CUET UG Geography Sample Paper -4

Duration: 1 Hour **Maximum Marks: 250**

Instructions

- This paper contains a total of 50 Multiple Choice Questions.
- Each correct answer carries **+5 marks**.
- Each incorrect answer carries **-1 mark**.
- No negative marking for unattempted questions.

Q1. Which of the following statements best defines the concept of 'Neodeterminism' as proposed by Griffith Taylor?

(A) Nature provides opportunities and man is the master.

(B) Human beings are completely dictated by environmental factors.

(C) A middle path between environmental determinism and possibilism, emphasizing 'Stop and Go'.

(D) The belief that technology can overcome all environmental constraints.

Q2. The philosophy of Human Geography that emerged in the 1970s and emphasized the central and active role of human beings in creating their own environment is:

(A) Welfare School

(B) Radical School

(C) Behavioral School

(D) Humanistic School

Q3. Match List I (School of Thought) with List II (Key Focus) and select the correct option:

No.	List I (School of Thought)	ID	List II (Key Focus)
(I)	Welfare School	(1)	Social inequality
(II)	Radical School	(2)	Social well-being
(III)	Behavioral School	(3)	Perception of space

(A) I-1, II-2, III-3

(B) I-2, II-1, III-3

(C) I-3, II-1, III-2

(D) I-2, II-3, III-1

Q4. If a country has a narrow base and a tapering top in its population pyramid, it indicates:

(A) High birth rate and low death rate.

(B) Low birth rate and low death rate.

(C) High birth rate and high death rate.

(D) Expanding population.

Q5. In the Demographic Transition Model, which stage is characterized by a "fertility remains high but mortality declines" resulting in high natural increase?

(A) Stage I

(B) Stage II

(C) Stage III

(D) Stage IV

Q6. Consider the following statements regarding Human Development: (1) It is a process of enlarging people's choices. (2) Income is the only indicator of development. Select the correct answer:

(A) Only 1 is correct

(B) Only 2 is correct

(C) Both 1 and 2 are correct

(D) Neither 1 nor 2 are correct

Q7. Which country has the highest rank in the Human Development Index (HDI) as per standard curriculum reference?

(A) Norway

(B) Switzerland

(C) Iceland

(D) Germany

Q8. The "Pull Factors" for migration include:

(A) Natural disasters

(B) Political turmoil

(C) Better job opportunities

(D) Epidemics

Q9. Which continent has the highest growth rate of population according to recent trends?

(A) Asia

(B) Africa

(C) South America

(D) Europe

Q10. In 'Kolkhoz' type of farming, the means of production are:

(A) Owned by individual farmers

(B) Owned by the state

(C) Owned by social organizations/collective

(D) Owned by multinational corporations

Q11. Market gardening is characterized by:

(A) Large farm sizes and cereal production.

(B) Small farms located near urban centers focusing on vegetables and fruits.

(C) Nomadic herding in mountainous regions.

(D) Extensive use of machinery for wheat cultivation.

Q12. Which among the following is a 'Footloose Industry'?

(A) Iron and Steel

(B) Sugar Industry

(C) Watch making

(D) Cement Industry

Q13. The sector that involves the "Knowledge-based" activities like Research and Development is:

(A) Secondary

(B) Tertiary

(C) Quaternary

(D) Quinary

Q14. Which among the following is an example of an outsourced service?

(A) Retail trade

(B) BPO (Business Process Outsourcing)

(C) Subsistence farming

(D) Mining

Q15. Transhumance refers to:

(A) The movement of people from rural to urban areas.

(B) The seasonal movement of livestock between pastures.

(C) The process of shifting cultivation.

(D) The permanent migration to foreign countries.

Q16. The 'Panama Canal' serves as a vital artery for international trade. Which of the following pairs of oceans does it connect, and what is its primary significance for the United States' eastern and western coasts?

(A) Atlantic and Indian Ocean; shortens the route to Africa.

(B) Atlantic and Pacific Ocean; shortens the distance between New York and San Francisco.

(C) Pacific and Indian Ocean; provides access to the Australian market.

(D) Arctic and Atlantic Ocean; facilitates movement of oil from Alaska.

Q17. In the context of 'Human Settlements', which of the following patterns of rural settlement is typically found along fertile river banks or along transport routes like roads and railways?

(A) Rectangular Pattern

(B) Circular Pattern

(C) Linear Pattern

(D) Star-like Pattern

Q18. Which of the following describes the 'Integrated Tribal Development Project' (ITDP) in the Bharmaur region of Himachal Pradesh?

