities			√

ACTIVITY *(Textbook Page No. 53)*

***(2) Look at the pie-charts carefully and answer the following questions:**

(Refer figure to Textbook Page No. 53, Fig 8.2)

(a) Which country has a higher percentage of population engaged in primary activities?

Ans. India - (48.8%) has a higher percentage of population engaged in primary activities.

(b) In which country is the contribution of tertiary sector greater in the GDP?

Ans. Brazil - (67%) has greater contribution of tertiary sector in the GDP.

(c) In which country is the share of secondary activities more in the GDP?

Ans. Brazil - (27.5%) has more share of secondary activities in the GDP.

(d) Can we say that Brazil is an agrarian economy like India? Give reasons.

Ans.

(i) Brazil is not an agrarian economy like India.

(ii) Its tertiary sector contributes 67% in GDP and 71% of its population is engaged in the tertiary sector.

(e) What is the contribution of secondary activities in Brazil's GDP? *(Let's recall : Textbook page 56)*

Ans. Secondary sector contributes 27.5% to Brazil's GDP.

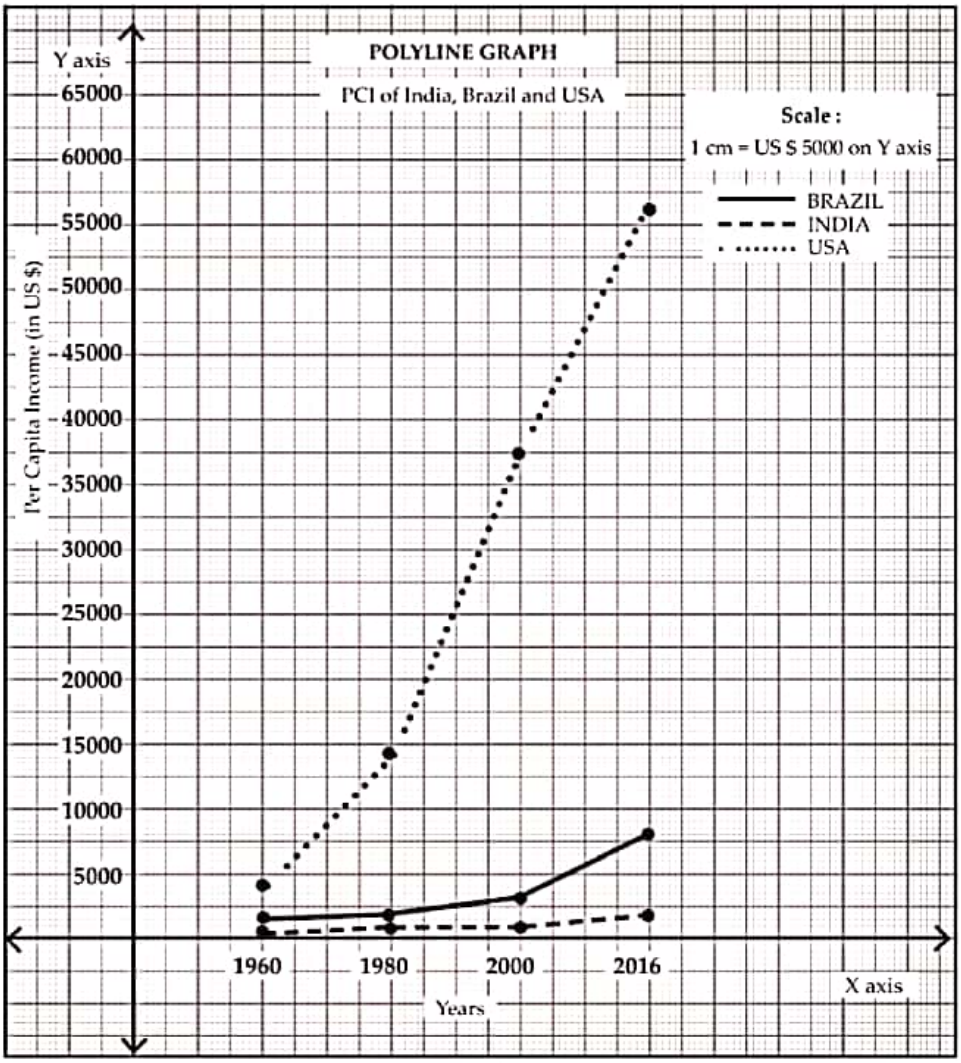
ACTIVITY *(Textbook Page No. 53)*

Use the following table and make a polyline graph with the help of computer.

Per Capita Income from 1960 to 2016 (in US $)

Country Name/Year	1960	1980	2000	2016
Brazil	240	2010	3060	8840
India	90	280	450	1680
USA	3250	14230	37470	56280

Ans.



THINK ABOUT IT *(Textbook Page No. 53)*

Which type of occupations gives a boost to the development of a country's economy?

Ans. Tertiary occupations give a boost to the development of a country's economy.

MAKE FRIENDS WITH MAPS!

(Textbook Page No. 58)

(Refer to Textbook Page No. 54, Fig 8.3)

Look at the map given in Fig. 8.3. The major primary occupations in Brazil are shown here. Discuss the following points and write your observations.

(a) In which part of Brazil is coffee mainly produced?

Ans. Coffee is mainly produced in the South and

(b) Which food crops are mainly produced in Brazil?

Ans. Rice, soyabean and corn are the food crops mainly produced in Brazil.

(c) Can you relate the production of these crops with the climate there?

Ans. Yes.

(d) Where are the rubber plantations concentrated?

Ans. The rubber plantations are concentrated in the North Western part in the Amazon River Basin area.

(e) Complete the table.

Ans.

Types of crops	Crops	Areas of Prodution
Food crops	Corn / Maize	Central part
	Rice	North Eastern & South Eastern.
Cash crops	Coffee	Coastal regions.
	Sugarcane, Cocoa,	Eastern Coastal regions
	Rubber, Soyabean	South East and South Central Coastal Regions
Fruits and Vegetables	Bananas and Oranges	Eastern Coastal Region.

Note : Areas of the production - Each one has a different area. Difficult to point out one area for all the varieties of cash crops, food crops and rice.

ACTIVITY *(Textbook Page No. 54)*

(Refer map to Textbook Page No. 54, Fig 8.3)

Observe the map of Mining and answer the following questions :

(a) Prepare a table of mining products and regions of production in Brazil.

Ans.

Mining products	Regions of production in Brazil
Manganese	North-Eastern parts of Brazil
Bauxite	Closer to the coastline in the North, North East, and South East.
Iron-Ore	Central and South-Eastern part.
Coal	South Brazil.

(b) In which part of Brazil has mining activity not developed? What could be the reasons?

Ans.

(i) Mining has not developed in the Amazon River Basin Area.

(ii) It is a region having thick and dense equtorial rain forest.

(iii) Mining is not possible in such regions due to their inaccessibility and unfavourable conditions.

(c) Considering the availability of resources, where has the development of industries occurred?

Ans. Considering the availability of resources development has occurred mainly in the coastal regions of North-East and South-East of Brazil.

ACTIVITY *(Textbook Page No. 55)*

(Refer map to Textbook Page No. 54, Fig 8.3)

Observe the map of Fishing and answer the following questions :

(a) Can you give two reasons for concentration of fishing near the south-eastern coast of Brazil?

Ans.

(i) Fishing is done on a large scale near the South Eastern coast of Brazil as it is the region where the warm Brazil current and the cold Falkland current meet making the conditions favourable for it to develop as a good fishing ground.

(ii) This area has a vast continental shelf.

(b) Inland fishing is not developed in Brazil though there are large number of rivers. Can you think of a reason?

Ans.

(i) The Amazon River Basin is very vast with a dense growth of equatorial forests, making it largely inaccessible.

(ii) The methods of inland fishing followed are quite traditional and primitive.

These are some of the reasons why inland fishing is not developed in Brazil, though there are large number of rivers.

LET'S RECALL. *(Textbook Page No. 55)*

Name the warm and cold ocean currents near the Brazilian coasts.

Ans. Warm ocean currents : Brazil current
Cold ocean current : Falkland current

ACTIVITY *(Textbook Page No. 57)*

Observe the logos given and answer the questions.

(Refer figure to Textbook Page No. 57, Fig 8.4)

(a) Identify the industries with which they are associated.

Ans.

(i) **Oil and Natural Gas Corpoation** – Oil and natural gas exploration and production .

(ii) **Rashtriya Ispat Nigam Ltd. (RINL)** – Steel production.

(iii) **Aarey** – Dairy and dairy products.

(iv) **Chittaranjan Locomotive Works (CLW)** – Electric locomotive manufacturing.

(v) **Maharashtra Agro Industries Development Corporation (Limited) MAIDC** – Production of pesticides, fertilizers, animal feed, agro-engineering (introducing new kinds of farm implements, Sale and repair of tractors, harvesters etc.) and processing food (like jams, jellies and sauces)

(vi) **Khadi and Village Industries Commission (KVIC)** - Establishment and development of khadi and village Industries in rural areas.

(vii) **Central Silk Board (CSB)** - Silk production.

(viii) **Rashtriya Chemical and Fertilizers Ltd. (RCF)** – Chemical and fertilizer production

(b) Which raw material is used for these industries. Classify them accordingly.

Ans.

Classification	Industries	Raw materials
Agro - based industries	Maharashtra Agro-industries Development Corporation Ltd.	Seeds, raw materials required for the production of pesticides, fertilisers
	Khadi and Village Industries Commission	Cotton, silk and wool
Animal product - based industries	Aarey	Milk
	Central Silk Board (CSB)	Silk
Minerals and metal - based industries	Oil and Natural Gas Corporation Limited (ONGC)	Crude oil and natural gas
	Rashtriya Ispat Nigam Ltd. (RINL)	Steel
	Chittaranjan Locomotive Works (CLW)	Iron & steel and various metals
	Rashtriya Chemical and Fertilizers Ltd. (RCF)	Coal, limestone etc.

(c) From which part of India do they get these raw materials? Discuss and write.

