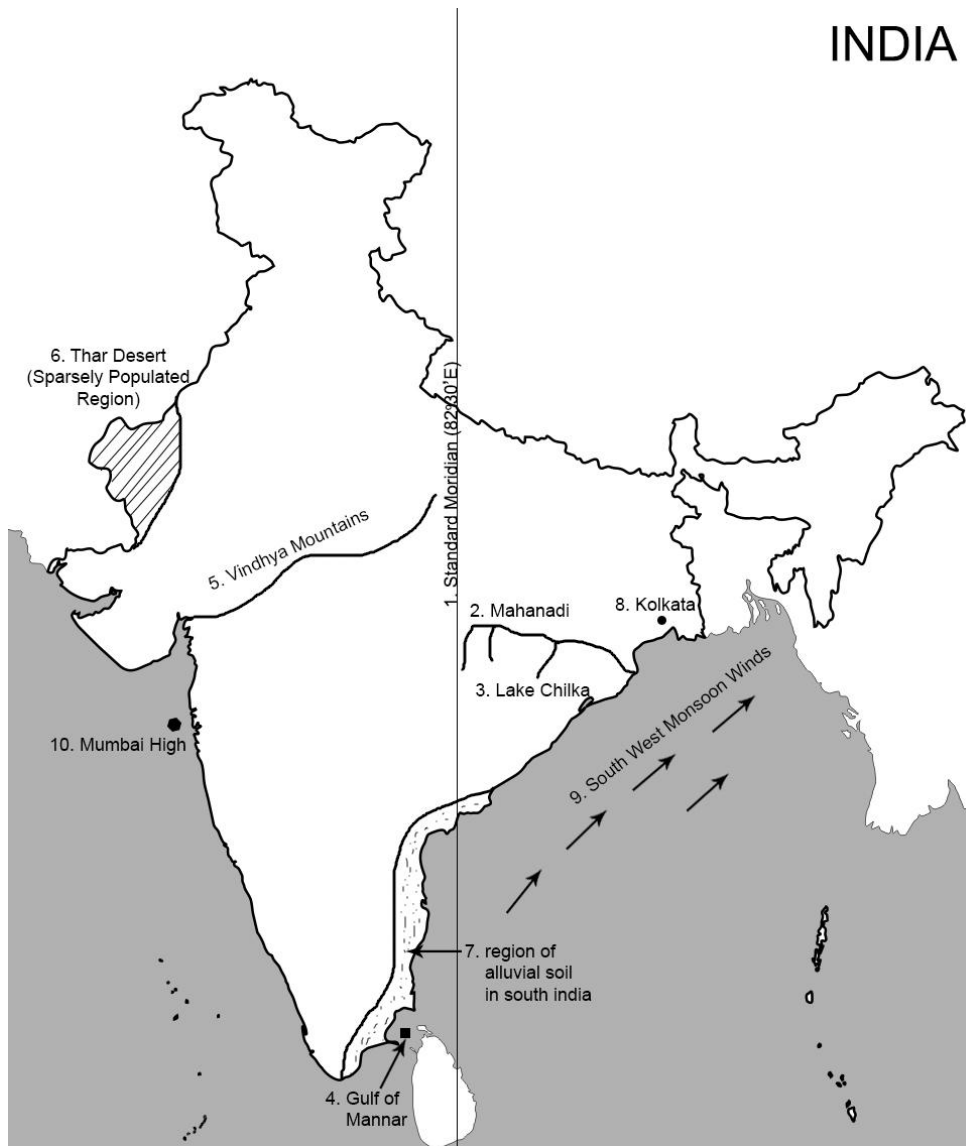


ICSE Board
Class X Geography
Geography - Paper 1
Board Paper Solution - 2016

PART - I
Question 2



Part-II

Answer 3

- (a) India has a tropical monsoon type of climate. It is because India lies in the tropical belt, and its climate is deeply influenced by the monsoon winds.
- (b) (i) Southwest monsoon winds bring heavy rainfall to Cherrapunji.
(ii) The local winds which bring a light rainfall to South India and are beneficial for tea and coffee plants are known as mango showers.
- (c) (i) Kanpur lies in the interior of the continent. It thus experiences a continental type of climate. While summers are too hot, winters are too cold. Thus, Kanpur experiences extreme temperature conditions.
(ii) Kochi is warmer than Mumbai even though both lie on the western coast of India because the former is located close to the Equator and receives direct rays of the Sun throughout the year.
(iii) The second branch of the Arabian Sea strikes the western coast of India by the second week of June. The Ganga Plains receive rainfall from the Bay of Bengal branch which first strikes the northeastern parts of India and then travels to the Northern Ganga Plains.
- (d) (i) Annual rainfall = Sum of rainfall in all twelve months
Therefore, annual rainfall is 129.2 cm.
The total annual rainfall = Sum of rainfall in all twelve months.
Therefore, annual rainfall is 128.7 cm.
(ii) The annual range of temperature = Maximum temperature - minimum temperature
 $32.5^{\circ}\text{C} - 24.5^{\circ}\text{C} = 8^{\circ}\text{C}$
(iii) The station lies on the south eastern coast of India (Tamil Nadu) as the station receives maximum rainfall from the retreating monsoon.

