GEOGRAPHY

(H.C.G. PAPER – 2)

Maximum Marks: 80

Time allowed: Two hours

1. *Answers to this paper must be written on the answer sheet provided separately.*

2. *You will **not** be allowed to write during the first 15 minutes.*

3. *This time is to be spent in reading the question paper.*

4. ***The time given at the head of this Paper is the time allowed for writing the answers.***

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

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

7. *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. G43S7 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 of Survey of India Map, Sheet No. G43S7 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.*

Instruction for the Supervising Examiner

Kindly read aloud the Instructions given above to all the candidates present in the Examination Hall.

This paper consists of 14 printed pages and 1 outline map of India.

Turn Over

PART I (30 Marks)

(Attempt all questions from this Part.)

Question 1

Study the extract of the **Survey of India** Map Sheet No. **G43S7** and answer the following questions:

(i)   (a)   What is the *social significance* of the temple that is found at the **six-figure** grid reference **362001**?   [2]

        (b)   What is the reason for very few settlements in the *southeastern quarter* of the map extract?

(ii)   (a)   What is **.3r** in grid square **3501**?   [2]

        (b)   Identify one *relief feature* found in the grid square **3796**.

(iii)   (a)   The area shown on the map extract has seasonal streams, but in **3903** a large perennial water source can be seen. What may be the reason for the presence of this large perennial source of water?   [2]

        (b)   Which other source of water seen on the map extract is perennial?

(iv)   (a)   While travelling for work from **Dhaneri** (3100) to **Marwada** (3197) along the metalled road, Sahil crossed over a number of **'causeways'**. Why are causeways present in the area shown on the map extract?   [2]

        (b)   Identify the *drainage pattern* seen in the grid square **3697**.

(v)   (a)   What is the *difference in altitude* between the **highest point** on the map extract and the **contour** height in grid square **3203**?   [2]

        (b)   What is the *black horizontal line* made between 98 and 99 northings called?

Question 2

On the outline map of India provided:

(i)   Mark and name an *old fold mountain* range of India.   [1]

(ii)   Mark with an arrow and name the *river* also known as the *'Sorrow of Bihar'*.   [1]

(iii)   Shade and label the *Gulf of Kutch*.   [1]

(iv)   Mark and label the *Karakoram Pass*.   [1]

(v)   Mark and label an *offshore oil field* of India.   [1]

(vi)   Shade and label the *Laterite soil* area in the *northeastern part* of India.   [1]

(vii)   Mark and name the *shared capital city of Punjab and Haryana*.   [1]

(viii) Mark and label the *Western Ghats*.   [1]

(ix)   Shade and label the *river Krishna*.   [1]

(x)   Shade and label an area of *dense population*.   [1]

Question 3

Choose the correct answers to the questions from the given options.   [10]

(Do not copy the questions, write the correct answers only.)

(i)   Mawsynram, the rainiest place in the world, gets the rain from:

    (a)   South-west monsoon wind - Arabian Sea branch

    (b)   South-west monsoon wind - Bay of Bengal branch

    (c)   Western Disturbance

    (d)   North-east monsoon wind

(ii)   Choose the characteristic that is true about *Laterite soil.*

(a) It is a clayey soil.

(b) It is moisture retentive.

(c) It is rich in calcium.

(d) It undergoes desilication.

(iii)   Identify the option which is most similar to:

Tropical Evergreen vegetation : Tall trees and hardwood

(a) Tropical Deciduous vegetation : Pure stands

(b) Tropical Desert vegetation : Small leaves and spines

(c) Coniferous forests : Mountain

(d) Littoral vegetation : Boat making

(iv)   **Assertion (A):** Irrigation is practised in large parts of India.

Reason (R):   India has a variety of soil types.

(a) (A) is true and (R) is false.

(b) (A) is false and (R) is true.

(c) Both (A) and (R) are true and (R) is the correct explanation of (A).

(d) Both (A) and (R) are true but (R) is not the correct explanation of (A).

(v)   Identify the type of coal that has the *highest calorific value.*

(a) Peat

(b) Lignite

(c) Bituminous

(d) Anthracite

(vi)   The *residue* of _____ forms an important part of the *cattle feed* and *manure*.

(a)   groundnut

(b)   coffee

(c)   jute

(d)   pulses

(vii)   Identify the crop that is grown in the Rabi cropping season.

(a)   Sugarcane

(b)   Rice

(c)   Mustard

(d)   Cotton

(viii)   Which industry is ideally located close to the raw material producing area?

(a)   Silk industry

(b)   Jute industry

(c)   Cotton textile industry

(d)   Sugar industry

(ix)   Which of the following is **NOT** suitable for composting?