Ans.

(i) **Iron ore, coal, limestone etc. :** Chota Nagpur plateau area of Jharkhand, Odisha, Chhattisgarh, Bengal, Madhya Pradesh, Rajasthan, Karnataka, Goa, Maharashtra etc.

(ii) **Natural Gas :** Krishna-Godavari Basin, Mumbai-High, in Arabian Sea.

(iii) **Mineral Oil :** Mumbai High in Arabian sea, Digboi in Assam, Ankleshwar in Gujarat.

(iv) **Milk :** Bihar, Tamil Nadu, Haryana, Maharashtra, Punjab, Gujarat etc.

(v) **Cotton :** Gujarat, Maharashtra, Telangana, Karnataka, Andhra Pradesh.

(vi) **Silk :** Karnataka, Andhra Pradesh, Tamil Nadu, West Bengal, Jammu and Kashmir.

LET'S RECALL. *(Textbook Page No. 58)*

Read the following table and answer the following questions.

Export, Import and Balance of Trade (Value in US $)				
	India		Brazil	
Year	Exports	Imports	Exports	Imports
2009-10	178751.4	288372.9	152994.7	127647.3
2010-11	251136	369770	197356.4	180458.8
2011-12	304623.53	489181.3	256038.7	226243.4
2012-13	214099.8	361271.9	242579.8	223749.1

(a) What is balance of trade?

Ans. Balance of trade is the difference between the value of a nation's exports and imports for a certain period.

(b) Tell the types of Balance of Trades.

Ans. There are three types of Balances of Trade. They are as follows :

(i) **Unfavourable Balance of Trade :** The value of imports is more than the value of exports.

(ii) **Favourable Balance of Trade :** The value of exports is more than the value of imports.

(iii) **Balanced Trade :** The value of exports and imports.

(c) In which country do the exports exceed the imports in all the years?

Ans. In Brazil exports exceed the imports in all the years.

(d) Brazil's balance of trade belongs to which type?

Ans. Brazil's a Favourable Balance of Trade or Surplus Trade.

(e) India's balance of trade belongs to which type?

Ans. India's has an Unfavourable Balance of Trade or Trade Deficit.

USE YOUR BRAIN POWER ! *(Textbook Page No. 58)*

If Rajasthan does not have a coastal area, then how does it produce salt?

Ans.

(i) Rajasthan does not have a coastline, but it still produces salt because of the Sambhar Lake, which is India's largest inland salt lake.

(ii) Salt is produced on a large scale here due to large extent of its plains and ample of sunlight.

COLOURS OF BOTH *(Textbook Page No. 58)*

(a) What does BRICS stand for?

Ans. BRICS stands for Brazil, Russia, India, China and South Africa.

(b) When was it established?

Ans. BRIC was established in June 2006. South Africa was inducted in 2010. Then it became BRICS.

(c) What are the objectives of this bloc?

Ans. The main objectives of BRICS are :

(i) to cooperate between the member nations for development, provide financial assistance, support various projects, infrastructure, etc.

(ii) to provide support to countries other than members.

(d) The countries of which continent are not a member of this bloc?

Ans. The countries of North America, Australia, Europe and Antarctica are not a member of this bloc.

(e) In which continents do the member countries lie?

Ans. The member countries lie in the continents of South America, Africa and Asia.

COLOURS OF BOTH *(Textbook Page No. 59)*

Study the graph and answer the questions

(Refer graph to Textbook Page No. 59, Fig 8.6)

(a) In which year the value of exports to Brazil exceeded the imports from Brazil?

Ans. In the years 2008, 2010, 2011, 2013, 2014, and 2015, the value of exports to Brazil exceeded the value of imports from Brazil.

(b) In which year the trade with Brazil was most favourable of all?

Ans. In the year 2013, the trade with Brazil was the most favourable of all.

(c) Comment upon the Balance of Trade in the year 2013.

Ans.

(i) In the year 2013, the value of exports to Brazil was approx U.S. $ 6300 million which was much higher than the value of imports from Brazil, which was U.S. $ 3200 million.

(ii) So, in 2013, there was a favourable balance of trade.

(d) From which year the value of exports to Brazil have exceeded the value of imports from Brazil?

Ans. The value of exports to Brazil have exceeded the value of imports from Brazil from 2010-2015 except for the year 2012.

(e) Write a note on the trade between Brazil and India.

Ans.

(i) The graph shows India-Brazil Trade from 2008 to 2015.

(ii) In 2008, 2010, 2011, 2013, 2014 and 2015 India has a 'Favourable Balance of Trade' with Brazil. The value of exports to Brazil has been more than the value of imports from Brazil.

(iii) In 2009 and 2012, India has had an 'Unfavourable Balance of Trade' with Brazil. The value of imports from Brazil has been more than the value of exports to Brazil.

(iv) The difference in the value of imports and exports has been very less in the years 2009, 2010, 2012 and 2015.

(v) In 2015, we can see that India's trade with Brazil has reduced to a great extent, though it is favourable to India.

(vi) Most of the years, India's value of exports to Brazil exceeds the value of imports from Brazil.

GIVE IT A TRY. *(Textbook Page No. 55)*

The following images are related to agricultural activities. Identify and write whether they are practiced in Brazil or India.

Ans.

(i) In the first image, coffee plantation is seen. It is found mainly in Brazil. In India, coffee plantation are seen in the South Indian states of Karnataka, Kerala and Tamil Nadu.

(ii) The second image is of the Tea plantation. It is mainly found in India, in Assam, West Bengal, Tamil Nadu and Kerala.

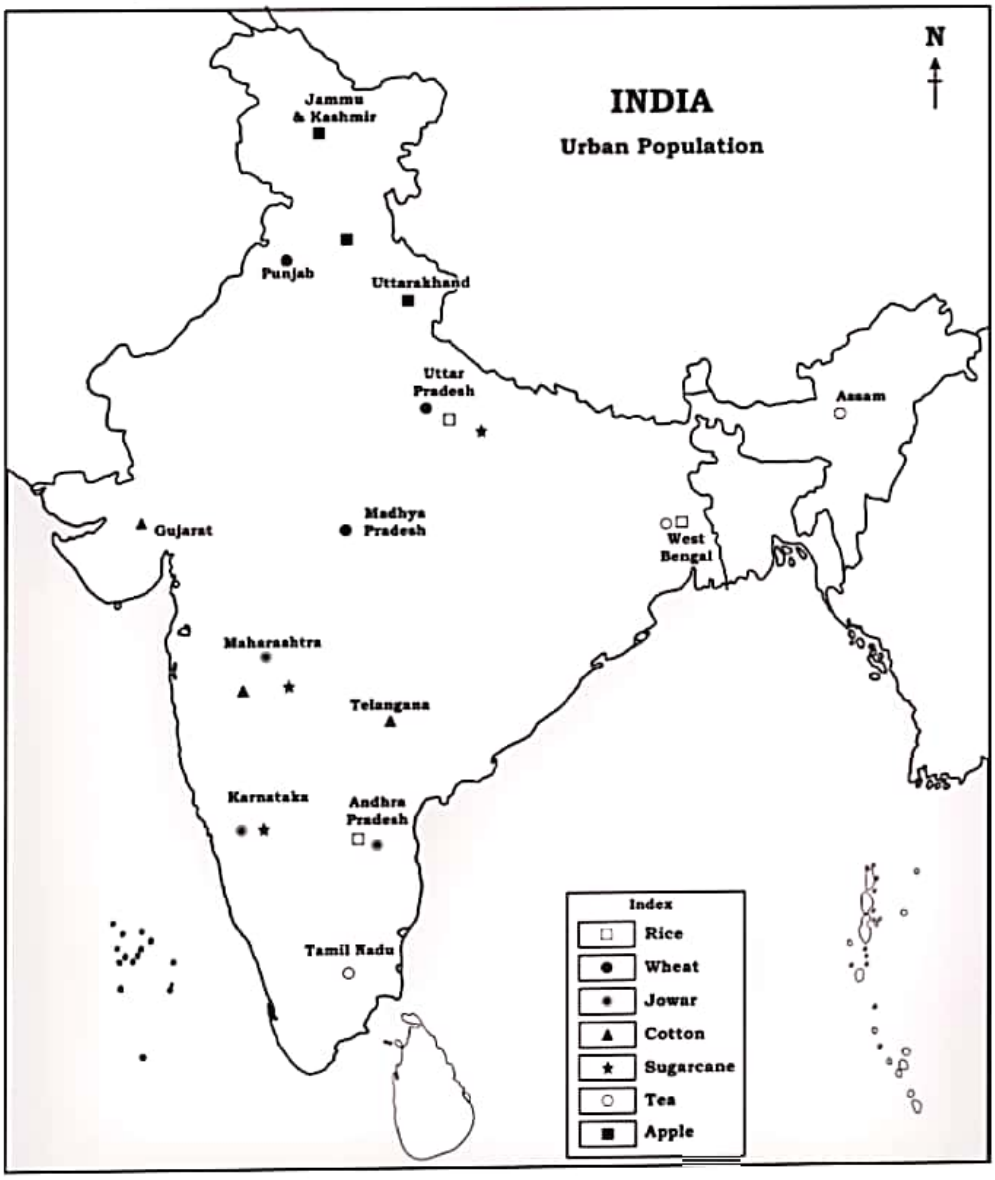
(iii) In the third image, shifting agriculture is seen. It is also called 'Slash and Burn' agriculture. In this method, the land under forests is cleared by cutting and burning. On this patch of land, subsistence type of agriculture is practised for the next few years. Once this patch of land loses fertility; another patch of land is brought under shifting cultivation. It is mainly practiced in Brazil and in some parts of India.

(iv) In the fourth image, paddy cultivation is seen and it is mainly practiced in India where there is having rainfall.

TRY THIS *(Textbook Page No. 56)*

Show the distribution of crops like wheat, jowar, rice, cotton, sugarcane, tea and apple in the outline map of India using symbols Name the map.

Ans.