Answer 4

- (a) The removal of the topsoil by water, wind and human activities is called soil erosion. Two ways to prevent soil erosion are
- **Shelter belts:** Trees should be planted in several rows to check the speed of the wind. This reduces soil erosion because of wind.
 - **Constructing dams:** Because the rivers cause soil pollution, dams are built in the upper course of the rivers to check soil erosion.
- (b) Two similarities between red soil and laterite soil are
- Both soils are red because of the presence of iron oxides.
 - Both types of soils are deficient in nitrogen.
- (c) (i) Alluvial soil differs in texture as it is formed by the deposition of sediments by rivers. The alluvial soil which gets deposited in the upper reaches of the river is coarse and dry, while extremely fine and moist alluvial soil is deposited at the lower reaches of the river.

(ii) Black soil does not get leached because of its capacity to hold moisture. It has high water retention capacity.

(iii) Khadar is the new alluvium and is more fertile than bhangar because new layers of this soil are deposited year after year during the monsoon floods.

(d) (i) Sheet erosion: Slow and gradual removal of a thin layer of soil because of the destruction of vegetation is known as sheet erosion. Sheet erosion occurs on gentle slopes.

(ii) **Soil conservation:** Preventing soil erosion by taking various measures such as plantation of trees, strip cropping and contour ploughing is known as soil conservation.

(iii) **In situ soil:** When soil is formed at its original position by the weathering of the parent rock, it is known as *in situ* soil like the black soil.

Answer 5

(a) (i) The tropical deciduous forests are the commercially most exploited forests in India.

(ii) Two trees which grow in this forest are teak and sal.

(b) (i) The tropical evergreen forests grow on the windward side of the Western Ghats.

(ii) The tropical evergreen forests grow on the windward side of the Western Ghats because this region receives heavy rainfall (above 250 cm annual).

(c) (i) Hintal and Sundari trees are found in littoral or mangrove forests.

(ii) Rosewood and ebony are found in tropical evergreen forests.

(iii) Deodar and chir pine grow in montane forests.

(d) Three reasons which have led to the depletion of forest resources in the past are

- Huge tracts of forests were destructed for expanding agriculture.
- The British systematically destroyed the Indian forests to meet the growing demand for timber in Britain. Many forests were also destroyed by the government during the World Wars to supply timber to the war front.
- Forests have been cleared to make land available for building houses and industries.

Answer 6

(a) Without irrigation, the development of agriculture is difficult in India because of the following two reasons:

- Rainfall in India is highly irregular and uncertain. While sometimes, it may rain heavily, at other times, there can be droughts because of the scarcity of rains.
- Not every part of the country receives adequate rainfall. The windward side of the Western Ghats and north eastern parts of India receive heavy rainfall. On the other hand, the Saurashtra- Kutch region, parts of Punjab and Haryana, and Rajasthan receive scanty rainfall.

(b) Two factors which are essential for the development of tube well irrigation are

- High level of water table

- Soft soil
- (c) (i) The Northern Plains of India are flat without any dense forests, making them suitable for canal irrigation.
(ii) Tank irrigation is an important means of irrigation in Karnataka because of the presence of hard rocks in the state. Rainwater is collected in a hollow depression.
(iii) Although it is expensive, sprinkler irrigation is gaining popularity in recent times because it uses water more efficiently and reduces the amount of water required for irrigating the field.
- (d) (i) Rainwater harvesting is the method of collecting rainwater for use before it reaches the ground. Generally, rainwater is collected from the rooftop through pipes and stored in underground storing structures.
(ii) Two objectives of rainwater harvesting are
- To store rainwater and to ensure water supply even during dry months or droughts
 - To recharge the underground water table

Answer 7

- (a) (i) Three types of coal found in India are bituminous, lignite and peat.
(ii) Coking coal, a high grade bituminous coal, is mostly used in iron and steel industries.
- (b) (i) Mumbai High
(ii) Kudremukh mines
- (c) (i) Gondwana coalfields are the largest coalfields in India.
(ii) Digboi oil field in Assam is the oldest oilfield in India.
(iii) Magnetite is the best variety of iron ore.
- (d) (i) Aluminium is extracted from bauxite.
(ii) Two uses of aluminium are
- It is used in aircraft, automobiles, rail wagons
 - It is used in electrical equipment industry and for transmitting electricity because it is a good conductor of electricity.