(a)   Fruit peels

(b)   Egg shells

(c)   Neem soap

(d)   Used tea leaves

(x)   The picture given below depicts the use of waterway as a means of transport.

Identify the pair of cities which are most likely to be the terminal cities for the waterway shown in the above picture:

(a)   Prayagraj and Haldia

(b)   Mumbai and Goa

(c)   Chennai and Vishakhapatnam
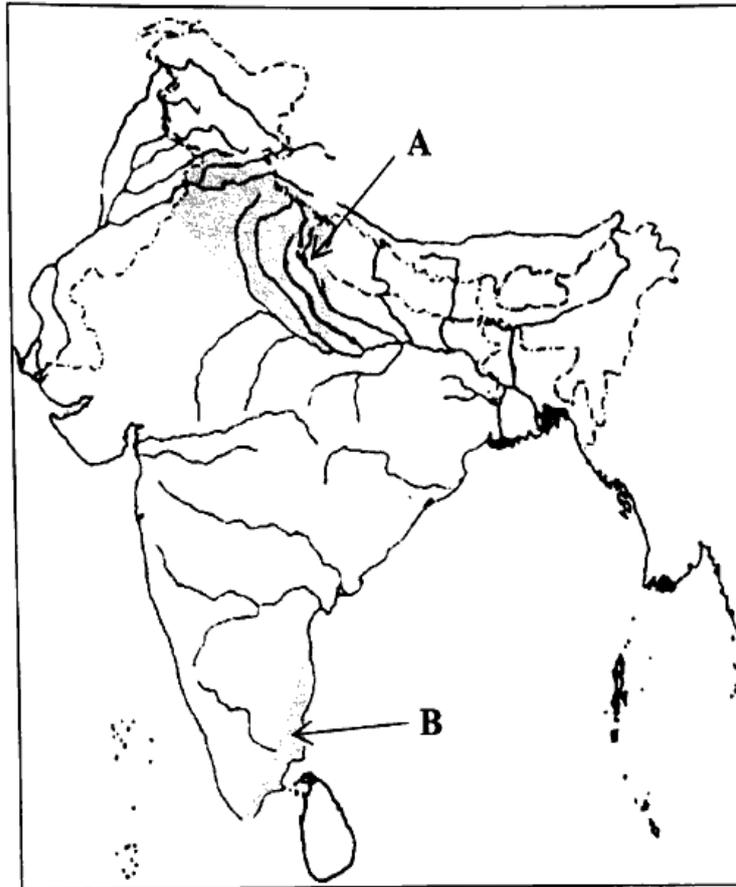
(d)   Kochi and Mangaluru

PART II (50 Marks)

*(Attempt **any five** questions from this **Part**.)*

Question 4

(i)   (a)   Name a state in India which is the first to receive the summer monsoon   [2]
                and is also the last to see its retreat.

        (b)   Mention the *weather conditions* experienced during the *retreating monsoon season.*

(ii)   Study the map showing the area that receives rains *during winter* and answer   [2]
          the questions that follow:

(a)   Name the *wind* which brings rainfall to:

1.   the *shaded area* labelled **A**.

2.   the *shaded area* labelled **B**.

(b)   How is the rain brought by the winds named by you in (a) above,
          beneficial for the area shaded **A** and the area shaded **B**?

(iii)   Shyam attended **winter** trekking camps in both **Nainital** and in **Ooty**. He   [3]
          observed that the mountains in **Nainital** were ice-covered, whereas, in **Ooty**
          they were ice-free.

(a)   As a student of Geography, explain the reason for the difference in
          climate of Nainital and Ooty?

(b)   If Shyam goes to Kochi in the same season, what difference of climate
          will he experience?

(iv)   Study the climate data of station **X** and answer the following questions: [3]
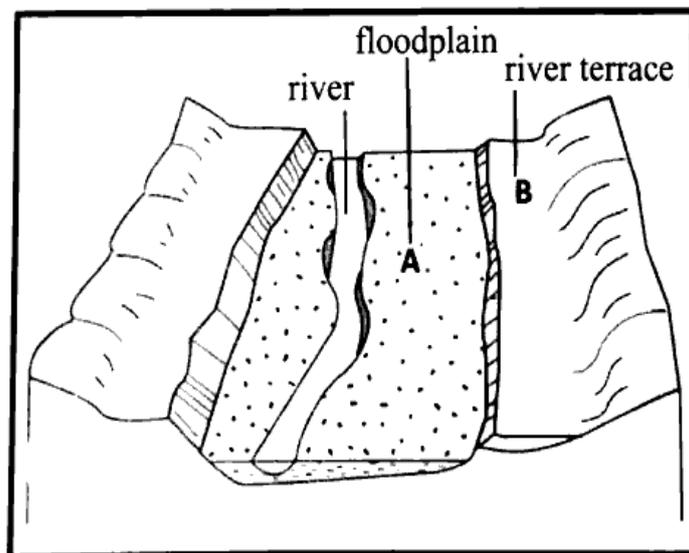
Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Temperature (°C)	13.5	16.8	22.4	33.6	38.6	30.2	29.3	28.4	27.8	25.7	19.9	15.5
Rainfall (cm)	1.3	–	–	5.9	12.4	43.9	51.4	39.8	20.9	15.1	2.6	2.1

