

GEOGRAPHY

Maximum Marks: 70

Time Allotted: Three Hours

Reading Time: Additional Fifteen Minutes

Instructions to Candidates

- You are allowed additional fifteen minutes for only reading the question paper.
- You must **NOT** start writing during the reading time.
- This question paper has **9** printed pages and a **map**.
- It is divided into **three** sections and has **13** questions in all.
- All questions are compulsory.
- Section A has **fourteen subparts** which are very short answer questions. Each question carries 1 mark.
- While attempting **Multiple Choice Questions** in Section A, you are required to write **only ONE** option as the answer.
- **Sketch maps and diagrams should be drawn wherever they serve to illustrate your answer.**
- **Make the index/ legend for Q1(A) section on the Map only. Answers for Q1(B) should be written in the answer booklet only.**
- **Section B** has **seven** questions which are short answer questions. Each question carries 4 marks.
- **Section C** has **four** questions which are long answer questions. Each question carries 7 marks.
- **Internal choices** have been provided in **two questions in Section B** and in **one question in Section C**.

Instruction to Supervising Examiner

- Kindly read aloud the Instructions given above to all the candidates present in the examination hall.

SECTION A – 14 MARKS

Question 1

A. Refer to the given outline Map of India and attempt subparts (i) and (ii) on map only.

(i) Mark and label the following on the outline Map of India. **(Recall) [3]**

- (a) The northern most Trans-Himalayan Mountain range
- (b) The coastal plain, which runs from south of Goa to Kanyakumari
- (c) The largest salt water lake on the eastern coast

(ii) Label the following on the outline Map of India. **(Recall) [3]**

- (a) The north terminal of the 'North-South Corridor' marked S is _____
- (b) The river which originates near Mahabaleshwar marked W is _____
- (c) The state in India with the highest literacy marked T is _____

B. Refer to the given outline Map of India, identify the correct option and write it in the answer booklet provided to you. [1]

(i) The latitude of India marked R: **(Recall)**

- (a) $68^{\circ}7'E$
- (b) $82^{\circ}30'E$
- (c) $8^{\circ}4'N$
- (d) $37^{\circ}6'N$

(ii) The riverine sea-port marked V is: **(Recall) [1]**

- (a) Mumbai
- (b) Haldia
- (c) Paradwip
- (d) Kolkata

(iii) The nuclear power station marked with \blacklozenge is: **(Recall) [1]**

- (a) Kalpakkam
- (b) Kaiga
- (c) Rawatbhata
- (d) Narora

- (iv) A centre of sugar industry marked with a Δ is: (Recall) [1]
- (a) Ahmednagar
 - (b) Pune
 - (c) Mumbai
 - (d) Ahmedabad

Question 2

Given below are two statements marked Assertion and Reason. Read these statements carefully and choose the correct option.

- (i) **Assertion:** The rivers on the western coast carry a lot of sediments but do not form a delta. [1]

Reason: They have a large catchment area and form estuaries. (Analysis)

- (a) Both Assertion and Reason are true and Reason is the correct explanation for Assertion.
- (b) Both Assertion and Reason are true but Reason is not the correct explanation for Assertion.
- (c) Assertion is true and Reason is false.
- (d) Both Assertion and Reason are false.

- (ii) **Assertion:** Mineral based industries contribute significantly to India's agrarian economy. [1]

Reason: The industrial growth leads to an increase in the foreign exchange.

(Analysis)

- (a) Both Assertion and Reason are true and Reason is the correct explanation for Assertion.
- (b) Both Assertion and Reason are true but Reason is not the correct explanation for Assertion.
- (c) Assertion is true and Reason is false.
- (d) Both Assertion and Reason are false.