Answer 8

- (a) Two reasons for the importance of agriculture in India are
- It provides food for our ever-increasing population.
 - It provides employment to millions of people.
- (b) (i) Rice grows well in clay-like subsoil as the water retention capacity of clayey soil is very high. Rice crop needs standing water.
(ii) Advantages of growing rice in nurseries before it is transplanted are
- Only healthy plants are picked for sowing in the field.
 - Weeds can be removed while transplanting the plant in the field.
- (c) (i) This is a tea crop which grows well in Assam.
(ii) Mostly women are employed for tea picking because they are better pickers of tea leaves and can be employed at cheaper rates.

- (iii) Two geographical conditions required for the cultivation of this crop are
- The tea crop grows well in humid climate with an annual rainfall of 150 cm which is well distributed throughout the year.
 - It grows well in temperature ranging from 24°C to 30°C.
- (d) (i) **Shifting cultivation:** It is also known as 'Slash and Burn Agriculture'. In this kind of cultivation, a patch of forested land is cleared by felling and burning trees. The ashes of trees are mixed in the soil. After two to three years, when the soil loses its fertility, the land is left fallow, and a new patch of land is cleared for cultivation.
- (ii) **Bud grafting** is a technique in which budding is carried out by using buds of a selected quick-growing variety of a plant. After the seedlings grow, the buds from the mother plant are grafted on to the seedlings.
- (iii) **Oil cake:** An oil cake is the solid remains after pressing oil and liquids from seeds like groundnuts. Oil cakes are generally used as forage for animals.

Answer 9

- (a) Two reasons for the importance of jute industries in the Ganga Brahmaputra region are
- Jute is grown in abundance in the region.
 - Availability of cheap labour in the region.
- (b) Two problems faced by cotton textile industries in India are
- Most of the machinery installed in the cotton mills are outdated and need to be replaced.
 - The cotton industry is facing tough competition from the fibre industry.
- (c) (i) The woollen industry is not a flourishing industry in India because of the following reasons:
- Woollen clothes are required only in northern India during winter months. Hence, the demand is less.
 - Because the wool produced in India is not of a high quality, most wool has to be imported from abroad.
- (ii) Two centers of this industry are Ludhiana and Dhariwal.
- (d) (i) Karnataka is the largest producer of mulberry silk because it has a favourable climate for rearing silkworms.
- (ii) Two types of non-mulberry silk produced in India are tassar silk and muga silk.
- (iii) Silk weaving centre in Tamil Nadu: Coimbatore
Silk weaving centre in Uttar Pradesh: Varanasi

Question 10

- (a) Two advantages which a mini steel plant have over an integrated iron and steel plant are
- Mini steel plants use easily available scrap iron as raw material.
 - These plants do not require heavy investments.
- (b) (i) The Durgapur steel plant is an iron and steel plant which was established with British collaboration.

- (ii) The Durgapur steel plant gets its supply of raw materials from the following places:
1. Iron ore: Singhbhum (Jharkhand) and Keonjhar (Odisha)
 2. Manganese: Keonjhar (Odisha)
 3. Coal: Jharia coal fields (Jharkhand)
- (c) (i) Products of the petrochemical industry are synthetic fibres, dyestuffs, drugs and ferrous and non-ferrous metals. These products are growing in popularity because they are used widely in domestic, industrial and agricultural fields.
- (ii) A heavy engineering industry requires huge capital investment because it uses bulky and heavy raw materials, modern sophisticated technology and large number of skilled and unskilled labour.
- (iii) The electronic industry manufactures sophisticated products ranging from equipment used in defence, space exploration, information technology and communication to various computer systems.
- (d) (i) Bhilai is known for the production of steel at the Bhilai steel plant.
- (ii) Chittaranjan is famous for the production of electric railway engines and diesel locomotives.
- (iii) Koraput is a centre which manufactures MIG aircraft.

Question 11

- (a) Two advantages of waterways are
- It is one of the cheapest means of transport.
 - It is suitable for transporting heavy and bulky raw materials and finished goods.
- One disadvantage of water ways is that it is limited to those areas and regions where rivers are navigable and oceanic routes exist.
- (b) Roadways are considered more important than any other means of transport because of the following reasons:
- Roads connect almost all villages, towns and cities.
 - Roads can be constructed in even hilly areas and regions where it is extremely difficult to lay railway lines.
- (c) Two sources of wastes are
- (i) Domestic household activities generate organic and inorganic wastes.
 - (ii) Wastes which decompose into the soil and do not pose serious challenges to the environment are known as biodegradable wastes.
- (d) (i) **Composting:** It is a method by which the household and municipal wastes are decomposed by the aerobic method (by microorganisms).
- (ii) **Incineration:** In the process of incineration, municipal wastes are burned at a very high temperature. Many materials like metal do not get completely burnt. These may be then recycled.
- (iii) **Segregation:** This is a method in which wastes are segregated into biodegradable and non-biodegradable materials and put into different bins. Biodegradable wastes are then converted to useful products like biogas.