

ICSE Solved Paper 2022 Semester-2 Geography

Class-X

(Maximum Marks : 40)

(Time allowed : One and a half hours)

Attempt all questions from Section-A and any three questions from Section-B.

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

SECTION A

(Attempt all questions)

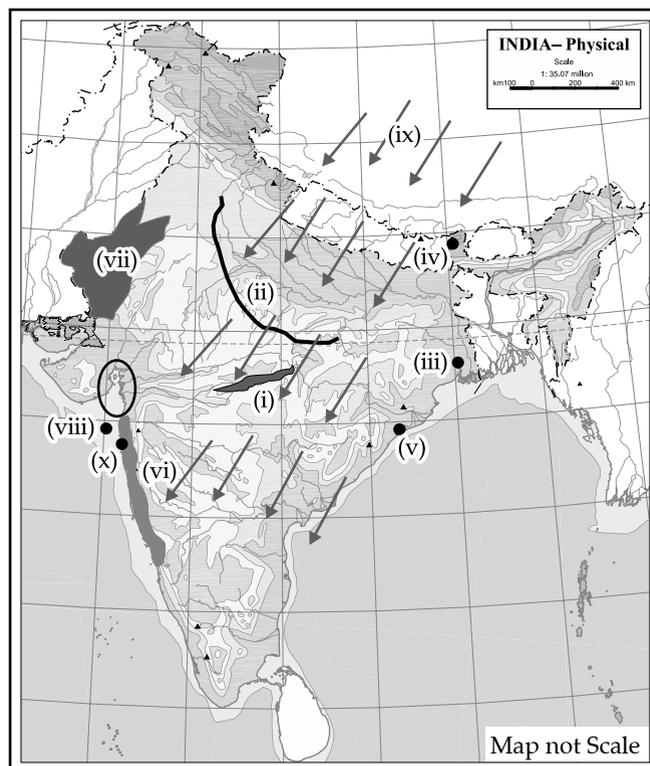
1. On the outline map of India provided mark and name the following: [10]

- (i) Vindhya Mountains
- (ii) River Yamuna
- (iii) Kolkata
- (iv) Kanchenjunga
- (v) Lake Chilika

- (vi) Konkan coastal plain
- (vii) Thar Desert
- (viii) Gulf of Khambhat
- (ix) Mark with arrows the direction of North East Monsoon Winds
- (x) Mumbai High

Ans.

(i)



- (i) Vindhya Mountains
- (ii) River Yamuna
- (iii) Kolkata
- (iv) Kanchenjunga
- (v) Lake Chilka or Chilika

- (vi) Konkan coastal plain
- (vii) Thar Desert
- (viii) Gulf of Khambhat
- (ix) Arrows marking North East Monsoon Winds
- (x) Mumbai High

SECTION B

(Attempt any *three* questions from this Section)

2. (i) (a) Give any one use of Copper. [2]
 (b) Name two Indian states in which iron ore is found in abundance.
- (ii) With reference to Hirakud project answer the following: [2]
 (a) On which river is it based?
 (b) Name an Indian state benefitted by Hirakud project.
- (iii) Give three disadvantages of using coal. [3]
- (iv) (a) Mention two advantages of nuclear power. [3]
 (b) What is the advantage of using solar energy in place of the conventional sources of energy?

- Ans. (i) (a) As a good conductor of heat and electricity, copper is mostly used in electrical equipments as wiring and in motors.
 (b) The states that have iron ore in abundance are Jharkhand, Orissa, Chhattisgarh, Goa, Maharashtra and Karnataka.
- (ii) (a) River Mahanadi
 (b) Odisha
- (iii) **Three disadvantages of using coal are:**
 (a) As a non-renewable resource, excess use of this resource can lead to its exhaustion in near future.
 (b) Use of coal results into air pollution.
 (c) The calorific value of the coal is very less due to which it is not a very efficient fuel.
- (iv) (a) **Two advantages of nuclear energy are:**
 (i) Large amount of nuclear energy can be generated using small amount of nuclear fuel like uranium and plutonium.
 (ii) It emits least amount of carbon and thus results in less air pollution.
 (b) The advantages of using solar energy in place of conventional sources of energy are as follows:
 (i) It is a clean and pollution free source of energy.
 (ii) It is a renewable source of energy.
 (iii) It reduces the dependency on conventional sources of energy such as coal and petroleum.