- (iii) Observe the relation between the first two words and fill in the fourth word. [1]

Statutory town: Municipal Corporation :: Ribbon settlement: _____

(Analysis)

- (iv) Annual range of temperature in Lucknow is high. Choose which of the following reasons explain this phenomenon. [1]

(Evaluate)

- (P) Experiences high temperature throughout the year
- (Q) Far from the sea
- (R) Experiences extremes of temperature
- (S) High altitude

- (a) Only P and Q
- (b) Only Q and R
- (c) Only Q and S
- (d) Only R and S

SECTION B – 28 MARKS

Question 3

- (i) Indian Ocean is truly Indian. Explain this statement giving *two* reasons. [2]
(Understanding)
- (ii) There are great contrasts observed between the Himalayan and Peninsular rivers of India. How do these differences impact human settlements? [2]
(Analysis)

Question 4

- (i) Imagine you are cycling from Mumbai to Vishakhapatnam in the month of June. You will cross at least three main physical features of India. Draw a cross section or a schematic diagram to depict *any two* features. [2]
(Application)
- (ii) Identify the image given below and explain the formation of this geological division in India. [2]
(Understanding)



(Source: www.flickr.com)

Question 5

- (i) Monuwara Begum's family house is submerged with floodwaters in Sandahkhaiti, a floating island village in the Brahmaputra River in Assam, India. [2]
(Source edited - <https://apnews.com/article/river-islands-climate-change-brahmaputra-india-char-islands-62ec340d8832071f0b8424689105542d>)
What do you think could be the cause of floods in this region other than heavy rain? Suggest *any one* measure that can be undertaken to prevent such unfortunate situation in future. (Evaluate)

- (ii) India's Southwest Monsoon ended on September 30, 2023 with below normal rainfall. The country recorded a cumulative rainfall deficiency of 5.6% and over 200 districts facing deficient rainfall. [2]

(Source[edited]: <http://timesofindia.indiatimes.com/article>)

Explain the phenomena that could have been the reason for this deficit of rain in India. (Understanding)

OR

- (i) On January 17, 2023, the international news media agency Reuters reported that adverse weather has hit the Indian cane crop which will reduce the total sugar output this year. The news report mentioned excessive rainfall and cloudy weather in September and October as a reason for the expected drop in sugar output. [2]

Based on this information, examine how such a climatic condition can adversely affect the sugarcane crop. (Analysis)

- (ii) Tamil Nadu receives heavy rainfall during December - January when major areas of India experience dry conditions. [2]

Discuss the reasons for the difference in the weather conditions of the regions mentioned above. (Understanding)

Question 6

Observe the image below and answer the questions that follow.



- (i) State *two* possible reasons for this type of movement. (Understanding) [2]

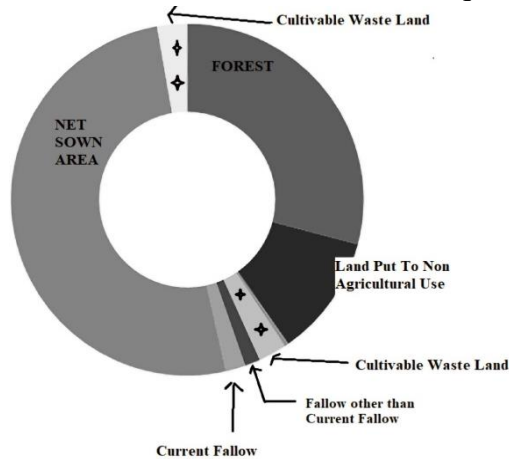
- (ii) The city of Delhi has spread and coalesced with neighbouring towns like Gurugram and Noida. Cite the possible reasons responsible for this development. [2]

(Understanding)

Question 7

[4]

Study the land use patterns shown below and answer the question that follows.



Which *two* land use patterns show a larger area of land cover? How are they important in a country like India? **(Analysis)**

Question 8

(i) Answer the following.

- (a) Provide *two* differences between rural settlements of the Himalayas and the Coastal Plains of India on the basis of type and pattern of settlement. [2] **(Understanding)**
- (b) Outline *any one* advantage and *any one* disadvantage of an urban centre where one mode of transport paves the way to another mode of transport. [2] **(Understanding)**

OR

(ii) Answer the following.

- (a) State the difference between *compact* and *dispersed* settlements on the basis of their location and morphology. [2] **(Understanding)**
- (b) State *one* advantage and *one* disadvantage of urban sprawl. [2] **(Understanding)**

Question 9

(i)



(Source: <https://www.bhaskar.com>)

- (a) State *any two* conditions that are favourable for generation of power from the energy source shown above. [2]
(Understanding)
- (b) Briefly discuss the significance of this energy source in ensuring sustainable development. [2]
(Understanding)

OR

(ii)