FIND OUT *(Textbook Page No. 56)*

Obtain information regarding pisciculture in India with the help of internet and reference books and write a note.

Ans.

(i) Breeding, rearing and transplantation by artificial means of fish is called Pisciculture. It is also called fish farming.

(ii) Fishes are raised in tanks or enclosures for commercial reasons.

(iii) The rate of commercial fish farming in India is increasing rapidly due to the increasing demand for fish and fish products.

(iv) Indian climate is suitable for practising pisciculture. Wide variety of fish species are raised in the fish farms e.g. Salmon, Carp, Catfish.

(v) Due to availability of abundant labour and water sources like lakes, ponds, rivers, etc, pisciculture has become easier. So, employment opportunities are created due to pisciculture.

(vi) Banks offer loans for help. But maximum production and reduced feeding costs are ensured when integrated fish farming is practised.

LET'S RECALL. *(Textbook Page No. 56)*

With the help of the pie chart given in fig. 8.2, tell what is the contribution of secondary activities in Brazil's GDP ?

Ans. The secondary activities contribute 27.5% in Brazil's GDP.

❖❖❖

ASSIGNMENT - 8

Time : 1 Hr. **Marks : 20**

Q.1. Fill in the blanks with the most appropriate alternative: (2)

(1) The economies of India and Brazil are of the ..... type.
(a) Undeveloped (b) Developed (c) Developing (d) Highly developed

(2) Many refineries are situated close to the petroleum producing areas whereas Mathura and ..... refineries are in the interior, away from the oil producing areas.
(a) Digboi (b) Bongaigaon (c) Barauni (d) Koyali

Q.2. Match the columns: (2)

(1) Connect the chain after matching the details.

Column 'A'	Column 'B'	Column 'C'
(1) Coal	(1) Digboi	(i) Andhra Pradesh
(2) Mineral oil well	(2) Coastal belt	(ii) Chhattisgarh
(3) Stones	(3) Korba	(iii) Kaveri
(4) Mineral oil and Natural gas	(4) River mouth	(iv) Assam
(5) Coir and copra	(5) Cuddapah	(v) Godavari
	(6) Estuary	(vi) Kerala

Q.3. Distinguish between: (2)

(1) The varieties of aquatic animals caught in marine fishing in Brazil and India

Brazil	India
Swordfish, Shrimp, Lobsters, Sardines.	Sardines, Mackerel, Bombay Duck and Prawns.

Q.4. Name the following: (2)

(1) The name of the river at whose mouth, reserves of mineral oil and natural gas have been discovered.
(2) Major food crops produced in India.

Q.5. Mark the following on the outline map: (2)

(1) On the given blank map of Brazil, show the following:
(a) The major states growing coffee (in Brazil)
(b) The cold – warm ocean current near the Brazilian coast.

Q.6. Give Geographical reasons: (4)

(1) Per capita land availability is more in Brazil as compared to India.
(2) The distribution of industries in India is highly uneven.

Q.7. Answer in Brief: (6)

(1) Why has mining not developed in the western part of Brazil?
(2) Write a note on Mining in India.

9 Tourism, Transport and Communication

Points to Remember:

- Clean, white sand beaches, attractive seacoast, beautiful islands, orchards, the deep dense forests of the Amazon, various birds and animals. **Major tourist attractions**
- The new capital city of Brasilia, **Rio-de-Janeiro**
- An important economic activity in several regions of Brazil. **Tourism**
- Looking at the sensitivity of the natural resources in Brazil, it is developing at a faster rate in Brazil. **Ecotourism**
- In 2015, the number of international tourists visiting **India was more than that of Brazil.**
- Yet, the share of India's tourism sector in the **GDP is lesser than that of Brazil.**
- The proportion of Indian population engaged in tourism is **higher than than Brazil**
- The population of India is **more than Brazil and so is its GDP.**
- So, India's contribution of tourism to GDP appears **lesser than that of Brazil and its population engagement in tourism seems to be more than that of Brazil.**
- The number of international tourists in India **is constantly growing.**
- But this increase appears to be more **after 2010 and has remained consistent.**
- Foreign tourists visit India for **heritage, adventure, culture, health and business tourism.**

❑ In India

- The most common method of transportation is **roadways.**
- Roadways account for **more than half of the transportation system in the country.**
- The density of road network is concentrated in the **North Indian plains of the country.**

❑ In Brazil

- The forested lands of Amazon River basin and the swampy lands have **limited the development of roadways.**
- Waterways: **Developed on a commercial basis in the Amazon River.**
- Boats ply **from Equitos in Peru to the mouth of the river.**
- The longest waterways in the world **can be navigated through these waterways. (around 3700 kms)**
- Another river important for waterways is the south-flowing **Parana river.**
- Coastal shipping **is also carried out in the coastal areas.**

- Railways **Not developed very well in Brazil.**
- The use of trains for long distance transportation of passengers **is restricted to a few urban tourist routes**
- The contribution of airways **is less in the transportation system of the country.**
- As compared to Brazil, **India has a denser network of transport.**
- About 85% of passenger and 70% of freight traffic are carried by **roads every year in India.**
- Railways in India
  Important for the growth of the vast Indian economy, where distances are large. Railways are less denser in some parts, whereas they are dense in other parts.
- Waterways in India **Cheap means of transport contributing about 1% to the country's transportation. (including inland waterways).**
- Approximately 95% of India's foreign trade moves through **ocean routes.**
- Airways in India **are more developed and the use of internal airways is also increasing.**
- The longitudinal extent of Brazil is **vast.**
- Brazil's Westernmost point **Nascente do Rio Moa (07°32'33'' S, 70°59' W.**
- Brazil's Easternmost point **Ponta do Seixas, Paraiba (07°09' 28"S, 34°47' W.**
- Due to the vast longitudinal extent of Brazil, the difference between the two extreme points is around **168 minutes.**
- Brazil has **four time zones.**
- It is behind the GMT **by 2, 3, 4 or 5 hours.**
  The official Brazilian time BRT is 3 hours behind GMT (GMT-03).
- Telecommunication services **in Brazil are well developed, modern and efficient.**
  They are drastically less developed in the north and north-west.
- Today, more than 45% of the Brazilian population **has access to the internet.**
  The nature of Brazilian territory, especially the land mass size and large pockets of unpopulated and densely vegetated areas create Significant impediments in Brazil is created due to the expansion in the coverage of telecommunication services.
- Brazil is developing technology to send **domestically-made satellites into space with its own rockets.**
- India too has a **large longitudinal extent.**
- In India, the difference between the two extreme most points is **2 hours or 120 minutes.**
- India has **only one standard time zone.**
- The 82.5° E longitude is the **Indian Standard Time (IST).**
- IST passes through **Allahabad.**
- IST is ahead of the Greenwich Muridian Time (GMT) (GMT+0530) **by 5 hours 30 minutes**
- India is one of the largest users of **electronic media, smartphones and internet.**
- With the internet facilities and satellites **India has come a long way in this field.**

MASTER KEY QUESTION SET – 9

Q.1. Fill in the blanks choosing the most appropriate alternatives:

(1) The new capital city of Brazil is ..... .
(a) Rio de Janeiro (b) Sao Paulo,
(c) Manaus (d) Brasilia

(2) A city that attracts a lot of tourists is .....
(a) Rio de Janeiro (b) Brasilia
(c) Manaus (d) Ponta de Seixas

(3) A city that attracts a lot of tourists is .....
(a) Sao Paulo (b) Nascente do Rio Moa
(c) Ponta de Seixas (d) Rio Branco

(4) The proportion of the Indian population engaged in tourism is proportionately ..... Brazil.
(a) lower than (b) higher than
(c) equal to (d) extremely lesser than

(5) The number of international tourists in India is constantly ..... .
(a) decreasing (b) remaining the same
(d) growing consistently (d) gradually decreasing

(6) The football stadium at ..... is quite well known.
(a) Rio de Janeiro (b) Manaus
(c) Sao Paulo (d) Boa Vista

(7) The most common method of transportation in Brazil is ..... .
(a) railways (b) waterways
(c) roadways (d) airways

(8) The density of road network in Brazil is concentrated in the ..... part of the country.
(a) southern (b) northern
(c) western (d) eastern

(9) The forested lands of the Amazon River basin and the ..... lands have limited the development of roadways in this part of Brazil.
(a) drought-prone (b) fertile
(c) swampy (d) semi-arid

(10) Waterways have been developed on a commercial basis in the ..... river.
(a) Amazon (b) Uruguay
(c) Purus (d) Aragua

(11) Boats ply from ..... in Peru to the mouth of the river Amazon.
(a) Lima (b) Cusco
(c) Equitos (d) Nazca

(12) Apart from R. Amazon, another important river for waterways is the ..... Parana river
(a) south-flowing (b) north-flowing
(c) east-flowing (d) west-flowing

(13) The contribution of ..... is less in the transportation system of Brazil.
(a) railways (b) roadways
(c) waterways (d) airways

(14) Railway network is dense in the ..... of India.
(a) hilly states (b) north-eastern states
(c) central parts of India (d) North Indian Plains

(15) Approximately, 95% of foreign trade moves through ..... routes.
(a) road (b) rail
(c) air (d) ocean

(16) The westernmost extreme point on mainland Brazil is ..... .
(a) Rio Grande (b) Rio de Janeiro
(c) Nascente do Rio Moa (d) Ponta do Seixas

(17) The easternmost extreme point on mainland Brazil is ..... .
(a) Rio Grande (b) Sao Paulo
(c) Ponta do Seixas (d) Nascente do Rio Moa

(18) Brazil has ..... time zones.
(a) 3 (b) 4 (c) 5 (d) 6

(19) (BRT) Brazil time is ..... hours behind GMT.
(a) Three (b) Four (c) Five (d) Six

(20) Today, more than 45% of the Brazilian population has access to the ..... .
(a) mobile services (b) television broadcasting
(c) radio broadcasting (d) internet

(21) The telecommunication infrastructure is fairly modern, particularly in ..... Brazil.
(a) north (b) north-west
(c) north-east (d) central-south

