

ICSE Solved Paper 2020

Geography

Class-X

(Maximum Marks : 80)

(Time allowed : Two hours)

Attempt seven questions in all.

Part I is compulsory. All questions from Part I are to be attempted.

A total of five questions are to be attempted from Part II.

The intended marks for questions or parts of questions are given in brackets [].

PART I

(30 marks)

Attempt all questions from this Part

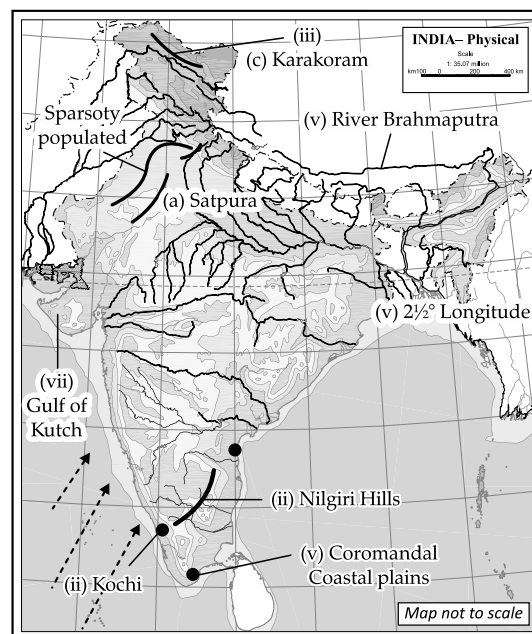
*1. Study the extract of the Survey of India Map sheet No. 45D/10 and answer the following questions:

- (a) (i) Give a *six figure* grid reference for the spot height .324 in *northern* part of the map extract.
- (ii) Give a *four figure* grid reference for *open scrub* south of *Dhad Talao*. [2]
- (b) (i) What is the *meaning* of the term 'Contour interval'?
- (ii) What is the contour interval of the sheet provided to you? [2]
- (c) What is the *area in kilometre square* of the region between *06 and 09 Eastings* and *22 and 27 Northings*? [2]
- (d) What is the *significance* of the following colours used on the survey map?
 - (i) Yellow colour.
 - (ii) Green colour. [2]
- (e) What is the *compass direction* of?
 - (i) *Idarla (0825) from Bhamra (0420)*.
 - (ii) *Dhana (0623) from Amarapura (0124)*. [2]
- (f) (i) Name the *settlement pattern* seen in the grid square 0819.
- (ii) Name the *drainage pattern* seen in the grid square 0827. [2]
- (g) (i) Name two *man made features* seen in the grid square 0723.
- (ii) Name two *natural features* seen in the grid square 0218. [2]
- (h) (i) What is the *black horizontal line* drawn between 18 and 19 Northings?
- (ii) Name the most important settlement of the region shown on the map extract. [2]
- (i) Draw the conventional symbol for each of the following:
 - (i) Lined perennial well.
 - (ii) Seasonal tank. [2]
- (j) (i) Give one *evidence* to prove that the regions shown on the map extract receive scanty rainfall.
- (ii) What is *.5r* in the grid square 0321? [2]

2. On the outline map of India provided:

- (i) Mark and name *Nilgiris*. [1]
- (ii) Mark and name *Kochi*. [1]
- (iii) Mark and name the *Karakoram Pass*. [1]
- (iv) Mark and name *82½°E Longitude*. [1]
- (v) Shade and name the *Coromandel Coastal Plain*. [1]
- (vi) Mark and name the *River Brahmaputra*. [1]
- (vii) Mark and name the *Gulf of Kutch*. [1]
- (viii) Mark and name the *Satpura*. [1]
- (ix) Mark using arrows, the direction of the *South West Monsoon wind* during summer over the *Arabian Sea* and label it. [1]
- (x) Shade and label a *sparsely populated region* in India. [1]

Ans.



[10]

PART II

(50 marks)

Attempt any five questions from this Part

3. (a) (i) Name one state in the north western part of India that receives rainfall during winter. (c) (i) What do you understand by the term "Burst of Monsoon"?
(ii) What is the source of this rainfall? [2] Name the state that experiences the "Burst of Monsoon". [3]
(b) Give a reason for each of the following: (ii) Even though India gets abundant rainfall during the rainy season, yet, some places experience drought. Explain giving suitable examples.
(i) Rainy season in India is after the summer season. (iii) Why is Shimla colder than Delhi during summer?
(ii) Tamil Nadu has more rainy months than Kerala, yet, Kerala receives more rainfall than Tamil Nadu. [2]

(d) Study the climatic data given below and answer the questions that follow: [3]

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temp. in °C	8.4	11.5	21.6	28.3	35.1	38.5	41.0	38.0	30.8	29.2	15.6	10.2
Rainfall in cms.	1.5	0.9	0.5	–	–	12.5	17.8	18.5	12.5	12.5	6.2	2.1

- (i) Calculate the *annual range of temperature*.
(ii) State whether the station is located in the *coastal area* or in the *continental interior*.
(iii) Name the wind that brings most of the rainfall to this area.

