



ST. JOSEPH'S COLLEGE, PRAYAGRAJ

HALF YEARLY EXAMINATION 2024

GEOGRAPHY

CLASS – X

TIME: 2 Hours

MM: 80

Attempt all questions from Part I (Compulsory)

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

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

PART I [30 Marks]

(Attempt all Questions from this part)

Q 1) Study the extract of the Survey of India Map Sheet No. G43S7 and answer the following questions. [Eastings 22-32, Northings 02-12]:

1. a) Give the four-figure grid reference of the Police Station. [2]
b) Give the six-figure grid reference of Lime Kiln.
2. What is meant by the term R.F.? What is R.F. of the given map extract? [2]
3. a) What is the Compass Direction of the Santawada from Ganodara? [2]
b) Give a reason for availability of water in parts of Sipu River even when other streams are dry.
4. a) Calculate the area of the entire Map extract. [2]
b) Raman goes on a bicycle from 22 Eastings to 32 Eastings in a straight line. If he moves at a speed of 10 kilometers per hour, how much time will he take to reach his destination?
5. a) Mention one man made and one natural features in the grid square 2509. [2]
b) How is the drainage pattern in grid square 2806 different from that in grid square 2505?

Q 2) On the outline map of India provided mark and label the following:

[10x1=10]

1. Western Ghats
2. The meridian from which IST is taken.
3. Mark and label with arrows winds which bring rain to Kerala in June.
4. Largest salt water lagoon in India.
5. Oldest oilfield in India.
6. River Mahanadi.
7. Fertile plains lying south of the Himalayas.
8. Mark and label a region where soil suitable for cotton cultivation is found.
9. Coastal plains which receive rain from retreating south-west monsoons.
10. Satpura mountains.

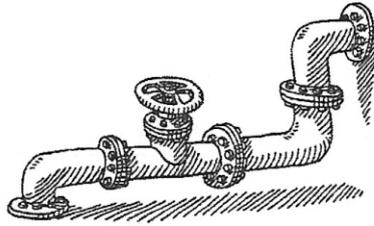
Q 3) Choose the correct answers to the questions from the options given;

[10x1=10]

1. Which of the following does not have an influence over the climate in India?
 - a) Monsoons
 - b) Ocean currents
 - c) Nearness to equator
 - d) Presence of Indian ocean.
2. This process is defined as the removal of soluble salts, especially the bases & silica from horizon A or the top soil by percolating rain water. Which process is this?
 - a). Pedogenesis
 - b) Leaching
 - c) Lithification.
 - d) Conglomeration
3. The Sundri tree is considered good for the building of boats _____
 - a) As it is easily available
 - b) As it is water resistant, strong and durable.
 - c) As it has waxy coating
 - d) As the trees are tall.
4. This mode of irrigation can be used to irrigate extremely large area in various regions single handedly.
 - a) Sprinkler
 - b) Drip
 - c) Well
 - d) Canal.
5. The first railway line was constructed from _____
 - a) Mumbai to Thane
 - b) Mumbai to Pune
 - c) Mumbai to Delhi
 - d) Mumbai to Sura

6. The transportation of which mineral is done by the method shown below:

- a) Coal
- b) Mineral oil
- c) Bauxite
- d) Manganese.



7. Discoloration of the Taj Mahal is caused due to _____

- a) Fog experienced in winters
- b) Excessive inflow of Tourists
- c) Acid rain
- d) Vehicular emissions.

8. **Assertion (A):** The Peninsular region does not have a well-defined cold season.

Reason (R): Temperature pattern of the region remains more or less the same due to moderating influence of the sea.

- a) Both Assertion and Reason are correct, and Reason is the correct explanation of Assertion.
- b) Both Assertion and Reason are correct, but Reason is not the correct explanation of Assertion.
- c) Assertion is correct but Reason is wrong
- d) Both Assertion and Reason are incorrect

9. Problem of solid waste disposal can be reduced through _____.

- a) Population control
- b) Recycling
- c) More Timber
- d) Lesser pollution.

10. The _____ port was established to release the congestion of the Kolkata port on east coast.

- a) Vishakhapatnam
- b) Ennore
- c) Tuticorin
- d) Haldia.

PART II – [50 Marks]

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

Q 4) 1. *The withdrawal of the south-west monsoon leads to the clear cloudless sky, high temperature and high humidity which creates a sultry and oppressive weather.* [2]

- a) What according to you, should be the geographical term used for this condition?
- b) Name the season stating with the month when this condition develops in India.

2. Which branch of southwest monsoon collects more moisture and why? [2]

3. Give a geographical reason for each of the following: [3]

- a) Tropical cyclone brings heavy rains but temperate cyclone brings light rainfall.
- b) 'Though the Thar Region experiences both the branches of South-West monsoon yet it is a desert'.
- c) Winds are generally offshore during winters.

4. Study the climatic data and answer the following questions. [3]

Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
°C	23.1	24.8	26.5	29.3	32	32.8	33.1	32.1	30.5	29.3	28.7	26.1
cm	15.3	10.1	0.3	0.1	1.3	4.5	6.1	10.2	10.5	20.1	16.8	19.0

- a) Calculate the annual temperature range.
- b) Suggest a name of this station, giving a reason for your answer.
- c) Name the season during which rainfall is the heaviest.

