

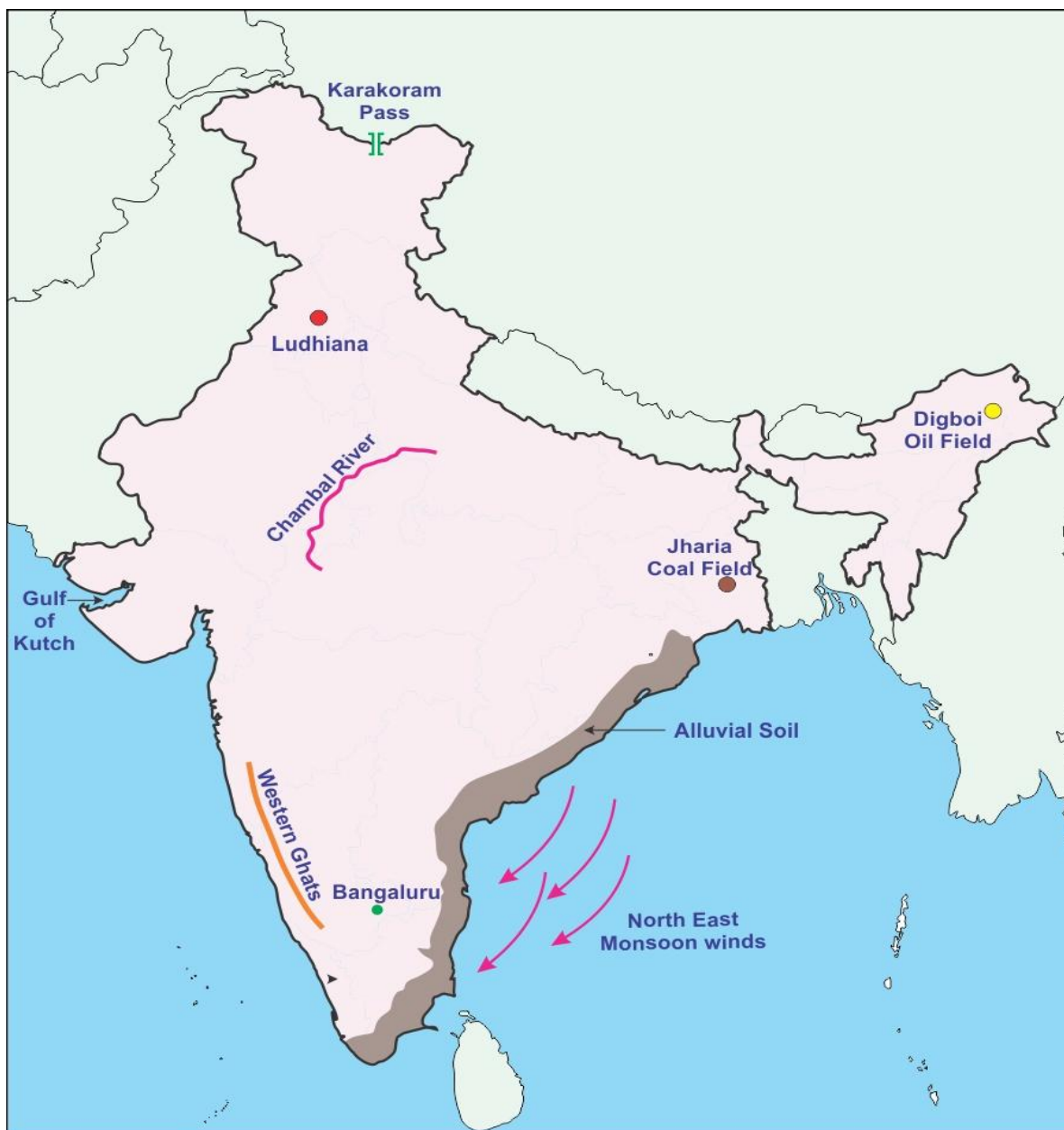
**ICSE Board
Class X Geography
Sample Paper – 2 Solution**

PART – I (30 Marks)

Answer 1

- a) i. 111073 ii. 137045
- b) i. The relative height of the embankment is 6m.
ii. The water in grid square 1403 is saline.
- c) i. This represents the peak of a hill.
ii. Red dotted line show a footpath.
- d) This region experience a seasonal rainfall as the rivers are dry given in the map. Also there are large numbers of wells.
- e) The drainage pattern is radial in 1606 while it is trellis in 1708.
- f) i. The pattern of settlement in grid square 1904 is scattered.
ii. Post office is in Dattani.
- g) Two landforms are conical hill and saddle in grid square 1608.
- h) The ground distance in kilometres along the metalled road between the causeway in 1502 and the distance stone marked '14' in grid square 1203 is 4km.
- i) Dense forests and less availability of flat agricultural plains, there is absence of large habitation in north eastern parts of the country.
- j) i. 1023-260-763m.
ii. NNW is the compass direction of Patlawka goliya from Kacholi Dunder.