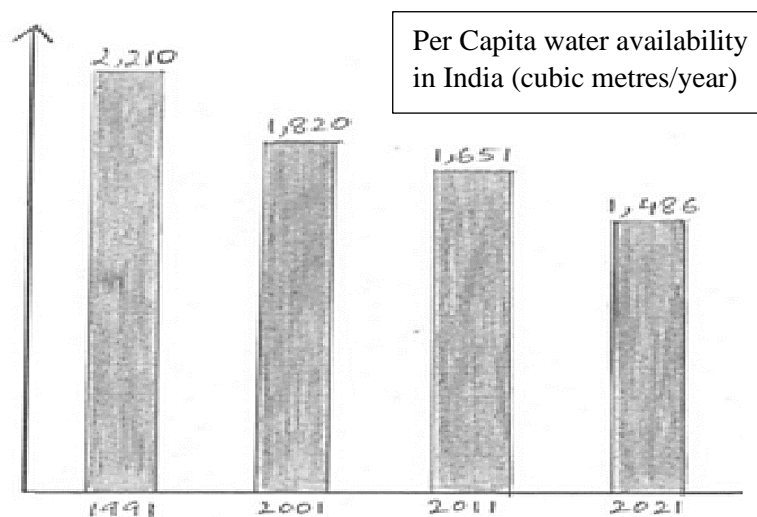
(Source: <https://theindonesian.id>)

- (a) The image given above shows a fossil fuel that has versatile uses. Mention *any two* of its uses. [2]
(Understanding)
- (b) State *any two* disadvantages of this fossil fuel. [2]
(Understanding)

SECTION C – 28 MARKS

Question 10

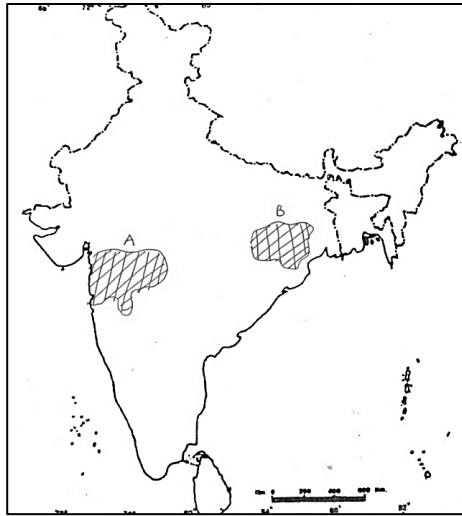
Study the graph on water availability and answer the questions that follow.



- (i) Mention *three* probable reasons responsible for the change in availability as shown above. [3]
(Understanding)
- (ii) Suggest *four* ways to improve the average availability of water per person in India. [4]
(Application)

Question 11

- (i) Refer to the sketch map given below which shows two industrial regions of India marked A and B.



- (a) Explain *any four* factors responsible for the growth of the industry in region A. **(Understanding)** [4]
- (b) Explain *any three* factors that influenced the growth of industrial region marked B. **(Understanding)** [3]

OR

- (ii) Between January and December, 2023, 9.5 million international tourists arrived in India. During the same period, In Thailand, 28.15 million international tourists arrived in the country.

(Edited Source: <http://thehindustanbusinessonline.com>)

- (a) Elucidate *four* reasons for low international tourist arrivals in India during the given period. **(Understanding)** [4]
- (b) Explain *three* advantages of eco-tourism. **(Understanding)** [3]

Question 12

Observe the image given below and answer the questions that follow.



(Source: <https://www.sussex.ac.uk>)

- (i) Explore the problems related to the situation depicted in the image. [4]
(Understanding)
- (ii) How can people's participation be effective in conserving forests? [3]
(Evaluate)

