

ICSE Solved Paper 2018

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 [].

To be supplied with this Paper : Survey of India Map Sheet No. 45D/7 and 20 cm of twine.

Note :

- (i) In all Map Work, make wise use of arrows to avoid overcrowding of the map.
- (ii) The extract Survey of India Map Sheet No. 45D/7 must not be taken out of the examination hall. It must be handed over to the Supervising Examiner on completion of the paper.
- (iii) The Map given at the end of this question paper must be detached, and after marking, must be fastened to your answer booklet.
- (iv) All sub-sections of the questions attempted must be answered in the correct serial order.
- (v) All working including rough work should be done on the same answer sheet which is used to answer the rest of the paper.

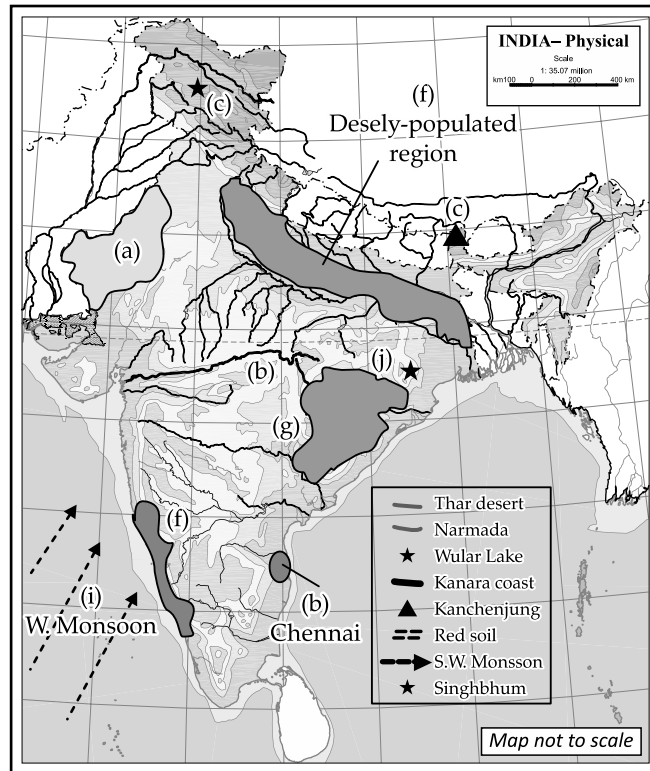
PART I

(30 marks)

Answer all the questions.

- *1. Study the extract of the Survey of India Map sheet No. 45D/7 and answer the following questions :
- | | |
|---|--|
| (a) Give the six figure grid reference for : [2] | (i) The most commonly used means of transport in the area shown on the map extract. |
| (i) Δ 268 | (ii) The main occupation of the people of the region in the south eastern part of the map extract. |
| (ii) Temple south east of Khara | (j) (i) What is the compass direction of Rampura (9580) from Karja (9781) ? [2] |
| (b) Name the following : [2] | (ii) Identify the landform marked by contours in 9782. |
| (i) The drainage pattern seen in 9185. | 2. On the outline map of India provided : |
| (ii) The pattern of settlement seen in 9787. | (i) Shade and label Thar desert. [1] |
| (c) What do the following symbols mean ? [2] | (ii) Label the river Narmada. [1] |
| (i) 3r in 9089. | (iii) Shade and name the Wular lake. [1] |
| (ii) 200 in 9383. | (iv) Shade and label Kanara coast. [1] |
| (d) Name two types of vegetation found in the region east of easting 93. [2] | (v) Mark and name Mount Kanchenjunga. [1] |
| (e) Give two evidences which suggest that the rainfall received in the region shown on the map extract is seasonal. [2] | (vi) Shade and label a densely-populated region in India. [1] |
| (f) Calculate the area of the region between 85 – 90 northing and 90 – 95 easting. Give your answer in kilometer. [2] | (vii) Shade and label a region with Red soil in India. [1] |
| (g) Mention any two manmade features and two natural features in grid square 9080. [2] | (viii) Mark with a dot and name Chennai. [1] |
| (h) What is the direct distance in kilometers between the surveyed tree west of Rampura (9580) to the chhatri in Juvol (9282) ? [2] | (ix) Mark and label the Arabian Sea branch of S.W. Monsoon. [1] |
| (i) Mention : [2] | (x) Mark with a dot and name Singhbhum. [1] |

Ans.