Ans.

- (a) (i) Punjab, Haryana and Western Uttar Pradesh.
(ii) Winter rainfall is the result of temperate cyclones (Western Disturbances) originate from the Mediterranean Sea.
(b) (i) In summer, the land gets heated more than the sea. Hence there develops a center of low pressure on the land. Winds blow from the Indian Ocean to the land (From south- west). So, the second half of the summer season is rainy season (Monsoon) in India.
(ii) Kerala is located in the Western side of the Western Ghats and receives more rainfall during the Monsoon Season. But Tamil Nadu is located in the Eastern side and is in the rain-shadow region of the Western Ghats during the Monsoon season. Tamil Nadu receives rainfall mainly from the Retreating Monsoon when the winds blow from the Bay of Bengal.
(c) (i) (a) The rain bearing Monsoons are extremely strong and violent. Their approach is accompanied by thunder and lightning. This is known as breaking of the Monsoon.
(b) Kerala
(ii) (a) Thar Desert which is located in the western side (rain-shadow region) of the Aravalli Mountains receive less rainfall as the Bay of Bengal branch of the South West Monsoon blow from the East.
(b) Northern part of the Jammu and Kashmir receives almost no rainfall during the Monsoon season as it is in the rain-shadow region of the Himalayas.
(c) The state Meghalaya is surrounded by three hills named Garo, Khasi and Jaintia. So, Cherrapunji and Mawsynram that are located south of these hills receives heaviest rainfall over 1200 cm every year.
- But Shillong, (the capital of the state) which is located a few kilometers away from Cherrapunji receives only 250 cm of rainfall in one year.
- (iii) Shimla is a hill station of the Himalayas. High altitude of the Shimla makes it a low temperature area. Delhi is the part of the Northern Plains. Lower altitude of Delhi is the reason for the higher temperature here.
- (d) (i) (a) 41- 8.4
(b) 32.6 0C (Unit is compulsory)
(ii) Interior/ continental region
(iii) South West Monsoon winds.
4. (a) (i) Name the parent rock that contributes to the formation of red soil.
(ii) How does this soil get its 'red' colour? [2]
(b) Name the following:
(i) a soil that occurs *insitu* and is good for cotton crop.
(ii) soil that is formed due to *high temperature and heavy rainfall*. [2]
(c) With reference to *Alluvial Soil* answer the following:
(i) What are the two types of Alluvial Soil?
(ii) Name an area where Alluvial soil is found.
(iii) Name two crops that grow well in this soil. [3]
(d) (i) Define the term '*Residual*' soil.
(ii) Name two crops that are grown on laterite soil.
(iii) Name two important agents of soil erosion. [3]

Ans.

- (a) (i) Old crystalline rocks.
(ii) Presence of iron oxide in the red soil give the red colour.
(b) (i) Black soil.
(ii) Laterite soil
(c) (i) • Khadar alluvial soil
• Bhargar Alluvial soil
(ii) Northern Plains, Sundarbans, Mahanadi Kaveri, Krishna and Godavari Deltas, Eastern Coastal Plains.
(iii) Wheat, rice, sugar cane, jute, etc.