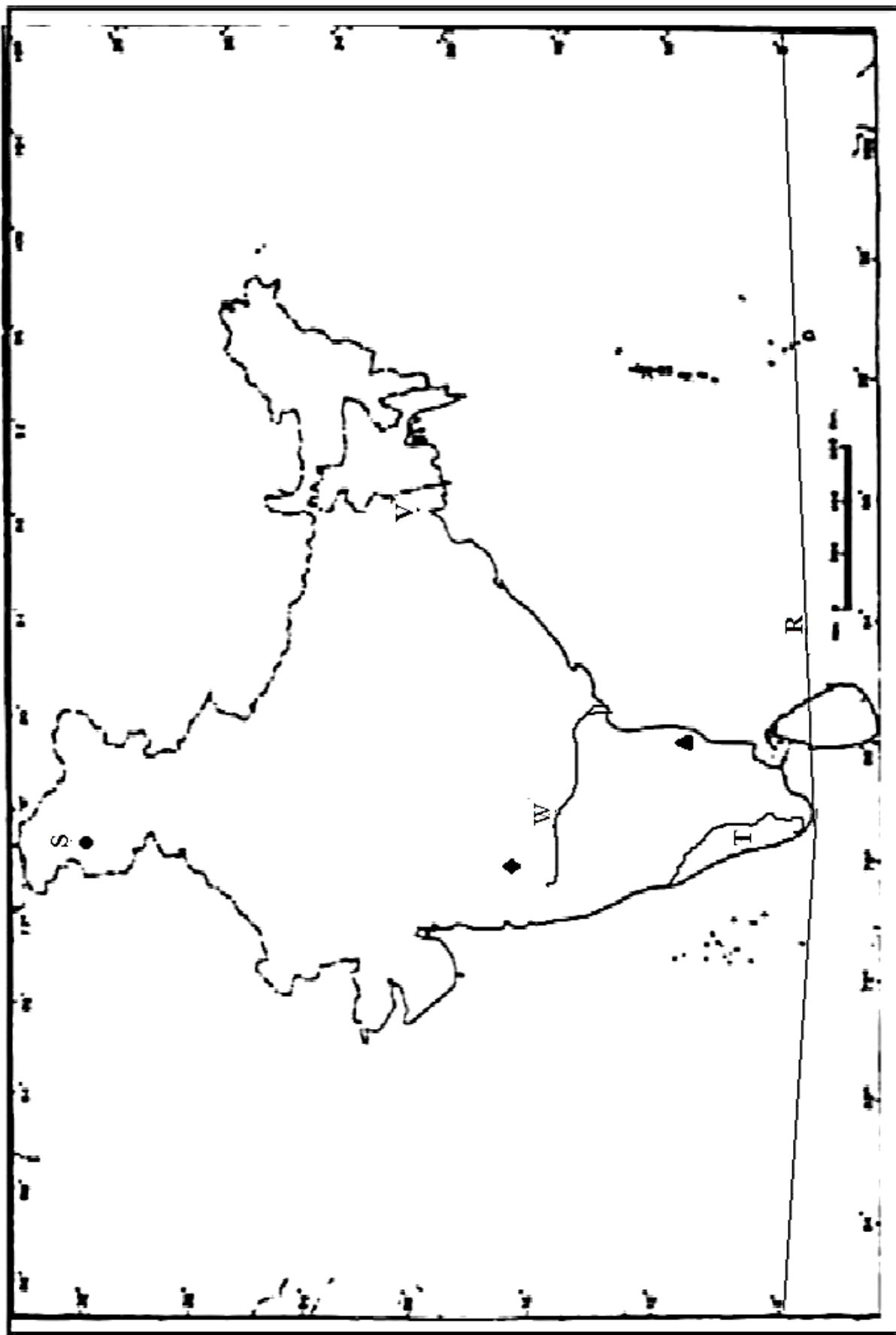
Question 13

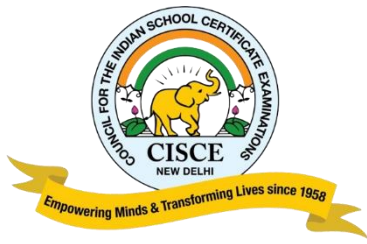
Read the passage given below and answer the questions that follow.

In the vast and diverse expanse that is India, the importance of a well-developed highway network cannot be overstated. India's geographical diversity, with its contrasting landscapes ranging from the towering Himalayan peaks in the north to the lush plains in the south, presents unique transportation challenges. Furthermore, India's burgeoning population and the rapid urbanisation of its cities have led to increased mobility demands, both for the movement of people and goods. In this context, the Golden Quadrilateral emerges as a monumental feat of engineering and planning.

(Source: <https://timesproperty.com/news/post/all-about-golden-quadrilateral>, 11 October, 2023)

- (i) What is the Golden Quadrilateral Project? Discuss *three* economic benefits of this project. [4]
(Understanding)
- (ii) Do you think this mode of transport is the best means for India's infrastructural development? Justify. [3]
(Evaluate)





GEOGRAPHY

ANSWER KEY

SECTION A – 14 MARKS

Question 1

A.