PART II

(50 marks)

3. (a) How is the *winter rainfall* of the northwest part of India different from the *winter rainfall* of the southeast part of India ? [2]
- (b) (i) Name a *state* that is the first to experience the *onset of the monsoon*. [2]
- (ii) How does the “Mango shower” influence the state of *Karnataka* ?
- (c) Give a reason for each of the following : [3]
- (i) *Kanyakumari* experiences equable climate.
- (ii) *Central Maharashtra* gets less rainfall than the coastal area of *Maharashtra*.
- (iii) *Jaipur* has a higher annual range of temperature than *Mumbai*.
- (d) Write three differences between summer monsoon season and retreating monsoon season. [3]

- (ii) Towards the close of the summer season, pre-monsoon showers are common in Karnataka. This help in the early ripening of mangoes, thus often referred to as ‘mango showers’.
- (c) (i) Kanyakumari is located at the top of the Indian Ocean where the Bay of Bengal and the Arabian Sea meet, moderating the climate making it equable or maritime.
- (ii) Coastal area lies on the windward side of the Western Ghats while Central Maharashtra is located on the leeward side. Windward refers to the direction from which the rain-bearing south west monsoon winds approach the land from the sea.
- (iii) Jaipur has higher annual range of temperature because it is far from the sea and lies in desert area that has higher range of temperature. Mumbai is close to the sea and has low range of temperature.

Ans.(a) The North West part of India receives rainfall primarily from the Western disturbances which originate over the Mediterranean Sea. The coastal areas of Eastern India on the other hand receive rainfall from the North east trade winds, which blow from the Bay of Bengal.

- (b) (i) The Arabian Sea Branch of the Southwest Monsoon first hits the Western Ghats of the coastal state of Kerala, India, thus making this area the first state in India to receive rain from the Southwest Monsoon.

(d)	Summer monsoon	Retreating monsoon
	Wind blows from June to September	Wind blows from October to November
	Wind travels from sea to land	Wind travel from land to sea

Carries moist wind	Carries dry wind
Consists of two branches: Arabian Sea Branch and Bay Of Bengal Branch	Only has one branch

4. (a) (i) Why does *alluvial soil* differ in texture ? [2]
 (ii) State two cash crops that grow well in alluvial soil.
- (b) With reference to black soil answer the following: [2]
 (i) Name one important crop which grows in this soil.
 (ii) Give one *chemical property* of this soil.
- (c) Give one geographical reason for each of the following : [3]
 (i) Red soil requires irrigation.
 (ii) Afforestation prevents soil from getting eroded.
 (iii) Laterite soil is red in colour.
- (d) (i) What is soil erosion ? [3]
 (ii) Mention two causes of soil erosion in India.

Ans. (i) The Alluvial Soil of the northern plain is formed due to the deposition of alluvium which is brought from the Himalayan region. These are light in colour. The Alluvial Soil of the southern rivers is formed due to the deposition of alluvium brought mainly from the Deccan plateau, which is volcanic in origin.

- (ii) Sugarcane and Jute.
- (b) (i) Cotton
 (ii) The black soil in India is rich in metals such as Iron, Magnesium and Aluminium because these are made up of volcanic rocks and lava-flow.
- (c) (i) The red soil is mostly loamy and hence cannot retain water like the black soil. Therefore, it requires irrigation to grow cotton, wheat, rice, pulses, millets, tobacco, oil seeds, potatoes, and fruits.
 (ii) Trees reduce the rate of erosion by protecting the soil from the impact of rain. The roots of the trees help to hold the soil layer firmly, it is evident that it helps not to make the soil loose and prevents erosion.
 (iii) Laterite is a soil and rock type rich in iron and aluminium, and is commonly considered to have formed in hot and wet tropical areas. Red soil indicates the presence of iron oxides.
- (d) (i) Soil erosion is the displacement of the upper layer of soil, one form of soil degradation. Top soil is the top layer of soil and is the most fertile because it contains the most organic, nutrient-rich materials.

(ii) Two causes of soil erosion are :

