

## GEOGRAPHY

### 2025

1. How are climate change and the sea level rise affecting the very existence of many island nations ? Discuss with examples. (Answer in 150 words)
2. What are non-farm primary activities? How are these activities related to physiographic features in India ? Discuss with suitable examples. (Answer in 150 words)
3. Explain briefly the ecological and economic benefits of solar energy generation in India with suitable examples. (Answer in 150 words) 10
4. What are Tsunamis? How and where are they formed? What are their consequences? Explain with examples. (Answer in 150 words) 10
5. Give a geographical explanation of the distribution of off-shore oil reserves of the world. How are they different from the on-shore occurrences of oil reserves? (Answer in 250 words) 15
6. How can Artificial Intelligence (AI) and drones be effectively used along with GIS and RS techniques in locational and aerial planning? (Answer in 250 words) 15
7. Discuss how the changes in shape and sizes of continents and ocean basins of the planet take place due to tectonic movements of the crustal masses. 15 (Answer in 250 words)
8. Discuss the distribution and density of population in the Ganga River Basin with special reference to land, soil and water resources. 15 (Answer in 250 words)

### 2024

1. What is the phenomenon of 'Cloudbursts'? Explain.
2. What is sea surface temperature rise? How does it affect the formation of tropical cyclones?
3. What is a twister? Why are the majority of twisters observed in areas around the Gulf of Mexico?
4. What is the concept of a 'demographic winter'? Is the world moving towards such a situation? Elaborate.
5. The groundwater potential of the Gangetic valley is on a serious decline. How may it affect the food security of India?

**2023**

1. Discuss the consequence of Climate change on the food security in tropical countries.
2. Why is the world today confronted with a crisis of availability of and access to freshwater resources?
3. How are the fjords formed? Why do they constitute some of the most picturesque areas of the world?
4. Why is the South-West Monsoon called 'Purvaiya' (easterly) in Bhojpur Region? How has this directional seasonal wind system influenced the cultured ethos of the region?
5. Comment on the resource potentials of the long coastline of India and highlight the status of natural hazard preparedness in these areas.
6. Identify and discuss the factors responsible for diversity of natural vegetation in India. Assess the significance of wildlife sanctuaries in rain forest regions of India.
7. Why did human development fail to keep pace with economic development in India?
8. From being net food importer in 1960, India has emerged as a net food exporter to the world. Provide reasons.

**2022**

1. Describe the characteristics and types of primary rocks.
2. Discuss the meaning of colour-coded weather warnings for cyclone prone areas given by India Meteorological Department.
3. Discuss the natural resource potentials of 'Deccan Trap'.
4. Examine the potential of wind energy in India and explain the reasons for their limited spatial spread.
5. What are the forces that influence ocean currents? Describe their role in fishing industry of the world.
6. Describing the distribution of rubber producing countries, indicate the major environmental issues faced by them.
7. Mention the significance of straits and isthmus in international trade.
8. Troposphere is a very significant atmosphere layer that determines weather processes. How?

**2021**

1. Differentiate the causes of landslides in the Himalayan region and Western Ghats.
2. Despite India being one of the countries of Gondwanaland, its mining industry contributes much less to its Gross Domestic Product (GDP) in percentage. Discuss.
3. What are the environmental implications of the reclamation of the water bodies into urban land use? Explain with examples.
4. Mention the global occurrence of volcanic eruptions in 2021 and their impact on regional environment.
5. Why is India considered as a subcontinent? Elaborate your answer.
6. Briefly mention the alignment of major mountain ranges of the world and explain their impact on local weather conditions, with examples.
7. How do the melting of the Arctic ice and glaciers of the Antarctic differently affect the weather patterns and human activities on the Earth? Explain.
8. Discuss the multi-dimensional implications of uneven distribution of mineral oil in the world.
9. What are the main socio-economic implications arising out of the development of IT industries in major cities of India?

**2020**

1. Discuss the geophysical characteristics of Circum-Pacific Zone.
2. The process of desertification does not have climate boundaries. Justify with examples.
3. How will the melting of Himalayan glaciers have a far-reaching impact on the water resources of India?
4. Account for the present location of iron and steel industries away from the source of raw material, by giving examples.
5. The interlinking of rivers can provide viable solutions to the multi-dimensional inter-related problems of droughts, floods, and interrupted navigation. Critically examine.
6. Account for the huge flooding of million cities in India including the smart ones like Hyderabad and Pune. Suggest lasting remedial measures.
7. India has immense potential of solar energy though there are regional variations in its developments. Elaborate.

8. Examine the status of forest resources of India and its resultant impact on climate change.

### **2019**

1. Assess the impact of global warming on the coral life system with examples.
2. Discuss the causes of depletion of mangroves and explain their importance in maintaining coastal ecology
3. Discuss the factors for localisation of agro-based food processing industries of North-West India.
4. What is water stress? How and why does it differ regionally in India?
5. How can the mountain ecosystem be restored from the negative impact of development initiatives and tourism?
6. How is efficient and affordable urban mass transport key to the rapid economic development of India?
7. How do ocean currents and water masses differ in their impacts on marine life and coastal environment? Give suitable examples.