(A) A project aimed at promoting heavy industries in tribal belts.

(B) An initiative to provide social security to urban migrants.

(C) An area-based approach focusing on the socio-economic development of the Gaddi community.

(D) A scheme for the conservation of high-altitude flora and fauna.

Q19. The 'Golden Quadrilateral' is a major project under the National Highways Development Project (NHDP). Which four major metropolitan cities does it connect?

(A) Delhi, Mumbai, Chennai, and Kolkata

(B) Delhi, Jaipur, Ahmedabad, and Mumbai

(C) Mumbai, Bengaluru, Hyderabad, and Chennai

(D) Kolkata, Guwahati, Patna, and Delhi

Q20. What is the primary reason for the high concentration of the Jute industry in the Hugli basin of West Bengal?

(A) Availability of high-grade coal for processing.

(B) Proximity to the iron and steel markets of Chotanagpur.

(C) Availability of abundant water for processing and cheap labor from neighboring states.

(D) High demand for jute products in the local agricultural sector.

Q21. Which of the following describes the 'Sectoral Planning' approach in the Indian planning process?

(A) Development of specific functional segments of the economy such as agriculture, irrigation, and manufacturing.

(B) Development of specific geographical areas to reduce regional disparities.

(C) Planning focused exclusively on the welfare of marginalized social groups.

(D) A strategy to decentralize power from the central government to local panchayats.

Q22. Which of the following factors is primarily responsible for the 'Slums' in Indian metropolitan cities like Dharavi in Mumbai?

(A) Excessive government planning and high-density housing projects.

(B) Unplanned migration from rural areas and lack of affordable housing and infrastructure.

(C) The presence of high-tech industries requiring large-scale labor.

(D) Natural disasters that destroy permanent urban settlements.

Q23. The 'National Water Grid' and 'Interlinking of Rivers' are proposed to solve which major geographical problem in India?

(A) Coastal erosion in South India.

(B) Spatial and temporal mismatch between water-surplus and water-deficit regions.

(C) Reducing the salinity of groundwater in the Indo-Gangetic plains.

(D) Improving the inland navigation facilities for international trade.

Q24. In the context of Indian agriculture, what is the significance of 'Retting' in the production of fiber crops?

(A) It is the process of removing seeds from the cotton boll.

(B) It is the process of soaking jute stalks in water to separate the fibers from the stem.

(C) It is a technique of multi-cropping in dryland farming.

(D) It is a method of pest control used in organic farming.

Q25. The 'Cyberabad' region in Hyderabad is a classic example of which type of urban land use?

(A) Traditional Commercial Core

(B) High-tech Industrial and Information Technology Park

(C) Low-income Residential Slum

(D) Primary Sector Processing Zone

Q26. Which of the following states in India has the highest density of population according to the 2011 Census?

(A) West Bengal
(B) Bihar
(C) Uttar Pradesh
(D) Kerala

Q27. The 'Main Workers' in the Census of India are those who work for at least:

(A) 100 days in a year
(B) 183 days in a year
(C) 200 days in a year
(D) 6 months in a year

Q28. Which of the following is the largest linguistic group in India?

(A) Sino-Tibetan
(B) Austric
(C) Dravidian
(D) Indo-Aryan

Q29. In which of the following phases of population growth in India is the period 1951-1981 referred to as the phase of 'Population Explosion'?

(A) Phase I
(B) Phase II
(C) Phase III
(D) Phase IV

Q30. Which state has the highest percentage of its population living in rural areas as per the 2011 Census?

(A) Himachal Pradesh

(B) Bihar

(C) Odisha

(D) Sikkim

Q31. Which of the following is an example of a 'Mining Town' in India?

(A) Jharia

(B) Varanasi

(C) Chandigarh

(D) Itarsi

Q32. Garrison towns are also known as:

(A) Administrative towns

(B) Cantonment towns

(C) Religious towns

(D) Commercial towns

Q33. Which of the following is a 'Hamleted Settlement' mostly found in the middle and lower Ganga plain?

(A) Panna or Pali

(B) Clustered

(C) Dispersed

(D) Semi-clustered

Q34. The 'Aman', 'Aus', and 'Boro' are varieties of which crop grown in West Bengal?

(A) Wheat

(B) Rice

(C) Sugarcane

(D) Jute

Q35. Which of the following is the leading producer of 'Copper' in India?

(A) Odisha

(B) Madhya Pradesh

(C) Rajasthan

(D) Jharkhand

Q36. Which of the following is a non-conventional source of energy?