- (d) (i) Soil which is found in the place of origin.
(ii) Tapioca, cashew tree, tea and coffee.
(iii) Water, wind.
5. (a) State *two ways* by which forests help in protecting the environment. [2]
(b) With reference to *Tropical Deciduous forests* answer the following questions:
(i) Name *two states* where it is found.
(ii) Name *two important trees* found in this forest. [2]
(c) Briefly explain the following:
(i) Why are Tropical Evergreen forests called "*Evergreen*"?
(ii) Why is afforestation essential in the cities that have Iron and Steel industries?
(iii) How do forests act as a *source of income* for the people. [3]
(d) Give a *reason* for each of the following:
(i) The Tropical Deciduous forest is commercially the most important forest belt in India.
(ii) Tropical Evergreen forests occur on the windward side of Western Ghats.
(iii) It is very difficult to move through *tidal forests*. [3]
- Ans. (a) (i) Forests reduce soil erosion.
(ii) They are the source of oxygen.
(iii) Trees give shelter to the animals.
(Any two points)
- (b) (i) Tamil Nadu, Karnataka, Andhra Pradesh, Telangana, Odisha etc.
(ii) Teak, sal, sandalwood etc.
- (c) (i) Trees remain green throughout the year.
(ii) Natural vegetation that surrounds the integrated steel plants reduce the effects of pollution. Trees are a proven solution for air, soil, noise and water pollutions.
(iii) We get many valuable things from the forests. They include ayurvedic medicines, honey, timber etc.
- (d) (i) (1) Trees are hardwood and heavy wood. So, they are best for making furniture.
(2) Forests are open in nature. So, trees can be transported easily from the forests. (any one)
(ii) Tropical evergreen forests are found on the western side of the Western Ghats due to the well distributed heavy rainfall of more than 200 cm.
(iii) (1) Wet nature of the soil and swamps make the movements difficult.
(2) Roots that are grown upwards from the soil. They act like spikes.
(3) Snakes and reptiles like crocodiles are common here.
6. (a) Mention any *two methods* of recharging ground water aquifers. [2]
(b) (i) Name the *most common* means of irrigation used in India.
(ii) Give one reason for the popularity of this means of irrigation in our country. [2]
- (c) (i) Name *two states* of India where *Canal irrigation* is extensively used.
(ii) Name the types of canals used in India.
(iii) Mention one point of difference between the types of canals mentioned by you. [3]
(d) (i) What geographical conditions make irrigation necessary in the country?
(ii) How has irrigation changed the cropping pattern in India?
(iii) Why is there a scarcity of surface water in our country? [3]
- Ans. (a) (1) Dig percolation pits and soak away pits. (These pits in the soil allow the easy percolation of water.)
(2) Practice rainwater harvesting.
(3) Terrace farming, contour ploughing and strip cropping etc. reduces the run-off of the water and allows more percolation of water.
(4) Plant more trees to reduce the runoff of the water.
- (b) (i) Wells
(ii) (1) Easy to dig.
(2) Easy to operate.
(3) Wells can be dug at a very low cost.
(4) Farmers have control over the supply of water.
- (c) (i) Punjab, Haryana, Uttar Pradesh, Bihar, Rajasthan etc....
(ii) (1) Perennial canals,
(2) inundation canals.
(iii) (1) Perennial canals are perennial. Inundation canals are seasonal.
(2) Inundation canals can't regulate the flow of water.
- (d) (i) Indian agriculture depends on Monsoons, which are seasonal. But India has a year-long agricultural season.
(ii) With irrigation, we are able to cultivate throughout the year. Crops that need more water can be cultivated with irrigation.
(iii) (1) India experiences uneven distribution of rain.
(2) Sandy soil and loamy soil require frequent irrigation to do the agricultural activities.
(Any one point)
7. (a) (i) Why is *iron ore* called the back bone of our modern industry?
(ii) Mention *two uses* of iron ore. [2]
(b) Mention *one agricultural* and *one industrial* problem solved by the *Bhakra Nangal Dam*. [2]
- (c) (i) Name the state that is the leading producer of Manganese.
(ii) Name the mineral oil field of India which is the largest producer of Petroleum.
(iii) Mention two advantages of using Geothermal energy over coal. [3]
- (d) (i) Mention one disadvantage of using natural gas as a source of power.

- (ii) How is the residue from a Bio-gas plant put to use?
 (iii) Why is the use of alternative sources of energy becoming essential in modern time? [3]

Ans.

- (a) (i) Iron ore is used mainly for extraction of iron and is further used for the production of steel. Steel is the most popular, most widely used metal in the construction industry. It's also the most recycled material on the planet, making it a very eco-friendly option for construction. People in the construction industry love steel because it can produce extremely sustainable structures that can be built quickly at low prices.
- (ii) (a) Powered iron is used in manufacturing metallurgy products.
 (b) Radioactive iron (iron 59%) is used in medicine as tracer elements.
 (c) Iron blue is used in paints, printing inks etc.
- (b) Agricultural- Water of the Sutlej river is diverted to the agricultural fields (irrigation) of Punjab, Haryana and Rajasthan. It also reduces flood in the Sutlej river. Industrial – Bhakra Nangal is a multi- purpose project mainly used for the generation of electricity. It helps industries by making electricity available.
- (c) (i) Odisha.
 (ii) Mumbai High.
 (iii) (a) Geothermal energy is eco-friendly/ causes no pollution.
 (b) Cheap.
- (d) (i) India imports petroleum products from foreign countries. So, loss of foreign exchange.
 (ii) It causes pollution in comparison to hydro-electric power projects.
 (iii) Natural gas is a non-renewable resource.
 (iv) it is a combustible material. We need to handle it with care.
- (ii) Residue of the bio-gas plants can be used as a manure in the agricultural fields. (Digestate is the material remaining after completion of anaerobic digestion. It is rich in organic nutrients, such as nitrogen and phosphorus.)- It can be used as a fuel in domestic sector (when bio-gas is being produced from cow dung).
- (iii) (1) Fossil fuels are exhaustible and non-renewable.
 (2) Non conventional sources of energy cause less pollution.
8. (a) Mention two points of difference between subsistence farming and commercial farming. [2]
 (b) Explain briefly the following terms:
 (i) *Ginning*.
 (ii) *Ratooning*. [2]
 (c) With reference to the wheat crop answer the following questions: [3]
 (i) Name the state which is the leading producer of this crop in India.