(22) ..... services in Brazil are well-developed and efficient.
(a) Air (b) Railway
(c) Telecommunication (d) Helicopter

(23) With regard to telecommunication infrastructure, the north and ..... are drastically less developed.
(a) south (b) south-west
(c) north-west (d) central-south

(24) Over recent years, ... have led to the rapid expansion of telecommunication services in Brazil.
(a) landline phones (b) radio broadcasting
(c) television broadcasting (d) mobile telephones

(25) India has ..... standard time zone/s.
(a) one (b) two (c) three (d) four

(26) The difference between the two extreme most points in India is about ..... .
(a) 120 minutes (b) 210 minutes
(c) 168 minutes (d) 186 minutes

(27) The difference between the two extreme most points of Brazil is ..... .
(a) 186 minutes (b) 168 minutes
(c) 120 minutes (d) 200 minutes

(28) The 82°30'E longitude is the Indian Standard Time longitude which passes though ..... .
(a) Allahabad (b) Ahmedabad
(c) Hyderabad (d) Muzzaffrabad

(29) India is one of the largest users of ..... and internet.
(a) landlines phones (b) television
(c) radio (d) smartphones

(30) About 85% of passenger and 70% of freight traffic are carried by ..... every year in India.
(a) roadways (b) railways
(c) waterways (d) airways

Ans. *(1) Brasilia (2) Rio de Janeiro (3) Sao Paulo (4) higher than (5) growing consistently (6) Manaus (7) roadways (8) eastern (9) swampy (10) Amazon (11) Equitos (12) south-flowing (13) airways (14) North Indian Plains (15) ocean (16) Nascente do Rio Moa (17) Ponta do Seixas (18) 4 (19) 3 (20) internet (21) central south (22) Telecommunication (23) north-west (24) mobile telephones (25) one (26) 120 minutes (27) 168 minutes (28) Allahabad (29) smartphones (30) roadways*

Q.2. Match the columns:

(1) Column 'A'	Column 'B'
(1) Trans-Amazonian	(a) Tourist Place Highway
(2) Road Transport	(b) Railway Station in India
(3) Rio de Janeiro	(c) Golden Quadrilateral
(4) Manmad	(d) Major Highways
	(e) 40° W Meridian

Ans. *(1 – d), (2 – c), (3 – a), (4 –b)*

(2) Column 'A'	Column 'B'
(1) The new capital city	(a) Rio de Janeiro
(2) The city attracting a lot of tourists	(b) Manaus
(3) Football stadium	(c) Peru
(4) Beach	(d) Brasilia
(5) Equitos	(e) Sao Paulo
	(f) Boa Vista

Ans. *(1 – d), (2 – e), (3 – b), (4 –a), (5-c)*

Q.3. (A) Answer the following in 1 or 2 sentences:

(1) State the factors that attract foreign tourists towards India?

Ans.
(i) Foreign tourists visit India to see and understand its rich heritage and culture, for adventure, to avail the health services and for business purposes.
(ii) Ecotourism is also being given a boost in India due to these tourists.

(2) What is the kind of service provided by roadways in India?

Ans.
(i) India has a denser network of roads compared to Brazil.
(ii) About 85% of passenger traffic and 70% of freight traffic are carried by roads every year.

(3) How important are the inland waterways in India's transportation?

Ans. Although inland waterways are a cheap means of transportation comprising rivers, canals, backwaters, creeks etc., they contribute about only 1% to India's transportation.

(4) In what way are the ocean routes useful for India?

Ans.
(i) Approximately 95% of India's foreign trade moves through ocean routes.
(ii) Apart from international trade, these are also used for the purpose of transportation between the islands and the rest of the country.

(5) What kind of advanced space technology is Brazil developing?

Ans. Brazil is developing technology to send domestically-made satellites into space with its own rockets.

(6) Write in short about the telecommunication infrastructure in different parts of Brazil.

Ans. The telecommunication infrastructure is fairly modern, particularly in central-south Brazil, but the north and north-west are drastically less developed.

(7) Why have roadways not developed in the north and north-western part?

Ans. The forested lands of the Amazon River basin and the swampy lands have limited the development of roadways in the north and north-western region.

Q.3. (B) Differentiate between:

***(1) Water transport in the Amazon and the Ganga river.**

Ans.

Water transport in the Amazon River	Water Transport in the Ganga River
(i) River Amazon is navigable throughout its course due to its gentle slope.	(i) River Ganga is navigable only in its middle and lower course which is gentler as compared to its upper course.
(ii) Boats ply from Equitos in Peru to its mouth i.e. approx. 3700 km	(ii) Boats ply from Allahabad to Haldia. i.e. approx. 1620 km
(iii) River Amazon is used for navigation between Brazil and neighbouring countries.	(iii) River Ganga is used for inland transportation.

***(2) Communication in Brazil and India**

Ans.

Development of Communication in Brazil	Development of Communication in India
(i) Telecommunication services in Brazil are well developed and efficient. This industry includes landlines as well as mobile services, television broadcasting radio broadcasting and computer / internet access. Today, more than 45% of the Brazilian population has access to the internet.	(i) With the explosion of electronic media, telecom industry has become one of the fast growing sectors.
(ii) The nature of Brazilian territory, especially land mass size and the large pockets of unpopulated and densely vegetated areas create significant impediments to the expansion in coverage of telecommunication services.	(ii) India is one of the largest users of smartphones and internet.
(iii) Brazil is developing technology to send domestically-made satellites into space with its own rockets.	(iii) With development of our own satellites, India has come a long way in this field.

***(3) IST and BRT**

Ans.

IST	BRT
(i) IST is the Indian Standard Time or India Time.	(i) BRT is the Brasilia Time / Brazil Time. (Standard Time)
(ii) India has only one standard time zone.	(ii) Brazil has four time zones.
(iii) The official IST is 82.5° E longitude which passes through Mirzapur near Allahabad, Uttar Pradesh.	(iii) The official BRT is GMT - 03 which passes through Brazilia, the national capital city.
(iv) IST is 5hrs 30mins ahead of Greenwich Meridian Time as India is in the eastern hemisphere	(iv) BRT is 2,3,4, or 5 hours behind Greenwich Meridian Time as Brazil is in the western hemisphere.

(4) The use of railways in Brazil and India.

Ans.

Brazil	India
(i) Railways have not developed very well in Brazil.	(i) Compared to Brazil, India has a denser network of railways in the North Indian Plains and lesser dense network in hilly states in the north and north east and desert areas.
(ii) The use of trains for long distance transportation is restricted to a few urban tourist routes though it is cheaper.	(ii) Freight and passenger transport have been facilitated due to the development of the railways, which are considered very important for the growth of Indian economy.
(iii) Dense network of railways have developed in south and south-east Brazil as compared to other parts of Brazil.	(iii) Dense network of railways have developed in the North- Indian plains as compared to other parts of India.

(5) The use of airways in Brazil and India.

Ans.

Brazil	India
(i) The contribution of airways is less in the transportation system of the country.	(i) As compared to Brazil, airways in India are more developed.
(ii) 81% of Brazilian airways business is from domestic flights.	(ii) The use of internal airways is also increasing.

(6) The Easternmost and Westernmost extreme points (i.e) the longitudinal extent of India and Brazil and the resulting time differences between them.

Ans.

Brazil	India
(i) Westernmost point: Nascente do Rio Moa. (70°59'W)	(i) Westernmost point: Ghuar Mota - (68°07'E.)
(ii) Easternmost point : Ponta da Seixas (34° 47' W.)	(ii) Easternmost point: Kibithu Village – (97°27'E.)
(iii) Difference in longitudes : 36° 12'.	(iii) Difference in longitudes – 29°17'.
(iv) Time difference is 144 minutes on mainland i.e app 2 hours 24 minutes. 168 minutes including islands i.e app. 2 hours 48 minutes.	(iv) Time difference is 116 minutes on mainland i.e. Approximately 2 hours

(7) The densitry of Roadways and railways in Brazil and India.

Ans.

Brazil	India
(i) Roadways account for more than half of the transportation system in the country.	(i) As compared to Brazil, India has a denser network of transport. About 85% of passenger and 70% of freight traffic are carried by road every year.
(ii) Density of network is concentrated in the eastern part of the country.	(ii) Density of network is concentrated in the North Indian plains in the northern part of India.
(iii) Railways have not developed much in the forested lands of the Amazon River basin and the swampy lands in the north and north western parts.	(iii) Railway network is relatively less in the hilly states, northeastern states, central parts of India and Rajasthan (desert region)

Q.3. (C) State whether right or wrong with reasons:

***(1) The future of tourism is bright in India due to its natural diversity.**

Ans. The statement is Right

Reason :

(i) India has mountains, forests, plateaus, deserts, rivers, deltaic plains, islands etc. E.g., the Himalayas, Black waters of Kerala, Sundarbans, Lakshadweep, Islands, Beaches of Goa, Thar Desert of Rajasthan etc.

(ii) Our rich historical and cultural heritage attracts a lot of tourists.

(iii) Foreign tourists also visit India for adventure, health and business.

(iv) Lately ecotourism has been given a big boost in India.

***(2) Tourism is an invisible trade.**

Ans. The statement is Right

Reason :

(i) Trade means buying and selling of goods or services, often in exchange for money.

(ii) While trading in goods is a visible trade, trading in services is an invisible trade.

(iii) Tourism belongs to the service industry as various services are provided to the tourists.

(iv) For e.g., hotels, lodges, transport, food, entertainment etc.

(v) Tourism generates employment and income for the local people. It brings in foreign currency.

All this boosts the economy of the country.

***(3) The indicator of development in a country is the development of transport in that country.**

Ans. The statement is Right

Reason :

(i) Development is improving the welfare of a society through social economic and political conditions.

(ii) Infrastructure social and economic development through provision of better income, education, transport, telecommunication etc.

(iii) So when high density transport infrastructure is present in a region, it is associated with high levels of development.

(iv) But inefficient transportation systems lead to lower quality of life.