Answer 2



PART II**Answer 3**

- a) i. The northern plains in India do not freeze during the winter season because the Himalayan Mountains act as a barrier to the cold winds which blow from Central India.
- ii. Kochi has a less range of temperature as compared to Agra because it is a coastal area located by the Arabian Sea. Agra on the other hand lies in the interiors of the continent which is far away from the moderating influence of the Sea.
- b) Orographic rainfall occurs when rain bearing winds strike against the mountains and result in precipitation on the windward side of the mountains. In India, rainfall is orographic in nature as heavy rains occur on the windward slopes of the Western Ghats and scanty rainfall on the leeward side. Thus Mahabaleshwar lying on the windward side receives more than 250 cm of rainfall while Pune on the leeward side records less than 70 cm of rainfall. The same is true of the hilly regions in north east India which receive orographic rainfall.
- c) i. The Aravalli Hills run parallel to the Arabian Sea branch and thus do not form any barrier to intercept the winds. Thus, the annual rainfall in Rajasthan is less than 25cm annually.
- ii. Due to the retreating monsoon, the Coromandel Coast receives rainfall during the winter season.
- iii. Since the coastal areas experience the moderate effect of the sea, they do not experience significant variation in the temperature.
- d) i. The driest month is March.
- ii. Annual rainfall= the sum of the rainfall in all the twelve months
Therefore, the annual rainfall is 129.2 cm.
- iii. Annual range of temperature= highest temperature-lowest temperature
 $32.5 - 20.4 = 12.10^{\circ}\text{C}$
Thus the annual range of temperature is 12.10°C .

Answer 4

- a) The three reasons why the iron and steel industry is called a basic industry are as follows:
- All industries whether heavy, medium or light depend on the iron and steel industries for their machineries.
 - Steel is required for manufacturing a variety of engineering, construction and defense goods.
 - Day to day consumer goods like containers, safety pins etc. are made of steel.
- b) Two advantages of mini steel plants are:
- These plants meet the requirements of the local market and thus reduce the pressure on the large steel plants.
 - These plants do not require heavy investments.
- c) Two geographical factors that were taken into consideration for the setting up of the Durgapur iron and steel plant were:
- Its close proximity to the Singhbhum iron fields of Jharkhand and Raniganj iron fields of Odisha provide the plant with the required iron ore.
 - The Durgapur plant is located along the river Damodar. Water is supplied to the plant from the Damodar River through a channel.
- d) i. Petrochemical industry is an industry that produces chemicals using petroleum and its products as major raw materials.
- ii. Two products made from petrochemicals are synthetic rubber and plastic.
- iii. The Indian petrochemical Corporation Limited is located at Jawaharnagar near Vadodara, Gujarat.

Answer 5

- a) Two differences between metallic and non metallic minerals:

Metallic minerals	Non Metallic minerals
Metallic minerals contain metal in the raw form.	Non metallic minerals do not contain metals.
These metals are generally associated with igneous rocks.	These metals are generally associated with sedimentary rocks.

- b) Two ferrous minerals are iron and manganese.
- c) Bauxite is an ore of aluminium. Two main uses of aluminium are:
- Since aluminium is a good conductor of electricity, it is used in the electrical industry.
 - Since it is a light weight metal, it is used in the manufacturing of airplanes and ships.
- d) i. Two major iron ore belts are Orissa Jharkhand belt and Durga Bastar Chandrapur belt.
- ii. The southernmost iron ore belt of India is Bellary-Chitradurga-Chikmagalur-Tumkur belt in Karnataka. Three characteristics of this belt are:
- It has large reserves of iron ore in India.
 - The Kundermukh mines are located in the Western Ghats of Karnataka.
 - Its deposits are one of the largest in the world and the ore is transported as slurry through a pipeline to the port near Mangalore.

Answer 6

- a) The crop shown in the picture is sugarcane. Uttar Pradesh and Maharashtra are two major sugarcane producing states.
- b) Hot and humid climate with temperature ranging from 21°C to 27°C is required for the growth of this crop. The rainfall required is anywhere between 75 cm to 100 cm.
- c) High cost of production and low yield and irregularity in sugarcane supply are two major problems faced by the sugarcane industry.
- d) i. Two factors that favour the silk industry in Karnataka are:
- Favourable climate ranging from 16°C to 31°C for the rearing of silk worms.
 - Mulberry trees grow well in the climatic conditions of Karnataka leading to the production of mulberry silk.
- ii. The silk industry is considered as a small scale industry because silk is mainly produced in rural areas where the rearing of silk worms is easy. Further, cheap labour is also available for silk rearing.