(a) Why is there a decrease in temperature in the month of June after the high temperature of May?

(b) Calculate the **total rainfall** of the station during the **rainy season** and give your answer in cm.

(c) Is station **X** located near the sea or away from the sea? Give a reason for your answer.

Question 5

(i)   Observe the picture of ex-situ soil given below and answer the questions   [2]
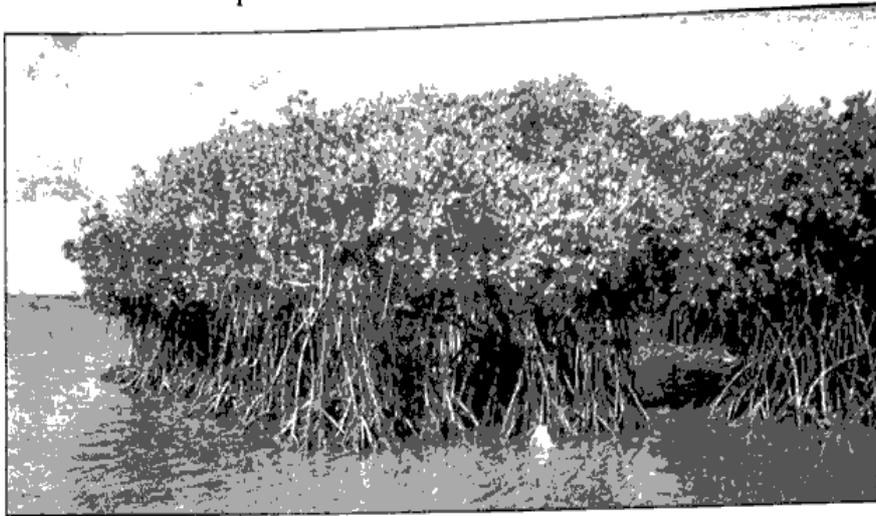that follow:

(a) Identify the types of soil marked as **A** and **B**.

(b) Which of the two, **A** or **B**, is more fertile and why?

(ii) (a) Name the *soil component* derived from the *decay of dead plants and* [2]
animals.

(b) Why is the component mentioned by you in (a) important for
agriculture?

(iii) Give a geographical reason to explain each of the following: [3]

(a) In *arid regions*, trees are planted in rows *perpendicular to wind*
direction.

(b) *Black soil* does not get *leached.*

(c) It is difficult to grow *rice* in *red soil* without the help of *irrigation.*

(iv) (a) What is soil conservation? [3]

(b) Name two areas in north India where soil conservation is required.

(c) Name *two* methods of soil conservation practised in India.

Question 6

(i) Why are *forests important* for the Indian *economy*? [2]

(ii) Identify the forest conservation methods described below: [2]

(a) A sustainable system of managing a piece of land through combined
production of agricultural crops, forest crops and animal rearing.

(b) Planting of trees along the side of roads, railway lines and on hill
slopes.

(iii) Given below is an image of the forest found in marshy areas. **Refer to the** [3] image and answer the questions that follow:

(a) Name the *type of vegetation* seen in the above image.

(b) Mention one *adaptive feature* of the trees of this vegetation.

(c) Name a *region* where this type of vegetation is commonly found in India.

(iv) Give *one geographical reason* to explain each of the following: [3]

(a) *Desert vegetation* has *long roots*.

(b) At *higher altitudes*, trees are often *conical in shape*.

(c) *Tropical Monsoon Forests* are also called *'Tropical Deciduous Forests'.*

Question 7

(i) Raghu wants to irrigate his *large field* in a manner that will *ensure uniform* [2] *water distribution* across the field along with *water conservation*.

(a) Name the *irrigation method* that will be suitable as per his need.

(b) How will the method of irrigation mentioned by you in (a) above help to *conserve water*?

(ii)   What is the difference between *Inundation canals and Perennial canals?*   [2]

(iii)   *Considering the rapid depletion of groundwater and its implications for*   [3]
         food and water security in India, sustainable management of groundwater
         resources is needed.