Thus, the indicator of development in a country is the development of transport in that country.

***(4) Brazil's time is ahead of India's time.**

Ans. The statement is Wrong

Reason :

(i) India lies in the eastern hemisphere while Brazil lies in the western hemisphere.

(ii) India has only one standard time zone the 82.5°E longitude is the Indian Standard Time (IST). It is 5hrs 30 mins ahead of Greenwich Meridian Time (GMT).

(iii) As compared to India, Brazil has a longer longitudinal extent. It has four time zones. There are the GMT by 2,3,4 or 5 hours.

(iv) The main time zone of Brazil is GMT-03 which is considered to be the official Brazilian time. It is 3 hours behind GMT.

Thus, Brazil's time is ahead of India's time.

***(5) The development of tourism in India has begun recently.**

Ans. The statement is Right

Reason :

(i) India is rich in natural beauty that includes mountains, forests, plateaus, plains, islands, coastal areas etc.

(ii) India also has a rich heritage and a huge variety of cultural and historical attractions.

(iii) In recent years new forms of tourism have been developed in India like Eco tourism, Agro tourism, Medical tourism, Film tourism.

(iv) Infrastructural facilities like transport, communication, accommodation etc have been developed in tourist destinations.

(v) Also Branding and Marketing initiatives to promote Indian tourism has been indicated.

All the above reasons attracts tourists in India and so the development of tourism has taken place.

Q.4. (A) Mark the following on outline map of Brazil / Name the following.

(1) The new capital city of Brazil.
(2) Cities that attract a lot of tourists.
(3) A south-flowing river important for waterways.
(4) The easternmost extreme point of mainland Brazil.
(5) The westernmost extreme point part of mainland Brazil.

Ans.

1. The new capital city of Brazil
2. Cities that attract a lot of tourists
3. A south-flowing river important for waterways
4. The easternmost extreme point of mainland Brazil.
5. The westernmost extreme point part of mainland Brazil.

Q.4. (B) Answer the following questions on the basis of the map given.

(1) Observe the map carefully and answer the following questions / Name the following :
(Refer to Textbook Page No. 64, Fig 9.10)

(1) Name the terminal points of the North-South Highway.

Ans. North – Srinagar, South – Kanyakumari / Kochi

(2) Name the terminal points of East-West Highway.

Ans. East – Silchar ; West – Porbandar.

(3) Name the three major ports on the western coast.

Ans. (a) Porbandar (b) Mumbai and (c) Cochin are the three major ports on the western coast.

(4) Name the three major ports on the eastern coast.

Ans. (a) Chennai (b) Vishakhapatnam and (c) Haldia (Kolkata) are the three major ports on the eastern coast.

(5) Which part of India is totally devoid of any kind of road transport route ?

Ans. The northernmost part of India in the state of Jammu and Kashmir does not have any national highway or other roadways.

(2) Observe the given map carefully and answer the following questions :
(Refer to Textbook Page No. 65, Fig 9.11)

(1) What does the map indicate ?

Ans. The map indicates the important railway routes and airports of India.

(2) Which part of India has many airports compared to the others?

Ans. The Southern part of India (i.e.) Peninsular India has many airports compared to the other parts of India.

(3) Which part of India has a dense network of rail routes ?

Ans. The Northern part of India the North Indian plains region has a dense network of rail routes.

(4) Name the northernmost important railway station.

Ans. Baramulla is the northernmost important railway station.

(5) Name the easternmost important railway station.

Ans. Tinsukia is the easternmost important railway station.

(6) Name the two westernmost important railway stations.

Ans. Okha and Naliya are the two westernmost important railway stations.`

Q.5 Give geographical reasons:

***(1) Eco-tourism is being developed more in Brazil.**

Ans.

(i) Ecotourism is responsible travel to natural areas that conserves the environment.

(ii) Brazil has the largest number of vegetation species in the world including Amazon, the largest rainforest of the world and a great diversity of wild life.

(iii) It has clean white sand beaches, attractive seacoasts, beautiful islands and orchards.

Looking at the sensitivity of the natural resources in Brazil, Eco tourism is being developed here.

***(2) The waterways are not developed in Brazil.**

Ans.

(i) Waterways have been developed on a commercial basis in the second largest river of the world the Amazon River.

(ii) Boats ply from Equitor in Peru to the mouth of the River Amazon. River Amazon has the longest navigational stretch of around 3700 km.

(iii) The south-flowing Parana River is also an important waterway.

(iv) There are about 15 seaports along the coast and the port of Manaus has been developed on the confluence of the Negro and the Amazon.

(v) Coastal shipping is also carried out in the coastal areas.

Thus, the waterways are not developed in Brazil.

***(3) A dense network of railways has developed in the North Indian plains.**

Ans.

(i) Railway is a cheap and speedy mode of transport as compared to other modes of transport.

(ii) The North Indian Plains have a vast leveled land which is ideal for railways.

(iii) This region has high population density, is rich in agriculture and industries.

(iv) This makes it suitable for transportation of people and freight.

So a dense network of railways has developed in the north Indian plains.

***(4) Development of transport is important for the country's progress.**

Ans.

(i) Transport is the movement of humans, animals and goods from one location to another.

(ii) Transport is enables social, economic and cultural development of the country.

(iii) Road transport facilities door-to-door service.

(iv) Rail transport is suitable for long distance and bulky goods.
(v) Water transport plays an important role in international trade and suitable for bulky goods.
(vi) Air transport provides the fastest means of transportation.

***(5) We rely on the sea routes for international trade.**

Ans.

(i) Waterways is the cheapest mode of transportation for bulky and perishable goods over long distances.
(ii) Waterways are natural mode of transportation and do not require any special infrastructure and maintenance.
(iii) India is surrounded by Bay of Bengal, Arabian Sea and India Ocean, therefore we have a long coastline.
So we rely on the sea route for international trade.

(6) India's contribution of tourism to its GDP appears lesser than Brazil and population engagement seems higher.

Ans.

(i) The number of international tourists visiting India in 2015 was more than that of Brazil.
(ii) Even though this is true, the share of tourism sector in the GDP is less than that of Brazil.
(iii) Apart from this, the proportion of Indian population engaged in tourism is higher than that of Brazil.
(iv) This is primarily dependent on the size of the population of those countries and the size of the GDP.
(v) According to the data available, the population of India is more than Brazil and so is its GDP.
(vi) As the GDP of India is higher than Brazil's GDP and so also its population, the contribution of tourism to GDP appears lesser than Brazil's and population engagement seems higher.

(7) Railways are important for the growth of the Indian economy.

Ans.

(i) Railways are very important for a vast country like India where the distance between places is large.
(ii) Freight and passenger transport have been facilitated due to the development of the railways.
(iii) The more the facilities available for passenger transport and freight transport, the more growth in the economy.
(iv) Railway network is relatively less dense in the hilly, states, north eastern states, the central parts of India and in Rajasthan while it is dense in the North Indian Plains, where the majority of the population resides.
(v) Thus, the railways are very important for the Indian economy's growth.

Q.6. Write short notes on:

***(1) Modern means of communication.**

Ans.

(i) With the explosion of electronic media, the telecom industry has become one of the fast growing sectors.
(ii) In this era of information and communication technology, digitally enhanced communication devices like mobile phones, smart phones, internet and satellites are being used.
(iii) Modern means of communication have made it possible to transmit printed messages, pictures, video calling, video-conferencing and even live performances to all corners of the world with speed.

***(2) Air transport in India.**

Ans.

(i) Air transport is more developed in India as compared to Brazil.
(ii) The use of internal airways is also increasing.
(iii) Important airports from where domestic and foreign travel can be conducted in India are Mumbai, Delhi, Kolkata, Chennai, Bengaluru etc.

***(3) Correlation between physiography and internal waterways.**

Ans.

(i) Waterways are the cheapest means of transportation.
(ii) For inland waterways it requires rivers and canals with gentle slope and sufficient depth.
(iii) So the lower course of River Ganga is used for inland waterways.
(iv) River Amazon is navigable throughout its course due to its gentle slope.
(v) Whereas rivers such as the Godavari, Krishna are not good for internal waterways because the waters in them are shallow and they flow through steep slopes.

***(4) Importance of Standard Time.**

Ans.

(i) Standard Time means a uniform time for places approximately the same longitude, established in a country or a region by law or custom.
(ii) It is the official local time of a region or country determined by distance from the Greenwich to the line of longitude passing through the area.
(iii) Having a standard time or a uniform time for a place helps in making proper schedules of travel

modes like the airways, railways, etc. and helps in scheduling meetings that are to happen in other far off places of the same country or another country.

(iv) This would greatly help in avoiding confusion regarding day, date and time. If it would not be there, there would be time differences resulting in utter chaos and confusion not only internationally but even within the country, regarding various schedules related to legal, social and commercial purposes.

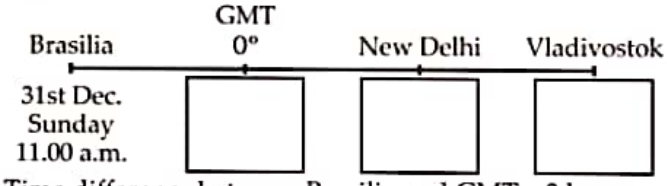
(v) Earlier, people set their clocks or pocket watches on observing the sun and time differences were barely noticeable due to long travel times.

(vi) But, the expansion of transport and communication, as well as globalisation in trade created the need for a more unified time-keeping system and following it.

(vii) Hence, Standard ime based on a central meridian must always be divisible by 7½. This allows time to be reckoned by a unit of half an hour and not smaller differences.

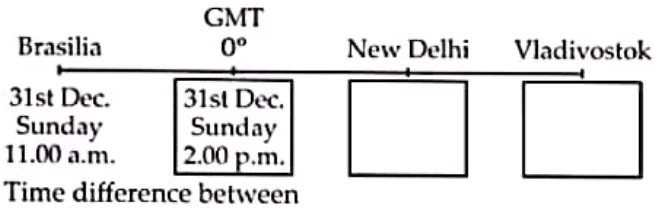
Q.7. A plane leaves Brasilia at 11 a.m. on 31st December. The plane crosses 0° Meridian and reaches Vladivostok via New Delhi. Tell the local time, date and day at New Delhi and Vladivostok when the plane leaves Brasilia.