(A) Coal

(B) Petroleum

(C) Natural Gas

(D) Solar Energy

Q37. The first oil well in India was drilled at:

(A) Mumbai High

(B) Ankleshwar

(C) Digboi

(D) Naharkatiya

Q38. Which of the following regions is known for 'Dryland Farming' in India?

(A) Punjab

(B) Western Rajasthan

(C) Kerala

(D) Assam

Q39. The planning for 'Watershed Management' in India is primarily aimed at:

(A) Building large dams for hydroelectricity.

(B) Conservation of surface and groundwater resources to prevent runoff.

(C) Promotion of water-intensive crops in arid regions.

(D) Connecting major rivers through a national grid.

Q40. **Map Based (Logic):** If you are traveling from Chennai to Kolkata along the coast, which major delta will you NOT cross?

(A) Krishna Delta

(B) Godavari Delta

(C) Mahanadi Delta

(D) Narmada Delta

Passage I

Cyber Space - The World of the Internet

Read the following passage and answer the questions 41 to 45:

Cyberspace is the world of electronic computer space. It is encompassed by the Internet such as the World Wide Web (www). In simple words, it is the electronic digital world for communicating or accessing information over computer networks without physical movement of the sender and the receiver. It is also called the Internet. Cyberspace exists everywhere. It may be in an office, sailing in a boat, flying in a plane, and virtually anywhere. The speed at which this electronic network has spread is unprecedented in human history. There were less than 50 million users in 1995, about 400 million in 2000, and over 2 billion in 2010. In the last few years, there has been a shift from developed to developing countries.

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Q41. Which of the following best defines Cyberspace?

(A) A physical space where computers are stored.

(B) An electronic digital world for communicating without physical movement.

(C) A satellite-based tracking system for ships.

(D) The physical hardware of a computer network.

Q42. According to the passage, the growth of the Internet is described as:

(A) Gradual and slow.

(B) Unprecedented in human history.

(C) Limited only to developed nations.

(D) Declining since 2010.

Q43. By 2010, approximately how many people were using the internet?

(A) 50 Million

(B) 400 Million

(C) Over 2 Billion

(D) 5 Billion

Q44. What recent shift in internet usage is mentioned?

(A) From rural areas to urban areas.

(B) From developing to developed countries.

(C) From developed to developing countries.

(D) From computers to mobile phones.

Q45. The World Wide Web (www) is a part of:

(A) Tertiary activities only.

(B) Physical movement systems.

(C) Cyberspace.

(D) Traditional postal services.

Passage 2

Water Pollution in India

Read the following passage and answer the questions 46 to 50:

Water pollution in India is a significant environmental challenge. The major sources of pollution are domestic sewage, industrial effluents, and agricultural runoff. Most of the Indian rivers, especially the Ganga and the Yamuna, are highly polluted. The Central Pollution Control Board (CPCB) along with State Pollution Control Boards (SPCBs) monitors the water quality of these rivers. While the organic and bacterial contamination is high in domestic sewage, industrial units contribute heavy metals and toxic chemicals. In agricultural areas, the use of chemical fertilizers and pesticides leads to the leaching of nitrates and phosphates into groundwater and surface water.

Q46. Which two rivers are specifically mentioned as being highly polluted?

(A) Narmada and Tapti

(B) Ganga and Yamuna

(C) Godavari and Krishna

(D) Indus and Brahmaputra

Q47. Heavy metals and toxic chemicals in water bodies are primarily contributed by:

(A) Domestic sewage

(B) Agricultural runoff

(C) Industrial units

(D) Natural weathering

Q48. What is the role of the CPCB?

(A) To provide irrigation to farmers.

(B) To monitor the water quality of rivers.

(C) To build dams across major rivers.

(D) To regulate the speed of river flow.

Q49. Agricultural runoff contributes which specific pollutants to water?

(A) Bacteria and organic waste.

(B) Nitrates and phosphates.

(C) Plastic and glass.

(D) Oil and grease.

Q50. Which boards are responsible for monitoring environmental pollution in India?

(A) National River Authority

(B) CPCB and SPCBs

(C) Ministry of Agriculture

(D) Indian Meteorological Department

Detailed Solutions

Q1.

Solution

Concept:

The concept of Neodeterminism was introduced by Griffith Taylor to provide a balanced view between Environmental Determinism (where nature dictates human action) and Possibilism (where humans are masters of nature). It is often called 'Stop and Go Determinism'.