- (ii) Mention the climatic condition found suitable for the cultivation of this crop. [3]

- (d) Give a geographical reason for each of the following:

- (i) Cultivation of *rice* requires flat level land.
 (ii) *Pulses* are important rotation crops.
 (iii) *Bajra* and *Jowar* are grown as dry crops.

Ans. (a)

Commercial agriculture	Subsistence agriculture
Crops are grown for trade.	Crops are raised for the consumption of the farmer's family.
It is practised on large farms.	It is practised on small farms. (Size of the farm is
It is capital intensive.	It is labour intensive.
Modern technology and modern implements are used.	Old technology and old implements are used.

- (b) (i) Separation of seeds from the cotton fiber.
 (ii) A method of growing new crop of sugar cane in which the cane is cut close to the ground and the next crop grows from the stalk left behind.
- (c) (i) Uttar Pradesh.
 (ii) (1) Temperature: 100C to 200C.
 (2) Rainfall: 50 cm to 80 cm.
 (3) Light winter rainfall from the Western Disturbances.
- (d) (i) (1) Stagnant water is needed for the cultivation of rice.
 (2) Flat level land allows easy arrangements of land (like ploughing).
 (3) Agricultural products (or agricultural inputs) can be transported easily from the fields.
 (ii) Pulses are leguminous plants. They add nitrogenous compounds to the soil.
 (iii) Bajra, Jowar (and ragi) need very less water for the cultivation (40 to 70 cm rainfall). These crops can be cultivated even in high temperature regions (up to 320C).
9. (a) Give two reasons as to why Mumbai has developed into an important cotton textile centre. [2]
 (b) (i) What are *Basic Industries*?
 (ii) Give one example of a *Basic Industry* in India. [2]
 (c) (i) State two problems faced by the *Silk Industry* of India.
 (ii) Mention the most important factor for location of *Sugar industries*. [3]
 (d) Briefly answer the following:
 (i) From where does the *Rourkela Steel plant* obtain its supply of coal?
 (ii) From where does the *Tata Iron and Steel plant* obtain its supply of iron ore?
 (iii) Name two cities that are important for the production of *Electronics*. [3]