Ans.



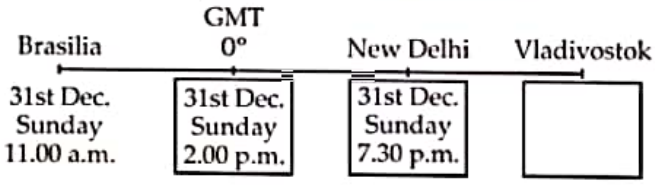
Time difference between Brasilia and GMT = 3 hours

∴ Time at GMT = 11 a.m. + 3 hours
= 2.00 p.m.



Time difference between
GMT and New Delhi = 5 hours 30 min.

∴ Time at New Delhi = 2 a.m. + 5 hours 30 min.
= 7 hours 30 min.

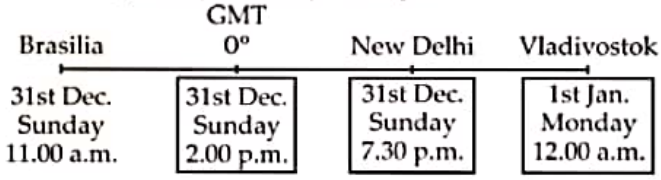


Time difference between
New Delhi and Vladivostok = 4 hours 30 min.

(Source : Internet)

∴ Time at GMT = 7.30 a.m. + 4 hours 30 min.
= 12.00 a.m.

1st January Monday 12.00 p.m.



Therefore, the local time, date and day at New Delhi will be 7.30 p.m., 31st December, Sunday and at Vladivostok will be 12.00 a.m., 1st January, Monday.

Q.8. Answer is short:

***(1) Which factors attract more tourists in Brazil?**

Ans. The factors which attract more tourists in Brazil are

(i) Clean, white sand beaches
(ii) Attractive seacoasts
(iii) Beautiful islands
(iv) Beautiful orchards
(v) Deep dense forests of Amazon
(vi) Various birds and Animals
(vii) Cities like the new capital city of Brasilia, Rio-de-Janeiro and Sao Paulo.
(viii) Eco tourism

***(2) What are the difficulties in the development of the railway system in Brazil's internal areas?**

Ans.

(i) The densely forested lands of Amazon River Basin and the Swampy lands have limited the development of Railways in Brazil.
(ii) Large pockets of Brazil are unpopulated
(iii) Roadways are the most common mode of transportation in Eastern part of Brazil and waterways have developed on a commercial basis in the Amazon River.
(iv) The trains are used for long distance transportation of passengers only a few cities and by tourists.

These are the difficulties in the development of the railway system in Brazil's internal areas.

***(3) Which means of communication has expedited the field of communications?**

Ans.

(i) Thus the expansion of more digitally enhanced communication devices like mobile phones, internet and satellites has expedited the field of communication.
(ii) More than 45% of Brazil's population has internet access where India is one of the largest uses of smart phones.

(iii) Mobile phones, telephones, television radio, computers and internet are the various means of communication in today's modern world.

Q.9. Answer in detail:

(1) Write a note on the Roadways and Waterways in Brazil.

Ans. Roadways:

(i) The most common mode/means of transportation is roadways.

(ii) Roadways account for more than half of the transportation system in the country.

(iii) But the density of road network is concentrated in the eastern part of the country.

(iv) The forested lands of the Amazon River basin and the swampy lands have limited the development of roadways in this part.

Waterways:

(v) Waterways have been developed on a commercial basis in the Amazon River.

(vi) Boats ply from Equitos in Peru to the mouth of the river.

(vii) The longest waterways in the world can be navigated through these waterways (around 3700 kms).

(viii) Another river important for waterways is the south-flowing Parana river.

(ix) Coastal shipping is also carried out in the coastal areas.

(2) The Development of Communication in Brazil.

Ans.

(i) Telecommunication services in Brazil are well developed and efficient.

(ii) This industry includes landlines as well as mobile services, television broadcasting, radio broadcasting, and computer/internet access.

(iii) Today, more than 45% of the Brazilian population has access to the internet.

(iv) The telecommunication infrastructure is fairly modern, particularly in central-south Brazil.

(v) However, the north and north-west are drastically less developed.

(vi) Over recent years, mobile phones have led to the rapid expansion of telecommunication services in Brazil.

(vii) The nature of Brazilian territory, especially land mass size and the large pockets of unpopulated and densely vegetated areas create significant impediments to the expansion in coverage of telecommunication services.

(viii) Brazil is developing technology to send domestically-made satellites into space with its own rockets.

(3) Write a detailed note on Railways and Waterways of India. (Break in points)

Ans. Railways:

(i) Freight and passenger transport has been facilitated due to the development of railways. Railways are important for the growth of the Indian economy.

(ii) Railway network is relatively less dense in the hilly states, north-eastern states, central parts of India and Rajasthan (desert area) while it is dense in the North Indian Plains.

(iii) Railways are very important for a vast country where distances are large.

Waterways:

(iv) Waterways are a cheap means of transport. Waterways are contributing about 1% to the country's transportation. It comprises rivers, canals, backwaters, creeks, etc.

(v) Approximately 95% of India's foreign trade moves through ocean routes. Apart from international trade, these are also used for the purpose of transportation between the islands and the rest of the country.

Try this. *(Textbook Page No. 61)*

Look at the graph and answer the following questions :

(Refer to Textbook Page No. 61, Fig 9.1)

(a) Which country attracted more international tourists in the year 1995?

Ans. In 1995 both India and Brazil attracted almost the same number of foreign tourists i.e. approximately 20 lakh people.

(b) In which country did more international tourists arrive in the year 2000?

Ans. More international tourists arrived in Brazil in the year 2000 (i.e.) approximately 50 lakhs compared to India at 25 lakhs.

(c) In which year can an increase be seen in the number of international tourists in India?

Ans. From the year 2000 there is an increase in the number of international tourists in India.

After 2010 the number of international tourists to India, grew by leaps and bounds.

(d) What was the number of international tourists in the year 2015 in both the countries? What was the difference between them?

Ans. The number of international tourists in India in 2015 was approx 130 lakhs. The number of international tourists in Brazil in 2015 was 60 lakhs. The difference between India and Brazil in the numbers of international tourists in 2015 was 70 lakh people. (130 lakhs - 60 lakhs)

(e) What could be the reason of increase in tourists in India after the year 2010?

Ans. The 2010 Commonwealth Games in Delhi significantly contributed in boosting tourism in India. The World Travel and Tourism Council, India had said that there is direct contribution of Travel and Tourism to GDP (3.3% of total GDP in 2016) and also contribution to employment (jobs) (5.8% of total employment directly and 9.3% of total employment indirectly).

According to the Ministry of Tourism of India, the number of (FTAs) Foreign Tourist Arrivals in India increased to 5.78 million during 2010 as compared to 5.17 million in 2009 indicating a growth rate of 11.8%. In 2016, it had increased to 8.8 million, 2017 July saw a 7.4% increase in FTAs. The E-visa system has eased visa application procedures. Our transport network is improving as well as our country has so much to offer to people with different demands and desires such as religious tourism, health tourism, business tourism, etc. The quality of travel and stay has also improved. These are a few reasons why tourists in India have increased.

Can you tell ? *(Textbook Page No. 61)*

Look at the graph and answer the following questions :
(Refer to Textbook Page No. 61, Fig 9.2)

(a) What type of graph is shown here?

Ans. The type of graph shown here is a Joint Bar Graph.

(b) What does the graph show?

Ans. The graph shows (i) The percentage of population engaged in tourism and (ii) the contribution of tourism in GDP both in Brazil and India.

(c) Which country's tourism has a larger share in the contribution towards GDP?

Ans. Brazil's tourism has a larger share in the contribution towards GDP.

(d) Which country has a larger population engaged in tourism sector but contributes lesser in GDP?

Ans. India has a larger population engaged in tourism sector but contributes lesser in GDP.

Think about it. *(Textbook Page No. 62)*

What are the factors responsible for development of these tourism sites in Brazil?

Ans. The factors responsible for the development of tourism sites in Brazil at Rio De Janeiro are its beaches with clean white sand and attractive sea coast and its scenic beauty, the landscape and architecture at the Football Stadium at Manaus, The mesmerising coastline, the fishing and boating facilities at the sea coast in Brazil.

Make friends with maps! *(Textbook Page No. 63)*

(a) Which means of transport are seen on the map?

Ans. All the means of transport like roads, (including major roads), railways, airways (airports), and waterways (ports) are seen on the map.

(b) Which means of transport has a denser network?

Ans. The roadways have a denser network.

(c) Which highway can be seen prominently? Which places does it join?

Ans. The Trans Amazonian Highway can be seen prominently. . It connects Cruzeiro do sul, Porto Velho, Manaus and Brasilia.

(d) What could be the reason for the development of railways in the South-East?

Ans.

(i) South-East Brazil is the richest and the most populated region of the country.

(ii) Coffee, various kinds of fruits, minerals like bauxite, coal, iron ore are found here.

(iii) Freight transport via railways helps in the movement of these goods from farms and mines to the sea ports.

(iv) Famous tourist places like Sao Paulo, Rio de Janeiro lie in this part.

(v) All this makes South-East Brazil suitable for trade and business.

Hence development of railways has taken place in the South-East region of Brazil.

(e) In which part of Brazil do you see a lesser development of transport network? What could be the reason?

Ans. The Amazon Basin region which is nearly the size of continental US makes up 40% of all of South America. Most of it lies in Brazil. This region is very much undeveloped and unreached. It lacks a paved highway or railway network due to its inaccessibility. Majority of its transportation can be done via boats only on the immense river system. There are seaplanes, too. Small canoes

and speed boats are used. There are live-in boats for support teams (medical, water filter, construction, disaster relief, etc.)