- (i) (a) Karakoram [1]
(b) Kanara [1]
(c) Chilika [1]
- (ii) (a) Srinagar [1]
(b) R. Krishna [1]
(c) Kerala [1]

(B) In answering Multiple Choice Questions, candidates have to write either the correct option number or the explanation against it. Please note that only ONE correct answer should be written.

- (i) (c) 8°4'N [1]
(ii) (d) Kolkata [1]
(iii) (a) Kalpakkam [1]
(iv) (a) Ahmednagar [1]

Question 2

In answering Multiple Choice Questions, candidates have to write either the correct option number or the explanation against it. Please note that only ONE correct answer should be written.

- (i) (a) Both Assertion and Reason are true and Reason is the correct explanation for Assertion. [1]
(ii) (c) Assertion is true and Reason is false. [1]
(iii) Urban Sprawl [1]
(iv) (b) Only Q and R [1]

SECTION B – 28 MARKS

Question 3

- (i)
 - India lies at the head of Indian ocean commanding trade routes running in all directions. [2]
 - Its long coastline with maximum number of ports leads to well-developed trading activities.
 - Indian ports serve as entrepots for countries on the west and east of Indian ocean.
 - The western and eastern hemisphere is connected through the Indian Ocean.
 - No other country has such a long coastline on this ocean as India.

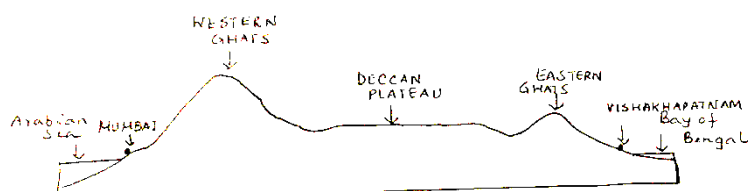
(Candidates have to write two reasons which explain the significance of Indian Ocean in Indian location.)

- (ii) Himalayan rivers are perennial in nature which allows agriculture and dense settlement to take place. While peninsular rivers are seasonal in nature and unsuitable for agriculture leading to moderate settlement. [2]

(Candidates are expected to write the ways in which settlements are influenced by the presence of the above-named rivers based on their nature of flow.)

Question 4

- (i) [2]



(Candidates must draw the diagram and label any two features lying between Mumbai and Vishakhapatnam.)

- (ii) This image depicts a Plateau. [2]
During the Pre Cambrian era, there was a large depression in which sediment were deposited and a block of crystal rocks came out of this depression. It behaved like rigid inflexible block throughout the geological history to form the Peninsular Plateau of India.

(Candidates are required to relate to the Peninsular Plateau and accordingly write the answer.)

Question 5

- (i) Possible cause of floods [2]
- Large amount of silt deposited by river Brahmaputra and its tributaries which make the river channel shallow and its capacity to carry large amounts of water get reduced.
 - Earthquakes occurring at frequent intervals may change the river course and obstruct the flow of water.
 - Huge rock falling from a landslide acts as a temporary dam leading to submergence of vast areas under water.
 - Change in the course of the river as it flows from the Himalayas.

Measure to prevent floods

- Building of dams/embankments
- Interlinking of rivers to prevent flooding of the regions.
- Tree plantation on a massive scale to control flow of excess water.

(Candidates are required to interpret a cause of heavy rainfall in this region. They have to suggest any one remedial measure to prevent the situation of flooding in the region.)

- (ii) The phenomenon is the occurrence of El Nino which is a narrow warm ocean current appearing off the west of Peru in South America and is a temporary replacement of the cold Peruvian current. It increases the surface water temperatures by almost 10⁰C and this warming of tropical waters of the Pacific affects the global patterns of pressure and wind systems including the monsoon rains in Indian subcontinent which leads to rainfall deficit in India. [2]

(Candidates are expected to explain the role of El Nino and its impact on the Southwest Monsoons in the Indian region.)

OR

- (i) Due to tropical cyclones which lead to heavy rainfall, waterlogging takes place leading to diluted sucrose in the cane and damaging of sugarcane crop. [2]
- (ii) In most of the Indian regions during December – January, there is extreme low temperature with high pressure resulting in cold and dry conditions. On the contrary, Tamil Nadu with high temperature and low pressure attracts the north east monsoon winds from the Bay of Bengal that bring in rainfall. [2]

(Candidates are required to write about the north east monsoons and impact over the Eastern coast to explain the difference in the weather conditions of Tamil Nadu and the rest of India during the winter season.)