Solution:

1. Neodeterminism suggests that human beings can conquer nature by obeying it. 2. It uses the analogy of a traffic controller in a city; man can accelerate, slow, or stop the progress of a country's development, but he should not deviate from the natural directions. 3. It implies that neither is there a situation of absolute necessity (Determinism) nor is there a condition of absolute freedom (Possibilism). 4. Therefore, it is a middle path that emphasizes sustainable limits to human choices.

Final Answer: A middle path between environmental determinism and possibilism, emphasizing 'Stop and Go'.

Answer: (C)

Q2.

Solution

Concept:

In the 1970s, new schools of thought emerged in Human Geography to address social issues and the human experience. The Humanistic school focused on the subjective and creative agency of humans.

Solution:

1. The Humanistic School of thought emerged as a critique of quantitative geography which treated humans as passive dots on a map. 2. It emphasized the central role of human consciousness, values, and agency. 3. It focuses on how humans perceive their environment and how they give meaning to places. 4. This school is closely associated with concepts like 'Sense of Place' and lived experience.

Final Answer: Humanistic School

Answer: (D)

Q3.

Solution

Concept:

Human geography uses different schools of thought to analyze societal patterns. Welfare, Radical, and Behavioral schools each have a distinct focus on social well-being, power structures, and individual perception respectively.

Solution:

1. The Welfare or Humanistic School is concerned with the social well-being of the people, including aspects like housing, health, and education. 2. The Radical School uses Marxist theory to explain that social inequality and poverty are the result of the development of capitalism. 3. The Behavioral School laid great emphasis on lived experience and the perception of space by social categories like ethnicity, race, and religion. 4. Matching these: I-2, II-1, and III-3.

Final Answer: I-2, II-1, III-3

Answer: (B)

Q4.

Solution

Concept:

Population pyramids (Age-Sex pyramids) visually represent the demographic structure of a country. The shape reveals birth and death rates.

Solution:

1. A narrow base indicates a low birth rate, as fewer children are being born compared to older cohorts. 2. A tapering top (and often a bulge in the middle or top) indicates low death rates and higher life expectancy. 3. This specific shape (constrictive pyramid) is characteristic of developed countries. 4. This results in a declining or stationary population growth.

Final Answer: Low birth rate and low death rate.

Answer: (B)

Q5.

Solution

Concept:

The Demographic Transition Model (DTM) explains the transformation of countries from high birth/death rates to low birth/death rates.

Solution:

1. In Stage I, both birth and death rates are high, and population growth is slow. 2. In Stage II (Early Expanding), improvements in sanitation and health lead to a sharp decline in mortality. 3. However, fertility (birth rate) remains high in the beginning of this stage, leading to a high natural increase or "population explosion". 4. By Stage III, fertility begins to decline, and in Stage IV, both are low.

Final Answer: Stage II

Answer: (B)

Q6.

Solution

Concept:

Human development is a multi-dimensional concept that goes beyond economic growth. It focuses on the quality of life, the freedom people enjoy, and the opportunities available to them.

Solution:

1. According to Mahbub-ul-Haq and Amartya Sen, human development is about enlarging the range of people's choices and increasing their capabilities. 2. Statement 1 is correct because increasing choices (like education, health, and political freedom) is the core of human development. 3. Statement 2 is incorrect because while income is an important resource, it is a means to an end, not the end itself. Development is measured by health, education, and access to resources, not just income level. 4. Therefore, the expansion of human functional capabilities is the true indicator of development.

Final Answer: Only 1 is correct

Answer: (A)

Q7.

Solution

Concept:

The Human Development Index (HDI) is a statistical tool used to measure a country's overall achievement in its social and economic dimensions. It is calculated annually by the United Nations Development Programme (UNDP).

Solution:

1. The HDI is based on three basic dimensions: a long and healthy life (Life Expectancy), being knowledgeable (Mean and Expected years of schooling), and having a decent standard of living (GNI per capita). 2. For several years, Norway and Switzerland have consistently occupied the top positions in global rankings. 3. As per the standard curriculum data and recent reports cited in Geography textbooks, Switzerland or Norway are the primary examples of "Very High" human development. 4. Among the given options, Switzerland (or Norway in earlier editions) represents the highest tier of the index.

Final Answer: Switzerland

Answer: (B)

Q8.

Solution

Concept:

Migration is influenced by two sets of factors: Push factors, which make the place of origin seem less attractive, and Pull factors, which make the place of destination seem more attractive.