- Ans. (a) (i) Availability of raw material:** Black cotton soil region of Deccan Trap region provides cheap and quality raw cotton.
- (ii) **Favourable climate:** The humid climate of Mumbai is suited for the production of high quality cotton textile.
- (iii) **Export Facility:** Mumbai is the largest seaport in India. Through it, importing of raw materials and exporting of finished goods are possible.
- (iv) **Finance:** Mumbai is a major center of industries as it is a great financial and commercial center.
- (v) **Market:** There is a large demand for cotton cloth both in peninsular India and rest of the country due to the warm climate throughout the year. **(Any two points)**
- (b) (i) Basic industry is a heavy industry which is fundamental to the other industries. (The industry on which other industries depend.) E.g., Iron and steel industry.
- (ii) Iron and steel industry, petrochemical industry.
- (c) (i) (1) Scarcity in the supply of high quality raw materials/ Seasonal availability of the raw material.
 (2) Scarcity of skilled labours.
 (3) The technology used in this industry is outdated and obsolete.
 (4) Competition from mill made cloth (synthetic textile).
- (ii) Sugar mills are located close to the fields because sugar cane tends to dry very fast.
- (d) (i) Raniganj/ Jharia. (any one)
 (ii) Mayurbhanj
 (iii) Bengaluru, Hyderabad.
10. (a) **With reference to Waterways answer the following questions:**
- (i) **Mention two advantages of inland water transport.**
- (ii) **Why is inland water transport not well developed in India?** [2]
- (b) **Even though all means of transport are well developed in India, yet, road transport remains the most popular means of transport. Justify this statement.** [2]
- (c) **Give a reason for each of the following:**
- (i) **Roadways is not well developed in North East India.**
- (ii) **Railways are under the public sector.**
- (iii) **A good network of transport is of great help for the development of the economy.** [3]
- (d) (i) **Give two disadvantages of Airways.**
- (ii) **Why is there an increase of airway traffic in recent years?** [3]
- Ans. (a) (i)** Waterways are the cheapest means of transport.
- (ii) It is the most suitable means for carrying heavy and bulky goods.
- (iii) It is a fuel efficient and environment-friendly mode of transport.
- (iv) The element of wear and tear (maintenance cost) is less.
- (ii) (1) Most of the rivers are small. Water transport is limited to the areas where rivers are navigable.
 (2) Perennial rivers are found only in North India.
 (3) Swift flowing rivers and waterfalls make transportation difficult in South India.
- (b) (i) Roads are the only possible means of transport in the hilly regions.
 (ii) They are more accessible to different places than other means of transportation. (They link villages to the urban areas.)
 (iii) Roads can act as feeders (supply goods for transportation) to the railways and waterways.
 (iv) Easy to construct and maintain.
 (v) The movement of goods is safer through road transport as the chances of pilferage (theft) are less than the railways. **(any two)**
- (c) (i) Steep slopes of the mountains and swift flowing streams make transportation (and construction of roads) difficult in the northern mountainous regions.
 (ii) (1) To ensure cheap fare charges. (Lower fare charges attract people to the public transport system and thus reduce pollution)
 (2) For the better development of mineral exploration. (Railways are used mainly for the transportation of bulky minerals.
 (Privatization of railways (and airports) is in progress now. So, the above given question has no relevance now.)
 (iii) A good network of transport is of great help for the development of the economy. [1]
 A good network of transport ensures easy movement of raw material and finished products and thus beneficial for the development of the industries and economy.
- (d) (i) (1) Air transport is very costly.
 (2) Flights are often delayed due to bad weather conditions.
 (3) Air transport can carry small tonnage but has high freight charges.
- (ii) (1) Online reservation system is more convenient for booking the tickets.
 (2) Increase in trade and tourism.
 (3) Increase of GDP in many countries.
 (4) Competition of private companies brought fare charges lower and thus attracting more people to airways.
11. (a) (i) **What do you mean by segregation of waste?**
- (ii) **Why is segregation of waste essential before its disposal?** [2]
- (b) **Why should sewage be treated before disposal?** [2]
- (c) **Briefly answer each of the following:**
- (i) **What is the effect of Waste accumulation on terrestrial life?**
- (ii) **What are the consequences of Water pollution?**
- (iii) **What is the benefit of Composting?** [3]

- (d) (i) **How can recycling of Waste help in reducing waste?**
Explain with suitable examples.
 (ii) **Mention one initiative taken by the Government to manage waste.**
 (iii) **How can you as an individual contribute towards waste management?** [3]

Ans.

- (a) (i) Physical separation of waste into different categories.
 (ii) Segregation is needed for recycling.
 (b) Sewage depletes the oxygen and disturbs the balance of aquatic life. Huge quantity of domestic sewage does not give any time to the environment to recover.
- (c) (i) (1) Waste accumulation cause foul smell.
 (2) Increase of rodents and housefly.
 (3) Water run off pollutes the water/ cause air pollution.
 (4) It harms the plant kingdom by changing the soil metabolism.
 (5) Diseases spread due to the increased growth of micro-organisms.
 (ii) Sewage depletes the oxygen (eutrophication) and disturbs the balance of aquatic life. Fish & other aquatic animals may die due to the pollution created by waste.
- (iii) Composting is a method of decomposing the organic solid waste into humus, using micro-organisms.
 (1) Compost is used in the agricultural fields to improve the fertility of the soil.
 (2) Composting also reduces the pollution due to bio-degradable waste.
- (d) (i) We can make new materials from the used items. E.g. Card board from used paper. It reduces the waste as it converts a useless product to useful product.
 (ii) (1) Swachh Bharat Abhiyan has contributed in reducing the waste generation through composting.
 (2) Government encourages paperless processing (Digital India).
 (3) Government encourages 3R's of waste management. It takes initiatives to recycle.
 (4) Subsidy is given for bio-gas plants.
 (iii) (1) Recycle (i.e., sell the scrap materials) the non-biodegradable waste like plastic, paper, glass etc.
 (2) Re-use the materials like plastic bottles, carry bags etc.
 (3) Convert bio-degradable waste to compost or use them for the preparation of bio-gas.