3. (i) **Mention two problems faced by the agriculture sector of India.** [2]
 (ii) (a) **Mention any one climatic condition found suitable for growing cotton.** [2]
 (b) **Name the state that is the leading producer of cotton in India.**
- (iii) **With reference to Rice cultivation answer the following:** [3]
 (a) **Name the soil found suitable for its growth.**
 (b) **Name the state that is the largest producer of this crop in India.**
 (c) **In which cropping season is it generally grown in India?**
- (iv) (a) **Name the state that is the largest producer of sugarcane in India.** [3]
 (b) **Why more than two ratoon crops are not advisable for sugarcane farmers?**
 (c) **What is Zayad cropping season?**

- Ans. (i) Agriculture sector in India is facing numerous problems. Some of them are as follows:
 1. The low yield i.e. 30%-50% lower than the developed nations. Excessive use of fertilizer led to decrease in soil fertility and hence results into low yield.
 2. The average farm size in India is less than 1 hectare. Thus the farms are devoid of new farm technologies and best farming methods
 3. There are problems related to the ineffective irrigation, unavailability of credit for farming and lack of nutrients in the soil.
- (ii) (a) The climatic condition essential for growing cotton are as follows.
 1. **Warm climate:** The summer temperature of 21°- 27° C, abundance of sunshine and 210 days frost free days are essential for healthy growing cotton.
 2. **Moderate to light rainfall:** The rainfall amounting between 50 and 80 cm is adequate for the growth of cotton.
 (b) Gujarat and Maharashtra are the leading producers of cotton in India
- (iii) (a) Silt clay loam, silt clay and clay are the best soils for the growth of rice.
 (b) West Bengal is the largest producer of rice in India.

- (c) Rice is generally grown in Kharif season. The crop is sown during June or July and harvested during November and December.
- (iv) (a) Uttar Pradesh is the largest producer of sugarcane in India.
- (b) More than two ratoon crop is not advisable for sugarcane farmers because:
- (i) It would lead to the yielding of thinner sugarcane with low sugar content.
- (ii) It would increase the risks of pest and diseases.
- (c) It is a short duration cropping season usually occur between Rabi and Kharif season and it ranges from March to June.
4. (i) Differentiate between mineral based and agro-based industry giving suitable example for each from India. [2]
- (ii) Give two ways in which petrochemical industry is important for India. [2]
- (iii) With reference to Tata Steel plant answer the following: [3]
- (a) Where is it located?
- (b) From where does it get its coal requirements?
- (c) From where does it get its iron ore requirements?
- (iv) (a) Name any two by products of the sugar industry. [3]
- (b) Why are the cotton textile industries mostly located in the coastal areas?

Ans. (i)

Mineral Based Industries	Agro-Based Industries
These type of industries use mineral ore as their raw materials.	These type of industries use plants and animal products as their raw materials.
These industries are usually capital intensive industries and thus require a huge amount of capital.	These industries do not require huge amount of capital.
Tata Steel Limited is the example of mineral based industries as it produces steel and steel products by using iron ore as its raw material.	Dalmia Bharat Sugar & Industries Ltd. is the example of agro based industries as it uses sugarcane as its raw material to produce sugar.

- (ii) 1. The petrochemical industry plays an important role in the growth of agricultural and industrial sector in India as it fulfils the large energy demand of these industries.
2. Besides this, petrochemical industries also provides products such as synthetic fibres and polymers which can be used as the raw material for industries like furniture, automobile industries, clothing, constructions, housing, packaging, medical appliances and many more.
- (iii) (a) Tata steel plant is located in Jamshedpur district of Jharkhand.
- (b) Tata steel plant get its coal from Jharia and Bokaro coalfields of Jharkhand.
- (c) Tata steel plant get its required iron ore from Gorumahisani mines of Mayurbhanj district in Odisha and Noamundi mines in Singhbhum district of Jharkhand.
- (iv) (a) The two by-products of sugar industry are molasses, bagasse and press muds. [Any two]
- (b) Most of the cotton and textile industries are located in the coastal areas because the humid climate of these regions are suitable for spinning and the moisture in the air increases the strength of the cotton.
5. (i) Mention two advantages of using roadways. [2]
- (ii) What is the purpose of developing the Golden Quadrilateral in India? [2]
- (iii) Mention three disadvantages of waterways. [3]
- (iv) Give a reason for the following: [3]
- (a) Railways are not well developed in the North Eastern States of India.
- (b) Air transport has gained popularity in recent times in India.
- (c) NSEW is helpful for India.