Think about it. *(Textbook Page No. 63)*

Considering the development of transport in a place, which factors do you think are responsible for the development of transport in Brazil? Also, think which means of transport could be used in Brazil given its topography and drainage?

Ans. Considering the development of transport in a place, the factors that are responsible for the development of transport in Brazil are: the physiography, accessibility, population, climatic conditions, availability of power / fuel, funds etc. Right now, Brazil ranks 107th out of 144 countries in the level of infrastructure development. Roads and ports need to be upgraded. Railroads are few and competitive. They can he increased. Given its topography and drainage, it can make roads and railway lines on bridges so as to preserve and protect its forest areas and its waterways in the Amazon Basin.

Activity *(Textbook Page No. 64)*

(Refer to Textbook Page No. 64, Fig 9.10)

(a) Which means of transport are visible on the map?

Ans. The means of transport that are visible in fig.9.10 are national highways and waterways while in fig.9.11 the means of transport that are visible are railways and airways.

(b) In which part of India is the density of railways more?

Ans. The density of railways is more in the Northern Plains region.

(c) Name five important ports and airports of India.

Ans. Ports :
Mumbai ,Vishakhapatanam, Haldia, Chennai, Kandla
Airports :
Delhi, Mumbai, Bengaluru, Chennai, Kolkata

(d) Which parts of India have a sparse network of transport? What could be the reason?

Ans.

(i) The North and the North-East parts of India like Jammu & Kashmir, Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura have a sparse network of transport.

(ii) Regions with low population and lack of economic opportunities have sparse network of transport.

(iii) Also mountainous areas, forest areas, areas covered with swamps, areas having problems of landslides and earthquakes have sparse network of transport.

Give it a try. *(Textbook Page No. 65)*

Arun called his mother from Digboi at 7 am. At what local time will his mother pick up his call at Jaisalmer?

Ans. Digboi's longitude 95° 63′ E [7.00 am]
Jaisalmer's longitude − 70° 90′ E
24° 73′

Difference in the number of longitudes = Approximately 25°.

Time difference = 25° × 4 minutes = 100 minutes.
(i.e.) 1 hour and 40 minutes

Digboi is ahead of Jaisalmer, being in the Eastern part of India. So, if it is 7.00am at Digboi, it will be 5.20 am at Jaisalmer.

Try this. *(Textbook Page No. 65)*

(Refer to Textbook Page No. 66, Fig 9.12)

Calculate the difference in time between the two points in minutes.

Westernmost point: Nascente do Rio Moa (07° 32′33″S, 70° 59′W) Easternmost point : Ponta do Seixas, Paraiba (07° 09′ 28″S, 34° 47′W)

Ans. 70° 59′W (Western most point)
− 34° 47′W (Eastern most point)
36° 12′ difference

1 degree = 4 min.
36 degrees = 36 × 4 = 144 min.

∴ 144 minutes is the difference in time between the Easternmost and the Westernmost part of Brazil.

Activity *(Textbook Page No. 66)*

(Refer to Textbook Page No. 66, Fig 9.12)

Read the map and answer the following questions:

(a) How many divisions can you see in the map?

Ans. We can see 4 divisions in the map.

(b) What do these divisions signify?

Ans. These divisions signify the time zones in Brazil.

(c) What does the term 'behind the GMT' mean?

Ans. The Greenwich Meridian Time is a time set with reference to 0° longitude that passes through Greenwich. Th countries lying to the west of 0° longitude are 'behind the GMT'.

(d) Which part of Brazil is ahead of others? By how many minutes?

Ans. The Eastern part of Brazil is ahead of the other parts by (144 minutes and 48 seconds.) i.e. approx. 145 minutes.

(e) What does the red line in the map show?

Ans. The red line in the map shows the GMT-03 time zone which is considered to be the official Brazilian time (BRT). It is 3 hours behind GMT.

Activity *(Textbook Page No. 66)*

(Refer to Textbook Page No. 67, Fig 9.13)

Study the map given in figure 9.13 and answer the following questions:

(a) Calculate the difference between the two longitudinal extremes of mainland India. Is it more than Brazil?

Ans. The difference between the two longitudinal extremes of east and west mainland India is about 30°.

The difference between the two longitudinal extremes of east and west mainland Brazil is about 36°.

The difference between the two longitudinal extremes of mainland India is **lesser than** that of Brazil.

(b) Which longitude in India is called the Indian Standard Time (IST)?

Ans. The 82° 30′ E longitude is called Indian Standard Time (IST).

(c) What is the difference between IST and the GMT?

Ans. The IST time is 5 hours and 30 minutes ahead of the GMT.

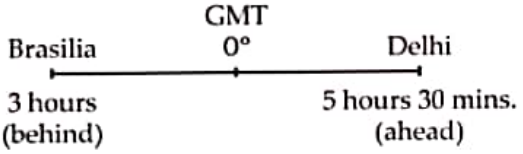
(d) How many local times are there in India?

Ans. There is only one local time in Inda.

Think about it. *(Textbook Page No. 67)*

It is 12 noon at Delhi. What would be the local time in Brasilia?

Ans. If it is 12 noon at Delhi, the local time in Brasilia would be 3.30 a.m. This is because Brasilia is 3 hours behind GMT and Delhi is 5 hours 30 minutes ahead of GMT. Therefore



∴ Time difference between Brasilia and Delhi is of 8 hours 30 mins (3 hours + 5 hours 30 mins)

Time at Delhi = 12 noon

∴ Time at Brasilia = 12 noon – 8 hours 30 mins

= 3.30 a.m.

Use your brain power ! *(Textbook Page No. 67)*

Saurabh and Ashwini work for a MNC. Two of their regional head offices are located in Brazil in Rio De Janeiro and Manaus, respectively. Both of them have to contact either of the head offices constantly.

As they have to adjust timings according to their head offices, find out their corresponding timings in India, if they work according to office timings in Brazil i.e 10 a.m. to 5 pm.

Ans. Let us assume Saurabh is coordinating with Rio De Janeiro's head office and Ashwini is coordinating with the head office of Manaus.

Brazil has four time Zones. It is behind the GMT by 2, 3, 4 or 5 hours.

Since, Rio De Janeiro is in the 2nd time zone which is in 3 hours behind GMT (GMT - 03) and Manaus is the 3rd time zone which is 4 hours behind GMT (GMT - 04).

The time difference between GMT and IST is of 5 hours 30 mins. They have to make following adjustments :

Saurabh		
Rio De Janeiro	**GMT**	**IST**
10 a.m.	1 p.m.	6.30 p.m.
5 a.m.	8 p.m.	1.30 a.m.

Ashwini		
Manaus	**GMT**	**IST**
10 a.m.	2 p.m.	7.30 p.m.
5 a.m.	9 p.m.	2.30 a.m.

Ans. : Corresponding timings in India

Saurabh : 6.30 p.m. to 1.30 a.m.

Ashwini : 7.30 p.m. to 2.30 a.m.

Give it a try. *(Textbook Page No. 68)*

On what basis will you decide how many standard times should be there in a country?

Ans. The number of standard times or times zones in a country should be decided based on the longitudinal extent of a country. The world is longitudinally divided into time zones, with each hour difference roughly 15° apart. So, the country with a very vast longitudinal extent should ideally have different standard times in order to avoid confusion.

ASSIGNMENT - 9

Time : 1 Hr. **Marks : 20**

Q.1. Fill in the blanks with the most appropriate alternative: (2)

(1) Apart from R. Amazon, another important river for waterways is the ..... Parana river
(a) south-flowing (b) north-flowing (c) east-flowing (d) west-flowing

(2) The 82°30'E longitude is the Indian Standard Time longitude which passes though ..... .
(a) Allahabad (b) Ahmedabad (c) Hyderabad (d) Muzzaffrabad

Q.2. Match the columns: (2)

(1)	Column 'A'		Column 'B'
(1)	Trans-Amazonian	(a)	Tourist Place Highway
(2)	Road Transport	(b)	Railway Station in India
(3)	Rio de Janeiro	(c)	Golden Quadrilateral
(4)	Manmad	(d)	Major Highways
		(e)	40° W Meridian

Q.3. Answer the following in 1 or 2 sentences: (2)

(1) What kind of advanced space technology is Brazil developing?
(2) What is the kind of service provided by roadways in India?

Q.4. Differentiate between: (2)

(1) IST and BRT

Q.5. Mark the following on outline map of Brazil / Name the following. (2)

(1) A south-flowing river important for waterways.
(2) The new capital city of Brazil.
(3) The westernmost extreme point part of mainland Brazil.
(4) Cities that attract a lot of tourists.

Q.6. Give geographical reasons: (4)

(1) Development of transport is important for the country's progress.
(2) The waterways are not developed in Brazil.

Q.7. Write short notes on: (6)

(1) Modern means of communication.
(2) What are the difficulties in the development of the railway system in Brazil's internal areas?

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Model Question Paper – 1

Time : 2 Hrs. **Geography** **Marks : 40**

Note : (i) All questions are compulsory.
(ii) Draw neat diagram wherever necessary.
(iii) Map supplement and graph paper attach to the main answer-book.
(iv) Bold figures to the right indicate full marks alloted for the question.

Q.1. Select the correct option. (4)

(1) Both India and Brazil have ..... type of government.
(a) Military (b) Communist
(c) Republic (d) Presindential

(2) Amazon river basin is covered by .....
(a) Delta (b) Swamp
(c) Dense forest (d) Thorny shrubs

(3) Rainfall in India is received from ..... type of winds.
(a) South west monsoon (b) North east
(c) Northerly (d) Westerly

(4) In Brazil ..... types of forests are not found.
(a) Evergreen (b) Deciduous
(c) Thorny shrubs (d) Himalayan

Q.2. Match the following. (4)

Column I	Column II
(a) Equatorial forests	(i) Savanna
(b) Thorny shrubs	(ii) Pampas
(c) Tropical Grasslands	(iii) Amazon basin
(d) Swampy Lands	(iv) Escarpment
	(v) Catinga
	(vi) Pantanal

Q.3. Are the statements right or wrong? Rewrite correcting wrong ones. (Any Four) (4)

(1) Marajo island in Brazil is sea island.