### **2018**

1. Why is Indian Regional Navigational Satellite System (IRNSS) needed? How does it help in navigation?
2. Why is India taking keen interest in resources of Arctic region?
3. Define mantle plume and explain its role in plate tectonics.
4. What are the consequences of spreading of 'Dead Zones' on marine ecosystems?
5. "The ideal solution of depleting ground water resources in India is water harvesting system". How can it be made effective in urban areas?
6. Defining blue revolution, explain the problems and strategies for pisciculture development in India.
7. What is the significance of Industrial Corridors in India? Identifying industrial corridors, explain their main characteristics.
8. Mention core strategies for the transformation of aspirational districts in India & explain the nature of convergence, collaboration & Competition for its success.

### **2017**

1. How does the Juno Mission of NASA help to understand the origin and evolution of the Earth?
2. "In spite of adverse environmental impact, coal mining is still inevitable for development". Discuss.
3. Mention the advantages of the cultivation of pulses because of which the year 2016 was declared as the International Year of Pulses by United Nations.
4. How does the cryosphere affect global climate?
5. "The growth of cities as I.T. hubs has opened up new avenues of employment, but has also created new problems". Substantiate this statement with examples.
6. Account for variations in oceanic salinity and discuss its multidimensional effects.
7. Petroleum refineries are not necessarily located nearer to crude oil producing areas, particularly in many of the developing countries. Explain its implications.
8. In what way can floods be converted into a sustainable source of irrigation and all-weather inland navigation in India?
9. What characteristics can be assigned to monsoon climate that succeeds in feeding more than 50 percent of the world population residing in Monsoon Asia?

## 2016

1. With a brief background of quality of urban life in India, introduce the objectives and strategy of the 'Smart City Programme.'
2. Discuss the concept of air mass and explain its role in macro-climatic changes.
3. "The Himalayas are highly prone to landslides." Discuss the causes and suggest suitable measures of mitigation.
4. The effective management of land and water resources will drastically reduce the human miseries. Explain.
5. South China Sea has assumed great geopolitical significance in the present context. Comment.
6. Major cities of India are becoming vulnerable to flood conditions. Discuss.
7. Present an account of the Indus Water Treaty and examine its ecological, economic and political implications in the context of changing bilateral relations.
8. Enumerate the problems and prospects of inland water transport in India.

9. In what way micro-watershed development projects help in water conservation in drought-prone and semi-arid regions of India?

### 2015

1. Explain the factors responsible for the origin of ocean currents? How do they influence regional climates, fishing and navigation?
2. Mumbai, Delhi and Kolkata are the three mega cities of the country but the air pollution is much more serious problem in Delhi as compared to the other two. Why is this so?
3. India is well endowed with fresh water resources. Critically examine why it still suffers from water scarcity.
4. The states of Jammu and Kashmir, Himachal Pradesh and Uttarakhand are reaching the limits of their ecological carrying capacity due to tourism. Critically evaluate.
5. How far do you agree that the behaviour of the Indian monsoon has been changing due to humanizing landscapes? Discuss.
6. Smart cities in India cannot sustain without smart villages. Discuss this statement in the backdrop of rural urban integration.
7. What are the economic significances of discovery of oil in Arctic Sea and its possible environmental consequences?

### 2014

1. Most of the unusual climatic happenings are explained as an outcome of the El-Nino effect. Do you agree?
2. Why are the world's fold mountain systems located along the margins of continents? Bring out the association between the global distribution of fold mountains and the earthquakes and volcanoes.
3. Explain the formation of thousands of islands in Indonesian and Philippines archipelagos.
4. Tropical cyclones are largely confined to South China Sea, Bay of Bengal and Gulf of Mexico. Why?
5. Bring out the relationship between the shrinking Himalayan glaciers and the symptoms of climate change in the Indian sub-continent.

6. Whereas the British planters had developed tea gardens all along the Shivaliks and Lesser Himalayas from Assam to Himachal Pradesh, in effect they did not succeed beyond the Darjeeling area. Explain.
7. Why did the Green Revolution in India virtually by-pass the eastern region despite fertile soil and good availability of water?
8. Account for the change in the spatial pattern of the Iron and Steel industry in the world.
9. Critically evaluate the various resources of the oceans which can be harnessed to meet the resource crisis in the world.
10. How does India see its place in the economic space of rising natural resource rich Africa?

### 2013

1. (a) What do you understand by the theory of 'continental drift'? Discuss the prominent evidences in its support. (b) The recent cyclone on east coast of India was called 'Phailin'. How are the tropical cyclones named across the world? Elaborate.
2. (a) Bring out the causes for the formation of heat islands in the urban habitat of the world. (b) What do you understand by the phenomenon of 'temperature inversion' in meteorology? How does it affect weather and the habitants of the place?
3. Major hot deserts in northern hemisphere are located between 20-30 deg N latitudes and on the western side of the continents. Why?
4. (a) Bring out the causes for more frequent occurrence of landslides in the Himalayas than in the Western Ghats. (b) There is no formation of deltas by rivers of the Western Ghats. Why?
5. (a) Do you agree that there is a growing trend of opening new sugar mills in southern States of India? Discuss with justification. (b) Analyze the factors for the highly decentralized cotton textile industry in India.

6. With growing scarcity of fossil fuels, the atomic energy is gaining more and more significance in India. Discuss the availability of raw material required for the generation of atomic energy in India and in the world.
7. It is said that India has substantial reserves of shale oil and gas, which can feed the needs of the country for quarter century. However, tapping of the resource does not appear to be high on the agenda. Discuss critically the availability and issues involved.