Q 5)

1. As per the latest Desertification and Land Degradation Atlas of the ISRO published in June 2021, 87.85 million hectares of land in India (around 30% of the country's geographical area) has already been degraded, of which 3.32 million hectares was added between 2003 and 2019 alone. [2]

- a) Why has land degradation and soil erosion become a pressing problem in India?
- b) State two ways to overcome the problem mentioned above.

2. a) Mention two reasons to explain the unsuitability of laterite soil for agriculture. [2]

3. Give a geographical reason for each of the following: [3]
- Black soil does not get leached.
 - Red soil is ideal for dry farming.
 - Reforestation should be practised extensively.

4. Define the following: [3]
- Pedogenesis
 - Sheet Erosion
 - In-situ soils.

Q 6)

1. Study the image given below and answer the questions that follow: [2]



- Identify the forest shown in the above image. Name an area where it is found.
 - How do trees in the above forest, correlate with the environment?
2. Over ~20 years, India has lost a whopping 2.33 million hectares of tree cover, and India's apex green court has now asked the Union government for an explanation. On May 20, the National Green Tribunal (NGT) took up an important case, suo motu ("on its own motion"): it asked the union government — including the environment ministry — to explain why India has lost a whopping 2.33 million hectares of tree cover between 2000 and 2023. (Source: The Wire, 29th May, 2024.) [2]
- State two reasons for the alarming condition of forests mentioned in the above article.
 - Mention any two forest conservation methods that may be adopted to protect forests.
3. Name the trees as per the characteristic given: [3]
- The wood is hard and suitable for ship building.
 - A sweet smelling timber which yields an oil, used for making cosmetics.
 - Tree of the tropical evergreen forests used for making expensive furniture.
4. Give a geographical reason for each: [3]
- Forests play a major role in increasing soil fertility.
 - Tropical evergreen forests are least exploited.
 - Great variety of vegetation is found in different parts of India.

Q 7)

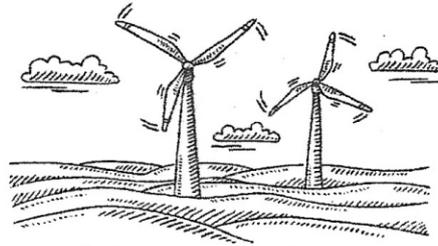
1. Drip irrigation is the only solution to the growing water crisis in the Indian Agro sector. Justify the statement with two distinct points of arguments to this effect. [2]
2. Give two points of difference between 'Inundation Canal' and 'Perennial Canal'. [2]
3. 'Woman in villages have to travel for long distances to fetch water for their daily needs. Even though there are numbers of wells. [3]
- Why is there a water shortage in India?
 - What measures have been taken by the government to overcome the water problem?
 - As a student, mention any two ways you can adopt to conserve water at home
4. Give geographical reason for each of the following: [3]
- Tank irrigation is not an efficient means of irrigation.
 - Canal irrigation leads to the ground around it becoming unproductive.
 - Tube-wells are mostly found in Northern plains.

Q 8)

1. What types of Iron Ore is mined in India? Name the two largest producing states of Iron Ore. [2]



2. Which coal field are better between Gondwana coalfields and Tertiary coalfields? Give two reasons to justify your answer. [2]



3. Identify the type of energy being harnessed in the above picture. [3]
- a) Mention why this form of energy is preferred over fossil fuels.
 - b) Why does India stand at an advantage in the production of this type of energy?
4. With reference to the Bhakra Nangal Dam, answer the following: [3]
- a) Name the river on which it has been constructed.
 - b) Name two states that benefit from this project.

Q 9)

- 1. Give two economic benefits of the Golden Quadrilateral Project. [2]
- 2. Give one advantage of air transport. Why is it still a popular means of transportation in India? [2]
- 3. Give a geographical reason for each of the following: [3]
 - a) The Peninsular rivers are not ideal for inland water transport.
 - b) It is necessary to regularly maintain and repair roads.
 - c) Airways are quite useful during natural calamity.
- 4. Rakesh is planning to take his family on a trip to visit Taj Mahal. He will be travelling with a small baby and elderly parents. He is planning to travel by train from Vadodara to Agra. [3]
 - a) Give two reason to support Rakesh's decision to travel by train.
 - b) If budget is not a constraint, what could be an alternate mode of transport instead of train and why?

Q 10)

1. Waste management rules in India are based on the principles of "sustainable development", "precaution" and "polluter pays". These principles mandate municipalities and commercial establishments to act in an environmentally accountable and responsible manner—restoring balance, if their actions disrupt it. The increase in waste generation as a by-product of economic development has led to various subordinate legislations for regulating the manner of disposal and dealing with generated waste are made under the umbrella law of Environment Protection Act, 1986 (EPA). (Source: Down to Earth, 9th Jan, 2017)

- a) Highlight the various sources of waste generation.
 - b) Account for the need for waste management in India. [2]
2. Mention two ways to reduce waste generation at home. [2]
3. a) Recycling of e-waste is one of the most popular methods of e-waste management in developing countries. It benefits a sizeable proportion of the population by providing employment in such countries. What can be one of the biggest disadvantages of these recycling efforts?
- b) Mention two ways in which composting is beneficial. [3]
4. Observe the image and answer questions that follow: [3]
- a) Which method of waste management is depicted in the image?
 - b) State one way in which this method can be implemented at home.
 - c) Why should a landfill be located far away from the city?