(2) Himalaya is old fold mountain.

(3) Aravali mountain divides Ganga - Sindhu river basins

(4) In Brazil and India there are same seasons at the same time.

(5) Evergreen forests in India are called the lungs of the world.

Q.4. Show the following in outline map of Brazil (Index is must) (Any four) (4)

(1) Equator (2) Capital City
(3) One Beach (4) Highland in North
(5) A region of very low rain (6) Home of Anacondas

Q.5. Observe the given map of India and answer the following questions (Any Four)(4)

Fig. 9.11

(1) What is shown in the map?

(2) In which part of India is the density of railways more?

(3) Write names of two ports each on eastern and western coast.

(4) Write names of the southernmost and northernmost railway stations.

KK

(5) Which states of India have the lowest density of railways?

(6) Write names of two important railway stations on Mumbai - Delhi route on Western Railway.

Q.6. Give geographical reasons. (Any three) (6)

(1) Sediments are not deposited in the mouth ofAmazon river.

(2) Himalayan rivers are perennial rivers.

(3) Cyclones are not formed in coastal regions of Brazil.

(4) Evergreen Rain Forests of Brazil are rightly called 'lungs of the world'.

(5) Density of population is very high in the coastal area of Brazil.

Q.7. Use the table given below to draw compound bargraph and answer the following questions. (Any two) (6)

Year	Import	Export
1909 - 10	152,994	127,647
1910 - 11	197,356	180,458
1911 - 12	256,038	226,243
1912 - 13	242,579	223,149

(1) What is class interval in years?

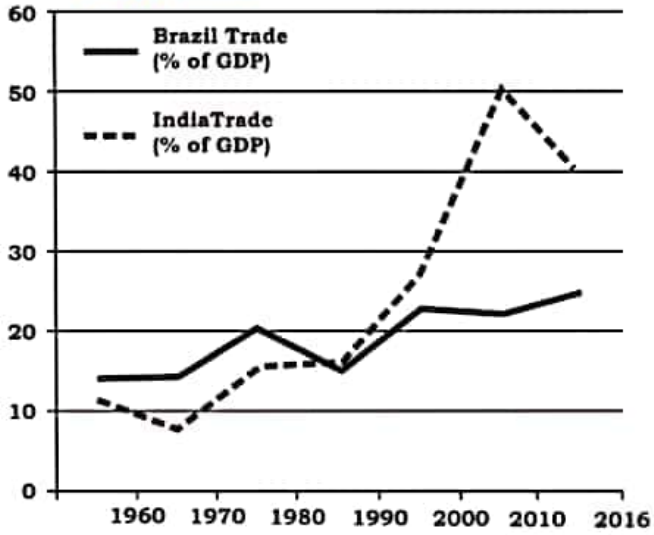
(2) What changes were taken in Brazil's imports and exports from 1909 to 1913.

(3) Brazil's balance of trade belongs to which type?

(4) In which year the difference between exports and imports of Brazil's trade was least?

OR

Q.7. Read the following diagram and answer the questions.



Contribution of trade in GDP

(1) What is shown in the diagram?

(2) When was the contribution in GDP of India less than Brazil.

(3) In which year contribution in GDP of Brazil and India was the same?

(4) During with period the contribution in GDP of India was greater than Brazil?

(5) State the year from which India's contribution in GDP started declining.

(6) State the year in which India's contribution in GDP was highests.

Q.8. Answer the following questions (Any two) (8)

(1) What are the important food crops and commercial crops in Brazil?

(2) Which factors attract more tourists in Brazil?

(3) Give a brief account of urbanisation in India.

(4) Give a detail information of Himalayas.

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Model Question Paper – 2

Time : 2 Hrs. **Geography** **Marks : 40**

Note : (i) All questions are compulsory.
(ii) Draw neat diagram whenever necessary.
(iii) Map supplement and graph paper attach to the main answer-book.
(iv) Bold figures to the right indicate full marks alloted for the question.

Q.1. Select the correct option. (4)

(1) In Brazil _____ is the home of Anacondas.
(a) Savanna (b) Catinga
(c) Panetanal (d) Pampas

(2) In India one-horned Rhinoceroses are found in _____ area.
(a) Assam (b) Peninsular plateau
(c) Kashmir (d) Coastal area

(3) Most urbanised state in India is _____.
(a) Maharashtra (b) Uttar Pradesh
(c) Goa (d) Gujrat

(4) India's capita income is less than Brazil because of _____.
(a) Less national income
(b) Very large size of population
(c) Large size families
(d) Less food grains production

Q.2. Identify the odd man out (4)

(1) (a) Evergreen forest (b) Himalayan forest (c) Convectional rain (d) Decidious forest

(2) (a) Density of population
(b) Sex Ratio
(c) Urban-rural population
(d) Human settlement

(3) (a) Television Broadcasting (b) Teaching (c) Providing lodging and boarding facilities (d) Rice production

(4) (a) Temperature (b) Rainfall (c) Range of temperature (d) Orographic rain

Q.3. Answer in one sentence. (Any Four) (4)

(1) As per 2011 census, what was the density of population of India?

(2) What is the type of economy in Brazil and India?

(3) Which is the major coffee producing state of Brazil?

(4) What is the type of agriculture practice in India?

(5) In India where are oil refinaries away from the coast?

Q.4. Show the following in the map of India. (Index is must) (Any four) (4)

(1) 23 1/2° North parallel of latitude

(2) One island in the mouth of Ganga.

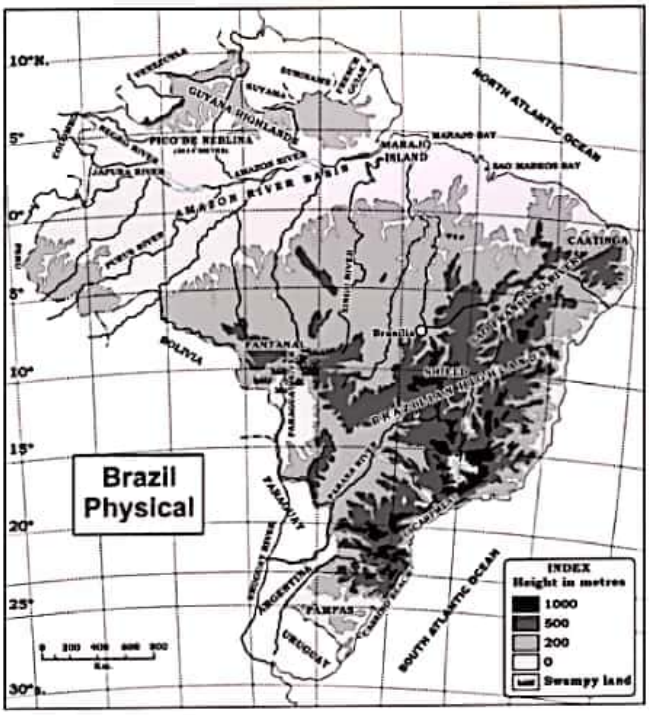
(3) Water divided between Tapi and Narmada.

(4) One densely populated state in South India.

(5) Evergreen forest region in India.

(6) North - South National highway.

Q.5. Observe the map given and answer the following questions (Any Four) (4)



(1) What is shown in the map?

(2) Between which two highlands is the Amazon river basin located?

KK

(3) What is the name of the highest mountain peak in Brazil? What is its hight?

(4) What is the name of famous beach in Brazil? Where is it?

(5) Swampy land in Brazil is located in which river basin?

(vi) What is the range of altitude of Amazon river basin?

Q.6. Give geographical reasons. (Any three) (6)

(1) There are limitations on the development of mining activities in the eastern parts of Brazil.

(2) Fishing activity has well developed on southeastern coast of Brazil.

(3) Brazil attracts large number of international tourists.

(4) In economic development of India, the contribution of railways is very important.

(5) Telecom industry has become one of the fast growing sectors in India.

Q. 7 Use the table given below to draw line graph and answer the following questions. (Any two) (6)

Brazil Percentage of Urban Population (1960 - 2010)

1960	1970	1980	1990	2000	2010
47.1	56.8	66	74.6	81.5	84.6

(1) What is interval of data?

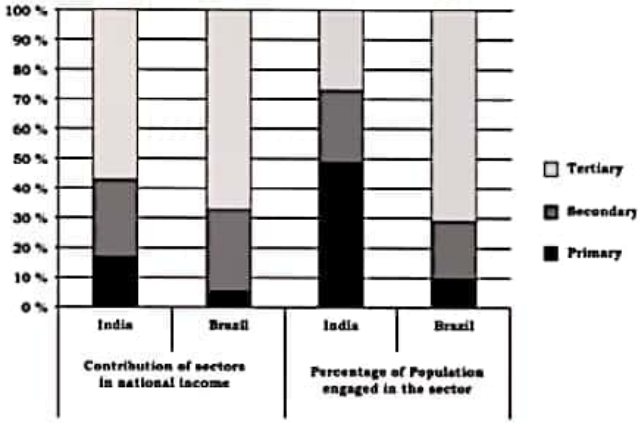
(2) In which period urbanitation occur rapidly?

(3) In which period urbanisation was slow?

(4) What is percentage increased of urbanisation during 1960-2010?

OR

Q.7. Read the following diagram and answer the questions.



(1) What is shown in the diagram?

(2) What is the type of graph?

(3) Which country has more people engaged in tertiary activities?

(4) What is the percentage of people in Brazil engaged in tertiary activities?

(5) What is the percentage of people engaged in tertiary activities in India?

(6) What is the percentage of people engaged in secondary activities in India?

(7) Which is the most dominant sector of economic activities in India?

Q.8. Answer the following questions (Any two) (8)

(1) Give a detail account of highlands in Brazil.

(2) Briefly describe the Amazon river basin.

(3) Explain different settlement pattern in India.

(4) Give an account of development of railways in India.

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