Ans.

- (i) Roadways are having multiple advantages; two among them are as follows.
- (a) They provide door to door service.
- (b) There is lesser risk of damage in transit.

- (c) The roadways provide services even to the rural areas.
- (d) Roadways provide flexibility in services.
- (e) They are suitable for shorter distances.
- (f) They are cheaper means of transport.
- (g) They are the feeder for other means of transport. **[Any two]**
- (ii) Golden Quadrilateral plays a pivotal role in the growth of the country's economy in the following ways:
- (a) By developing this quadrilateral add comma major cities and ports were connected to faster transport network.
- (b) It also provides better access to the market from smaller towns.
- (c) It reduces agricultural spoilage in transport.
- (iii) The disadvantages of waterways are as follows.
- (a) This is the slowest means of transport.
- (b) Navigation is quite a challenge during monsoon.
- (c) There is always a fear of sinking.
- (d) This is not suitable for small businesses.
- (iv) (a) The North eastern region of India is marked by highly undulating terrains and big rivers, dense forests that create difficulty in laying of railway track in these regions. Moreover these terrains are prone to natural calamities which increases the level of difficulty in construction of railways.
- (b) Air transport has gained popularity in recent times in India because:
- (i) it provides fastest means of transport.
- (ii) it is the most comfortable way of transit.
- (iii) it caters to various emergency services.
- (c) NSEW corridor project is one of the key projects catering to Indian highway network because it connects important manufacturing units, commercial hubs and cultural centres of India.
6. (i) **Why is there a need for waste management in large metropolitan cities?** **[2]**
- (ii) **Why is composting considered a safe method of waste disposal?** **[2]**
- (iii) (a) **Why should we reuse waste?** **[3]**
- (b) **How can farm waste be made useful?**
- (c) **How is dumping of waste harmful?**
- (iv) **Mention three ways to reduce waste generation at home.** **[3]**
- Ans. (i) Waste disposal is quite a task in metropolitan cities as dumping of waste in landfills sometimes release methane gas which increases the level of air pollution in the city. Thus the waste needs to be managed rather than depositing or dumping.
- (ii) Composting is considered as one of the efficient ways of treating biological waste, because the microorganisms decomposes the organic waste. This not only reduces the size of the waste to 50% but it gets converted into natural fertilizer known as compost or humus.
- (iii) (a) The waste materials needs to be reused as far as possible because recycling needs a lot of energy to dismantle and re-manufacture new products. Moreover, the process of reuse reduces the waste and pollution and also the raw material requirement. Thus it saves both forest and supply of water.
- (b) Farm waste can be recycled and reused in following ways:
- (1) It can be used as biofuels such as biodiesel and ethanol.
- (2) By products of sugarcane can be a good substitute for plastics. Different products such as bowls, plates, and containers can be manufactured from these by products.
- (3) Farm compost can be dumped under specific condition in order to produce compost or humus which can be used for plant growth.
- (c) Dumping of waste damages environment and hence it is often considered illegal to dump waste. The place where the waste materials are dumped, its adjacent area gets affected by land, water, soil and air pollution. The surface water as well as ground water gets contaminated by the dumped waste.
- (iv) There are various ways to reduce waste generation at home. Important among them are as follows:
- (a) To avoid the use of single use plastics.

- (b) To use reusable bottles and cups for having beverages while travelling.
- (c) Use of reusable bags for shopping of groceries, vegetables and other essential items.
- (d) By donating unused materials to the needy in our surroundings.
- (e) By dumping bio-waste in the gardens in order to get compost for plant growth.

[Any three]