- (1) Deforestation has caused widespread erosion in Western Ghats, Uttar Pradesh and Himachal Pradesh.
- (2) Slash and burn or shifting cultivation is practised in hill areas of North-East, Chhotanagpur, Odisha, Madhya Pradesh and Andhra Pradesh. Vast areas have suffered an erosion of soil in hill areas of North-Eastern states because of shifting cultivation.
5. (a) (i) Name an area in India where Tropical Monsoon forest is found. [2]
 (ii) How is this forest of great commercial value to India ?
- (b) With reference to Littoral forest, answer the following questions : [2]
 (i) Why do the trees in the forest grow aerial roots ?
 (ii) Name one area in India where this forest is found.
- (c) (i) Name a state in India where thorn and scrub forest is found. [3]
 (ii) Give two ways by which the trees that are found here have adapted to the climate.
- (d) (i) Give two ways in which forests are important.
 (ii) Mention one forest conservation method followed in India. [3]
- Ans. (a) (i) Western Ghats, Tamil Nadu state and the Andaman and Nicobar Islands.
 (ii) Tropical Monsoon forests are very important because they are hard, durable, and useful in construction work and furniture; and the main trees are teak, sal, shisham, sandalwood and khair.
- (b) (i) Littoral forests refer to trees that grow at coastal saline or brackish water. In such regions soil is salty or anaerobic means poor oxygen in nature. The soil is not able to support the underground root system with enough oxygen. Therefore, the underground root system outgrows aerial roots that grow vertically up to the air above the soil to obtain the requirements.
 (ii) Littoral forests are found along the Andaman and Nicobar Islands and the delta area of the Ganga and the Brahmaputra.
- (c) (i) Semi-arid regions of Rajasthan.
 (ii) (a) These forests have long roots and sharp thorns. They help them get moisture from depths. Sharp thorns protect them from animals.
 (b) The stems are succulent to conserve water and leaves are mostly thick and small to minimise evaporation.

- (d) (i) Firstly : Forests are mainly important because they stabilize climate. **Secondly:** Forests regulate the water cycle, and provides habitat to thousands of life forms.
- (ii) Loss of forests can be made up by the massive programme of tree plantation (Afforestation).
6. (a) **There is plenty of rain in India during the rainy season, yet we need irrigation. Give two reasons to support this statement. [2]**
- (b) (i) **Name three traditional means of irrigation. [2]**
- (ii) **Give a reason why traditional means of irrigation are still important in most parts of India.**
- (c) (i) **Differentiate between Surface water and Ground water. [3]**
- (ii) **Mention two reasons to explain as to why we are facing water scarcity in recent times.**
- (d) (i) **What is rain water harvesting ? [3]**
- (ii) **What are the advantages of rain water harvesting?**
- (iii) **Name two water harvesting systems practised in India.**

- Ans.(a) (i) High-yielding varieties (HYV) of wheat and rice, need plenty of water. Uncertain nature of monsoon in India does not fulfill the enough water requirements for these HYV seeds.
- (ii) The monsoon rainfall is very uncertain. It may arrive early and linger on for a long time or it may arrive too late. It may cause too heavy rainfall in some parts and too little in others. It may cause floods and droughts.
- (b) (i) Three traditional means of irrigation are - a. Check Basin Method, b. Furrow Irrigation Method, c. Strip Irrigation Method.
- (ii) Traditional means of irrigation method is also prevalent in India, because,
- (a) It does not cause any burden on the farmer.
- (b) It is more useful in soils having lesser infiltration.
- (c) It does not require any technical knowledge.
- (d) It irrigates more area and a lesser economic investment.

	Surface water	Ground water
1.	Water found in lakes, rivers and streams is surface water.	Water that is trapped under the earth's surface is the ground water.
2.	Drawn into the public water supply for the human consumption.	Pumped out of the ground after drilling a deep well.

3.	Includes the solid forms of water— snow and ice.	Includes soil water.
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- (ii) One - Inefficient use of water for agriculture and Two- reduction in traditional water recharging areas.
- (d) (i) Rainwater harvesting is a technique of collection and storage of rainwater into natural reservoirs or tanks, or the infiltration of surface water into subsurface aquifers.
- (ii) Advantages :
- (a) It is absolutely free to use and a clean source of water.
- (b) It is environmentally friendly.
- (c) It is excellent for irrigation.
- (d) It reduces the use of ground water.
- (iii) (a) Rooftop harvesting.
- (b) Groundwater recharge.
7. (a) **Give two advantages that non-conventional energy source have over conventional energy sources. [2]**
- (b) (i) **Mention one advantage of the use of natural gas over coal or petroleum. [2]**
- (ii) **Name one off shore oil field of India.**
- (c) **Answer the following : [3]**
- (i) **State one industrial use of copper.**
- (ii) **Mention one advantage of generating power from bio-gas.**
- (iii) **Name the mineral that toughens steel and makes it rust-proof.**
- (d) (i) **Name the metal obtained from Bauxite. [3]**
- Give any one use of the metal mentioned by you.**
- (ii) **Which multi-purpose project provides power to both Punjab and Himachal Pradesh ?**

- Ans. (a) Energy sources are :
- (i) Most of the non-conventional power resources are cheaper and renewable as compared to the conventional sources.
- (ii) Power from non-conventional is a must in order to reduce carbon dioxide emissions of the coal-based power plants.
- (b) (i) Natural gas is the cleanest fossil fuel energy source available. Natural gas also produces nearly a one-third less carbon dioxide than coal and almost half less than oil when burned.
- (ii) Bombay High is an offshore oil field 176 kms off the coast of Mumbai, India.
- (c) (i) Most copper is used in electrical equipment such as wiring and motors.
- (ii) Bio-gas is a renewable, as well as a clean source of energy.