Question 6

(i) Reasons for urban to rural migration [2]

- Over-congestion of cities
- Haphazard growth
- High cost of living
- Heavy pressure on utility services
- Unemployment
- Matrimonial alliance mostly for female population

(Candidates have to write two reasons, in complete sentences and not phrases, responsible for the type of migration shown in the question.)

(ii) The reasons for urban conurbation can be put under three broad categories. [2]

- Infrastructural advancement
 - Development of transport facilities
 - Growth of industries
 - Increase in the number of educational institutions
- Increase in population leading to space crunch which amounts to spread of urban areas in the sub urban regions resulting in urban conurbation.
- Political reasons

(Candidates must briefly write on physical, economic and political factors responsible for this type of settlement.)

Question 7

[4]

Net Sown Area

It meets the food requirement of people in India. Since, the population has been increasing exponentially, it helps in addressing the food requirement of the populace.

Forest Area

This area ensures the ecological balance. It is designated for the development of a habitat for wild life. It also addresses the needs of the tribal groups residing in the forest.

(Candidates have to identify the two landuse patterns and then write their significance in a country like India.)

Question 8

(i) (a) [2]

Basis	Rural Settlements in Himalayas	Rural Settlements in Coastal Plains
Pattern	There is isolated settlement or houses, far away from each other in valleys or hills slopes.	These settlements are mostly along the coast and dense.
Shape	Settlements are star shaped or shapeless.	Settlements are linear shaped.

(Candidates must write the differences in tabular form only on the basis given in the question.)

- (b) Advantage [2]
- It acts as a boost to business and commercial activities.
 - It accelerates growth of urban centres.

Disadvantage

- Transshipment requires a lot of labour especially when heavy goods are transferred from one vehicle to another.
- Commercial warehouses, banks, insurance companies are required which entails high cost.

(Candidates are required to write one advantage and one disadvantage of a centre where Break in transport takes place.)

OR

- (ii) (a) [2]

Basis	Compact Settlements	Dispersed Settlements
Location	Found mainly near fertile river valleys	Found in mountains, forested areas and deserts and semi deserts
Morphology	Houses are located adjacent to each other and form a compact block. They are comparatively smaller in size and provide less living space.	Houses are located at a distance from each other. They are comparatively bigger and provide more living space.

(Candidates have to differentiate on the parameters given in the question. The differences must be written in a tabular form.)

- (b) Urban Sprawl [2]

Advantage - It leads to growth of urban centres and urbanisation / facilitates the economic growth.

Disadvantage - Rich agricultural areas are lost to settlement areas.

(Candidates are required to write one advantage and one disadvantage in complete sentences.)

Question 9

- (i) (a) Conditions for generation of Hydel power: [2]
- Perennial / constant flow of water
 - Large volume of water
 - Water falling from a great height

- (b) Significance [2]

- Environment friendly/pollution free
- Renewable source of energy
- Cheaper in long run
- Allows utilisation of a natural resource hitherto going waste by storage.

(Candidates are required to discuss the significance of this source on the basis given above.)

OR

- (ii) (a) Uses of coal [2]
- It is used as fuel to supply heat or light.
 - It is the mainstay of power generation.
 - It is used as raw material for manufacturing of iron and steel.
- (Candidates are required to first correctly identify the fossil fuel and then mention any two of its uses.)*
- (b) Disadvantages [2]
- It causes high pollution in air and soil/carbon dioxide emission.
 - It is non-renewable/non replenishable.
 - It is expensive.
 - It's use leads to global warming.
- (Candidates are required to first correctly identify the fossil fuel and then write any two of its disadvantages, in complete sentences and not phrases.)*

SECTION C – 28 MARKS

Question 10

- (i) Three reasons [3]
- Shortage of water supply / reduction of water table
 - Misuse of water or wastage of water
 - Water based pollution
 - Change in rainfall pattern
- (Candidates have to study the graph carefully and then write three possible reasons for the change.)*
- (ii) Measures [4]
- A reservoir should be created to store water.
 - Rainwater harvesting systems should be created to tap wastage or flow of surface/ground water.
 - Waste water should be recycled.
 - Disposal of the waste in water should be stopped / limited.
 - Proper water management with efficient irrigation systems should be put in place.
- (Candidates have to suggest four measures that can practically improve the availability of water.)*