Solution:

1. Push factors are negative aspects of the home region, such as unemployment, poor living conditions, political turmoil, unpleasant climate, natural disasters, and epidemics. 2. Pull factors are positive aspects of the destination, such as better job opportunities and living conditions, peace and stability, security of life and property, and pleasant climate. 3. Natural disasters, political turmoil, and epidemics are all factors that force people to leave (Push). 4. Better job opportunities attract people to a new location (Pull).

Final Answer: Better job opportunities

Answer: (C)

Q9.

Solution

Concept:

The population growth rate refers to the change in population over a specific period of time, expressed as a percentage. It is important to distinguish between total population (size) and the rate of growth.

Solution:

1. While Asia has the largest absolute number of people, its growth rate has been slowing down significantly in many regions. 2. Africa currently experiences the highest population growth rate among all continents. 3. This high growth is due to a significant decline in death rates (due to improved medical facilities) while birth rates remain relatively high. 4. In contrast, Europe has the lowest growth rate, with some countries even experiencing a population decline.

Final Answer: Africa

Answer: (B)

Q10.

Solution

Concept:

Collective farming, known as Kolkhoz, was introduced in the former Soviet Union (USSR) as a way to improve agricultural efficiency and move towards a socialist model of production.

Solution:

1. Under the Kolkhoz system, farmers pooled their resources like land, livestock, and labor. 2. The means of production are owned by the collective or the social organization, not by individual farmers or private corporations. 3. Farmers were allowed to retain very small plots of land for personal use to grow vegetables or keep a few animals, but the bulk of the production was for the collective. 4. This model aimed to modernize agriculture through large-scale operations and the use of machinery provided by the state.

Final Answer: Owned by social organizations/collective

Answer: (C)

Q11.

Solution

Concept:

Market gardening and horticulture is a specialized form of agriculture that focuses on high-value crops. It is highly intensive and dictated by the proximity to urban demand.

Solution:

1. Market gardening is characterized by the cultivation of high-value crops such as vegetables, fruits, and flowers solely for urban markets. 2. The farms are typically small and located where there are good transportation links to the city (often referred to as "truck farming" because the distance a truck can cover overnight determines the reach). 3. It is both capital and labor-intensive, requiring heavy use of fertilizers, high-quality seeds, irrigation, and sometimes greenhouses. 4. Unlike extensive grain farming, which uses large tracts of land for cereals, market gardening maximizes the yield of perishable goods on small plots.

Final Answer: Small farms located near urban centers focusing on vegetables and fruits.

Answer: (B)

Q12.

Solution

Concept:

Industrial location is often determined by access to raw materials or markets. However, some industries are not tied to any specific location-governing factor; these are known as "Footloose Industries."

Solution:

1. Footloose industries can be located in a wide variety of places because they are not dependent on specific raw materials that lose weight during processing (like iron ore or sugarcane). 2. They typically produce high-value products in small quantities and rely on component parts that can be easily transported. 3. They are often environment-friendly and depend more on a highly skilled labor force and efficient road networks rather than proximity to mines or heavy power sources. 4. Watch making and electronics are classic examples, whereas Iron and Steel, Sugar, and Cement are "weight-losing" or "resource-linked" industries that must be near raw material sources.

Final Answer: Watch making

Answer: (C)

Q13.

Solution

Concept:

Economic activities are classified based on the nature of the work. As economies advance, they move from primary and secondary production toward specialized knowledge-based services.

Solution:

1. The Tertiary sector involves the provision of services (trade, transport, etc.). 2. The Quaternary sector is a more specialized segment of the service sector that involves "Knowledge-based" activities. 3. This includes information collection, production, and dissemination, along with Research and Development (R and D). 4. People working in office buildings, elementary schools, and university classrooms, or those involved in specialized financial and legal consultancy, belong to this category. 5. The Quinary sector, meanwhile, focuses on high-level decision-making and policy formulation.

Final Answer: Quaternary

Answer: (C)

Q14.

Solution

Concept:

Outsourcing or offshoring involves contracting out a business process or a specific task to an outside agency or a different location to improve efficiency and reduce costs.

Solution:

1. Outsourcing is common in modern service-driven economies where companies focus on their core competencies and delegate non-core tasks. 2. Business Process Outsourcing (BPO) is a prime example where tasks like customer support, technical assistance, or data entry are handled by specialized firms, often in different countries. 3. Retail trade and mining are direct economic activities, and subsistence farming is a traditional primary activity. 4. BPO allows companies to take advantage of lower labor costs and time-zone differences in developing nations like India or the Philippines.