- (iii) Stainless steel, the main corrosion-resistant metal alloy, is formed when chromium is added to iron in sufficient concentrations.
- (d) (i) The metal obtained from bauxite is aluminium. Bauxite is an important ore of aluminium that has wide variety of uses like in making aeroplanes.
- (ii) Bhakra Dam is a concrete gravity dam on the Sutlej River in Bilaspur, Himachal Pradesh in northern India. The dam provides irrigation to 40,000 km² of fields in Punjab, Haryana, and Rajasthan.
8. (a) **With reference to the cultivation of tea answer the following :** [2]
- (i) Why is tea grown on hill slopes ?
- (ii) Why tea bushes have to be pruned at regular intervals ?
- (b) **With reference to rice cultivation answer the following :** [2]
- (i) Why does the cultivation of rice require a lot of manual labour ?
- (ii) Mention two geographical conditions which suit the cultivation of rice.
- (c) Give a geographical reason for each of the following : [3]
- (i) Cotton is a labour intensive crop.
- (ii) Jute is retted after it has been harvested.
- (iii) The growing of pulses is important in India.
- (d) (i) Why is agriculture important in India ? [3]
- (ii) Name the two main agricultural seasons of India.
- (iii) What is mixed farming ?
- Ans. (a) (i) Tea plantation need evenly distributed rainfall throughout the year with no water logging. The hill slopes prevents the conditions of water logging as they provide an easy drainage of the rain water. Moreover, the tea plants grow well in the loamy soil, which is found mostly over the hill slopes.
- (ii) Tea bushes are pruned at regular intervals as it helps in balancing of growth of the plants in relation to their productivity. As the plant grows, careful pruning determines its heights. Pruning depends on its growth, shape, site, and the weather.
- (b) (i) Rice production is generally highly labour intensive. Due to crops nature, rice seeds are hand sown, and then the seedlings are hand transplanted into flooded fields. Each and every work in such crop production like as harvesting, threshing or willowing stage demands a high labour input.
- (ii) Geographical conditions of rice :
- (a) **Temperature** : 16°C – 27°C and rainfall 100 cm to 200 cm is ideal for rice growing.
- (b) **Soil** : Alluvial soil or the fertile river basins are best suitable for rice cultivation. Loamy and clayey soils are also good for this crop.
- (c) (i) Cotton is the most important fibre crop not only of India but also in the entire world. Mechanisation for picking cotton has not been made till date; therefore a lot of cheap and efficient labour is required at the time of picking.
- (ii) The jute plants are cut to the ground and tied into bundles. The stalks are tied into bundles and soaked in water for about 20 days. High temperature of water quickens the process of retting. After retting is complete, the bark is peeled from the plant and fibre is removed.
- (iii) Pulses are rich in proteins and found to be the main source of protein for vegetarian people of India. They can be grown on all types of soil and climatic conditions. Pulses being legumes fix atmospheric nitrogen into the soil. They play an important role in crop rotation, mixed and intercropping, as they help maintain the soil fertility. They supply additional fodder for cattle.
- (d) (i) India is mainly an agricultural country. Agriculture is the most important occupation for most of the Indian families. In India, agriculture contributes about sixteen percent (16%) of total GDP and ten percent (10%) of total exports.
- (ii) Based on monsoon, the Indian cropping season is classified into two main seasons- (i) Kharif cropping season is from July – October and (ii) Rabi cropping season is from October-March (winter).
- (iii) Cultivation of crops along with rearing of animals for meat or milk is called Mixed Farming. For example, the same farm may grow cereal crops, and keep cattle, poultry, etc.
9. (a)(i) **Name the private sector iron and steel plant of India.** [2]
- (ii) **From where does it get its supply of :**
1. Iron ore
 2. Manganese
 3. Coal
- (b) **Mention any two problems faced by the cotton textile industry of India.** [2]
- (c) **Give a geographical reason for each of the following :** [3]
- (i) *Silk industry* is doing particularly well in Karnataka.
- (ii) *Petrochemical products* are gaining popularity in modern times.
- (iii) *The electronics industry* is proving to be an asset for our country in the field of education.

(d) Name the following : [3]

(i) A city most famous for electronics and hence called "The Electronics Capital of India".