Question 11

- (i) (a) Factors responsible for its growth [4]
- Availability of raw cotton or raw sugarcane
 - Readily available market
 - Means of hydel power resources
 - Inexpensive transport
 - Plentiful supply of cheap and skilled labour
 - Favourable climate for spinning of cotton yarn
 - Availability of water for industrial processes
 - Facility of capital with banking and insurance

- Modern machinery is imported for cotton textile/sugar processing.
- (Candidates have to briefly relate any four factors responsible for the growth of either cotton or sugar industry.)*

(b) Factors [3]

- Discovery of coal as means of power resources
- Growth of mineral based industries iron and steel,
- Growth of Jute and Cotton textile industries.
- Ready market and port facility at Kolkata.
- Availability of mineral resources
- Well -connected transport facility
- Availability of water

(Candidates are required to briefly explain the specific factors of industrial growth of the region asked in the question. They should not just mention the general factors.)

OR

(ii) (a) Reasons for low international tourist arrivals [4]

- Lack of proper Infrastructure and facilities for international tourists acts as a discouraging factor.
- Many tourist areas are inaccessible for foreign tourists.
- Low marketing and advertisement of the famous sites and tourist friendly places.
- Security of the tourist poses a major challenge.
- Unhygienic conditions lead to health hazards.
- Complexity and difficulty in Visa processing also demotivates the tourists.
- Congested roads and living spaces make it appear difficult for them to adjust to the life style in India.

(Candidates must mention the reasons for low tourist flows in India.)

(b) Advantages of Eco tourism- [3]

- It contributes to environmental conservation.
- It creates job opportunities.
- It conserves natural resources.
- It boosts the economy of the country.
- It encourages understanding between cultures.
- It supports local communities.

(Candidates are expected to explain any three advantages and not just mention in points.)

Question 12

(i) Problems of deforestation [4]

- It leads to an increase in soil erosion.
- It also causes meteorological changes which can result in drought or floods with change in pattern of rainfall.
- It increase in greenhouse gases leading to increase in temperature
- Increase in pollution and related health issues
- Wildlife extinction/loss of wildlife habitat with large scale deforestation
- Lack of forest manure affects agriculture

(Candidates are required to first correctly identify the situation given in the question and then reflect on the problems that it leads to.)

(ii) People's participation will help in [3]

- Planting of trees through afforestation and reafforestation
- Maintain green belts and parks in urban areas
- They can help not only restore forests but also save them from being cut.
- Social programmes to make others aware about the significance of trees
- Conserve forest land and also grow crops through agro-forestry

(Candidates should be able to explain each point to clearly state the role of people in forest conservation methods.)

OR

(i) Inputs of green revolution [4]

- Use of HYV seeds
- Use of fertilisers
- Developing means of irrigation
- Farm mechanization
- Consolidation of farms

(Candidates have to discuss those four factors that have brought the transition in Indian agriculture.)

(ii) Crop rotation is growing of leguminous crops in rotation with cereal crops. [3]

Significance:

- It keeps the land in good tilth to use the land resources more efficiently.
- It uses water judiciously in dry conditions.
- It adds to the diversification of crops.
- It adds to the extra income of the farmer.

(Candidates have to write three reasons to substantiate the importance of crop rotation.)

Question 13

- (i) Delhi-Mumbai-Chennai-Kolkata-Delhi [4]
Three economic advantages are-
- It helps reduce distances between port cities and hinterland.
 - It helps in industrial growth.
 - It helps in agricultural growth.
 - It provides job opportunities.

(Candidates have to specify the metropolitan cities that constitute the Golden Quadrilateral. They have to discuss its three economic benefits.)

- (ii) No, it cannot be considered as the best means of transport. [3]
Reasons

- Highly undulating terrain
- Presence of swift streams and thick forests
- Landslide and earthquake prone area.
- Heavy rainfall in north-eastern states during monsoon
- Non-availability of road construction materials

(Candidates have to give their opinion on the effectiveness of Golden Quadrilateral as a means of transport. They have to validate their opinion with the help of three arguments.)