                         Source: [Journal of Hydrology, Volume 596, May 2021]

         (a) How is *'groundwater'* different from *'surface water'?*

         (b) Why is the groundwater level *rapidly declining* in India?

         (c) Name *one conservation measure* that will help in *recharging of the*
              groundwater.

(iv)   Give a reason for each of the following: [3]

         (a) *Wells* are a common means of irrigation in *Northern India.*

         (b) Many state governments have *restricted* the use of *tubewells.*

         (c) Tank irrigation is a popular method of irrigation used in Karnataka.

Question 8

(i)   State **two** advantages that *Natural gas* has over *Coal.*   [2]

(ii)   (a) Umesh and Sagar are employed in *iron ore mines* in two different   [2]
              districts of **Odisha**. What are their possible places of work?

         (b) State *any two* uses of *copper.*

(iii)   (a) The *Bhakra Nangal* project is a joint venture of which *state*   [3]
              governments?

         (b) Name the *river* on which this project is based.

         (c) Mention *two benefits* of the Bhakra Nangal project.

(iv)   Give **one word** for each of the following: [3]

     (a)   The *renewable* energy produced by the natural rise and fall of ocean waters.

     (b)   An ore of aluminium.

     (c)   A mineral that is used to make steel strong and resistant to rusting.

Question 9

(i)   Differentiate between *subsistence farming* and *commercial farming*.   [2]

(ii)   (a)   Name a *state* that leads in the production *of jute*.   [2]

     (b)   Mention a *geographical factor* that is responsible for the state mentioned in (a) above being the leading producer of jute.

(iii)   (a)   Why are Silver Oak trees and Cardamom trees planted in coffee plantations along with the *coffee plants?*   [3]

     (b)   State *two climatic conditions* that favour the *cultivation of coffee.*

(iv)   (a)   Name the *cropping season* in which Bajra is grown.   [3]

     (b)   Why is *wheat* **not** cultivated extensively in *West Bengal* and the extreme southern states of India?

     (c)   Why is the cultivation of *soyabean* gaining popularity in recent times?

Question 10

(i)   'Not all areas of India are suitable for establishing a *large-scale industry.*' Give **two** reasons for the above statement.   [2]

(ii)   'The contribution of the *electronics industry* is crucial for the progress and development of the Indian economy.' State **two** arguments *in favour* of this statement.   [2]

(iii)   Give **one** geographical reason to explain each of the following: [3]

     (a)   Work in *sugar mills* is a *seasonal* activity.

     (b)   The *cotton textile* industry is *widely distributed* in India.

     (c)   *Vishakhapatnam* steel plant has a *unique locational advantage* that enables it to procure raw materials easily and market the finished products with ease.

(iv)   (a)   Name the *oldest iron and steel industry* of India.   [3]

     (b)   Where is it located?

     (c)   Name *a centre from* where it gets its *coal* supply.

Question 11

(i)   *Inland water transport* is more popular in *Northern India* as compared to *Peninsular India*. Give two reasons.   [2]

(ii)   What is the *purpose of developing* the **Golden Quadrilateral in India**?   [2]

(iii)   Mr. Kumar stays in Delhi with his family. Members of his family had to travel on Monday for different purposes. State the mode of transport that is most likely to be chosen by each: [3]

     (a)   Mr. Kumar's father wanted to travel comfortably to Patna to stay with his brother for a week.

     (b)   Mr. Kumar's son had to attend a meeting in Ahmedabad that very evening.

     (c)   Mr. Kumar's daughter had to meet her friend who lives in the same city, taking with her some fresh vegetables grown in their kitchen garden.

(iv) Give *one geographical reason* to explain each of the following: [3]

(a) The presence of a number of *ports* has strengthened the transport sector of India.

(b) The number of *airports* in the country is *on the rise.*

(c) *Railways* are considered ideal for transportation of *bulky goods* over *long distances.*

Question 12

(i) What impact does *waste accumulation* have on our *environment?* [2]

(ii) Study the picture given below and answer the questions that follow: [2]

(a) Name the *waste management practice* shown in the given picture.

(b) State *two benefits* of this *waste management practice.*

(iii) Udit wants his younger sister to bring about a few *lifestyle changes* to help her *contribute towards a cleaner and healthier environment.* Suggest **three** advice that Udit may provide her in this regard. [3]

(iv) Give a *reason* for each of the following: [3]

(a) Waste should be *segregated* before disposal.

(b) *Dumping* could be harmful for the environment.

(c) *Radioactive waste* is the most harmful waste.