(ii) The location of an iron and steel industry set up with German collaboration.

(iii) A by-product of sugar industry which is used in the manufacture of wax and shoe polish.

Ans. (i) Tata Iron and Steel Company (TISCO)

(ii) 1. Iron ore - From Noamundi mines of Singhbhum in Jharkhand and Gurumahisani mines of Mayurbhanj in Odisha.

2. Manganese - From Joda mines of Kendujhar district in Odisha.

3. Coal - From Jharia and Raniganj coal mines

(b) Two problems faced by cotton textile industries in India are :

(i) Power supply is erratic.

(ii) Stiff competition from the synthetic fibre industry in terms of cost and convenience of use.

(c) (i) Silk industry is doing well in Karnataka due to the following reasons:

(1) Temperature ranges between 16°C to 30°C which is favourable for the rearing of silk worms.

(2) Enough fresh water free from alkaline salts for the processing of silk fibre is also available.

(3) Karnataka is the state where 10 silk exchanges and 66 cocoon markets are there that help in the silk trade.

(ii) Petrochemicals are used to create most of the everyday items we use, from vehicles to a variety of electronics. Petroleum is also the raw material for many chemical products, including pharmaceuticals, solvents, fertilizers, pesticides, synthetic fragrances, and plastics.

(iii) Electronics industry engages and challenges students with innovative and interactive methods. Thus, learning becomes interesting nowadays. It also reduces weight instead of carrying lots of books, students just carry a laptop or a tablet.

(d) (i) Bengaluru is most famous for electronics and hence called "The Electronics Capital of India."

(ii) Rourkela Steel Plant (RSP) - Located in Rourkela, Odisha. It is the first integrated steel plant in the public sector in India that was set up with West German collaboration.

(iii) Sugarcane wax is a wax extracted from sugarcane.

10. (a) Give two reasons for the "means of transport" being called the lifelines of a nation's economy. [2]

(b) Give two ways in which rail transport is useful for the people of India. [2]

(c) (i) State one advantage of inland waterways. [3]

(ii) State one advantage of roadways.

(iii) State one disadvantage of water transport.

(d) Give three reasons as to why airways are becoming a popular means of transport in modern India. [3]

Ans. (a) (i) Means of transport provide seamless movement of goods and people and thus facilitate various economic activities.

(ii) Because of transport raw materials reach the factory and finished reach the consumer. Agriculture also depends greatly on transportation.

(b) (i) Lakhs of skilled and unskilled people are employed in operating the railway.

(ii) Railways have increased the mobility of labour and capital, which has contributed to the rapid industrialisation of the country.

(c) (i) Rivers are a natural highway that does not require any cost of construction and maintenance.

(ii) Roadways can enable door-to-door delivery of goods and materials.

(iii) Rivers and canals cannot be operated for transportation throughout the year as water may freeze during winter or water level may go very much down during summer.

(d) (i) Air transport is the fast speed means of transport and is free from physical barriers like river, mountains and valleys, etc.

(ii) The aviation sector supports 1.7 million jobs in India.

(iii) Air transport provides comfortable, efficient and quick transport services.

11. (a) Give two reasons as to why there is a need for safe waste disposal. [2]

(b) How can waste be reused? Explain with the help of an example. [2]

(c) Mention one way in which waste accumulation has an effect on the following : [3]

(i) aquatic life

(ii) terrestrial life

(iii) landscape

(d) What do you mean by the following terms? [3]

(i) Segregation.

(ii) Composting.

(iii) Dumping.


Ans. (a) (i) To control different types of pollution, i.e., air pollution, soil pollution, water pollution, etc.

(ii) To stop the spread of infectious diseases.

(b) There are lots of great ways to re-purpose all the paper in your life. Get creative and create amazing and useful woven baskets and trays


- out of magazines and newspapers. Recycle newspapers, grocery bags and magazines as wrapping paper.
- (c) (i) Two-thirds of aquatic life is considered to be an endangered species because of improperly disposed chemicals.
- (ii) Hazardous wastes may pollute soil, air, surface water and underground water. The oil pollutants may affect man, plants and animals.
- (iii) To dump plastic bags, containers, vegetables, fruit peels, cans, etc. in the open area without thinking about its consequences spoil the beauty of the landscape.
- (d) (i) Segregation refers to the separation of wet waste and dry waste, the purpose is to recycle dry waste easily and to use wet waste as compost.
- (ii) Composting is the natural process of decomposition of organic waste that yields manure or compost, which is very rich in nutrients.
- (iii) Dumping or landfills are large areas on the outskirts of cities where the waste is deposited on or in the ground and covered with earth.







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