Answer 7

- a) Two advantages of road transport are:
- It provides door to door services.
 - Construction costs of roads are much lower than the railways.
- b) Difference between national highways and state highways:

National highways	State highways
National highways are constructed and maintained by the central government.	State highways are constructed and maintained by the state government.
They connect major cities, industrial centers, pilgrim places across the country.	These connect district headquarters, tourist centres, pilgrim towns and national highways within the state.

- c) Three improvements made by railways in its functioning are:
- Railway lines have been laid in the hilly and rough terrain in the country.
 - Many railway bridges have been constructed over large rivers.
 - The development of Konkan railways along the west coast has greatly enhanced the movement of goods and passengers in the region.
- d) i. Chennai Port
ii. Vishakhapatnam
iii. Goa

Answer 8

- a) Three characteristics of the thorn forests and scrubs are:
- The thorn forests are found in the regions which receive less than 70 cm of rainfall. These forests are found in the semi arid areas of Gujarat, Haryana, Madhya Pradesh, Chhattisgarh, Uttar Pradesh and Rajasthan.
 - The thorny bushes have long roots which penetrate deep into the soil in search of water.
 - Leaves are thick and small to minimize evaporation. Some varieties of trees are acacias, palms and cacti.
- b) Tropical evergreen forests are difficult to exploit for commercial purposes because these forests are dense and many plants and climbers are tangled to each other. Secondly, the lack of means of transport deep into the forests has made these trees difficult to be used commercially.
- c) i. The trees in the tropical evergreen forests do not shed their leaves at the same time and hence the tropical evergreen forests always appear green.
- ii. Trees of the tropical deciduous forests shed their leaves for about six to eight weeks in order to save water.
- d) Three methods for the conservation and development of forests in India are:
- To stop indiscriminate felling of trees and to create awareness among the people about the importance of forests by celebrating events like 'Vanmahotsav'.
 - To increase the participation of local and tribal communities through joint management of forests.
 - In India, trees are felled in large numbers to provide for firewood. Thus in order to conserve forests we need to use alternative sources of energy.

Answer 9

- a) A green house is a building made up of glass in which plants are grown. The glass building absorbs the heat of the sun but does not allow it to go out. This increases the temperature inside the glass building. Similarly, in our atmosphere, there are many green house gases. Carbon dioxide is one of them. It absorbs sun's radiation and does not reflect a part of it back into the space. This results in the increase of temperature on the earth.
- b) The effects of global warming are:
- The temperature of the earth is likely to increase by 2°C to 5°C in the next hundred years.
 - This increase in temperature will result in the melting of snow in the polar regions of the earth. This will result in a rise in sea levels leading to the submergence of coastal lands.
 - An increase in temperature will result in changes in the climatic conditions all over the world by influencing the wind and rain patterns.
- c) Two solid wastes generated by the sugar industry are bagasse and molasses. Bagasse is used as one of the many raw materials in the manufacture of particle boards and paper. Molasses is used in the manufacturing of many products like ethyl alcohol and acetic acid.
- d) Effluents from chemical industries contain copper, lead, chromium, zinc etc. These wastes also contain acids, grease and cleansing agents. They pollute the water resource and also cause many respiratory diseases among humans.

Answer 10

- a) Two characteristics of laterite soil are:
- It is of coarse texture.
 - It is mostly red in colour due to the presence of iron in it.
- b) Black soil is found in some parts of Gujarat. Two crops grown on this soil are cotton and wheat.
- c) Alluvium soil is formed by the depositional activities of the rivers. Rivers deposit very fine particles of soil called alluvium in the plains during the course of their long journey. Alluvium soil is a mixture of sand, clay and silt.
- d) Two important agents of erosion are water and wind.
- Water erosion can be minimised by practising terrace farming.
 - Strip cropping is one method by which we can prevent soil erosion by winds.

Answer 11

- a) Wheat in India is usually grown during winter. Two major wheat producing states are Uttar Pradesh and Punjab.
- b) Two climatic conditions that are suitable for the growth of bajra in India are as follows:
- The ideal temperature for the growth of bajra is between 25°C to 30°C.
 - It grows well in areas which receive less than 100 cm of rainfall. Light monsoon showers followed by bright sunshine make the ideal cultivating conditions for the growth of bajra.
- c) Transplantation is a method by which rice is sown mostly in deltaic flood plains. This method is a labour intensive method. In this method seedlings are grown in the nurseries, and when they become saplings and grow up to the height of 25 cm to 30 cm, they are generally transplanted in the rice fields uniformly in straight rows. The field is flooded with water to about 4-6 cm till the maturing of the crop. The advantage of transplantation is that this method results in a high output of the crop.
- d) i. Groundnuts grow best when the temperature is between 20°C to 25°C and the rainfall is light and moderate ranging between 50 cm to 100 cm.
- ii. Continuous drought or rains, stagnant water and frost adversely affect the ground nut crop.
- iii. Two non edible seeds are castor seeds and linseeds.