Final Answer: BPO (Business Process Outsourcing)

Answer: (B)

Q15.

Solution

Concept:

In pastoralism, the availability of pasture and water changes with the seasons. Certain communities have adapted to these environmental changes through specific migratory patterns.

Solution:

1. Transhumance is the practice of seasonal migration of herders with their animals between lowlands and highlands. 2. In mountainous regions (like the Himalayas), herders move from the plains to high-altitude pastures (Merg) in summer and return to the plains in winter. 3. Communities like the Gujjars, Bakarwals, and Gaddis in India are well-known for this practice. 4. In vertical transhumance, temperature dictates the movement, whereas in horizontal transhumance (like in the steppes), rainfall patterns and water availability guide the migration.

Final Answer: The seasonal movement of livestock between pastures.

Answer: (B)

Q16.

Solution

Concept:

The Panama Canal is one of the most strategic man-made waterways in the world, significantly impacting global maritime geography. It was constructed across the Isthmus of Panama to eliminate the long and hazardous voyage around the southern tip of South America (Cape Horn).

Solution:

1. The Panama Canal connects the Atlantic Ocean in the east with the Pacific Ocean in the west. It is a lock-based canal system that lifts ships up to the level of Gatun Lake and lowers them back to sea level. 2. Its primary economic significance lies in drastically reducing the sailing distance between the eastern and western coasts of North and South America. 3. For instance, the distance between New York (East Coast) and San Francisco (West Coast) was reduced by nearly 13,000 km compared to the route around South America. 4. This reduction in distance translates to immense savings in fuel costs, time, and shipping insurance, making it a critical link for international trade and the domestic economy of the United States.

Final Answer: Atlantic and Pacific Ocean; shortens the distance between New York and San Francisco.

Answer: (B)

Q17.

Solution

Concept:

Rural settlement patterns are influenced by physical features (topography, climate, water) and cultural/economic factors (roads, safety, land ownership). These patterns describe the geometrical shape of the settlement as seen from above.

Solution:

1. A Linear Pattern occurs when houses are built along a specific line of attraction. This is most common where the geography or infrastructure dictates a single direction of growth. 2. In such settlements, houses are constructed along a road, a railway line, a canal, or the edge of a river valley. 3. Fertile river banks often host linear settlements because they provide both water and a natural corridor for movement. Similarly, transport routes attract shops and residences that align themselves with the flow of traffic. 4. Other patterns include the Rectangular (common in plains), Circular (around a lake or pond), and Star-like (where several roads converge), but for river banks and roads, the linear arrangement is the most efficient and common geographical response.

Final Answer: Linear Pattern

Answer: (C)

Q18.

Solution

Concept:

The Integrated Tribal Development Project (ITDP) represents a shift in Indian planning toward "Area-based Planning," which aims to reduce regional disparities by focusing on geographically and socially disadvantaged areas.

Solution:

1. The Bharmaur region in Himachal Pradesh is a high-altitude, rugged terrain inhabited by the 'Gaddi' tribal community, who traditionally practiced transhumance. 2. The ITDP was launched in the 1970s to bring about holistic development in this harsh environment. The project focused on improving infrastructure such as schools, healthcare facilities, roads, and electricity. 3. A key objective was to improve the quality of life of the Gaddis by promoting sustainable agriculture, animal husbandry (sheep and goat rearing), and social services. 4. The success of this project is often cited in geography as it led to a significant increase in literacy rates, improved gender ratios, and a transition toward a more settled life and diversified economy for the tribal population.

Final Answer: An area-based approach focusing on the socio-economic development of the Gaddi community.

Answer: (C)

Q19.

Solution

Concept:

The Golden Quadrilateral (GQ) is the largest highway project in India and the fifth-longest in the world. It is managed by the National Highways Authority of India (NHAI) under the Ministry of Road Transport and Highways.

Solution:

1. The primary objective of the Golden Quadrilateral is to connect the four major metropolitan and industrial hubs of India: Delhi (North), Mumbai (West), Chennai (South), and Kolkata (East). 2. By creating a high-speed road network, the project aims to facilitate the faster movement of goods and people, reduce the time and cost of transport, and boost the economic development of the regions it passes through. 3. It comprises nearly 5,846 km of four- or six-lane expressways. It also forms the backbone for agricultural and industrial transport by connecting major ports to the hinterland. 4. The GQ has significantly reduced the travel time between these "mega-cities," acting as a catalyst for the growth of smaller towns and satellite cities along its route.

Final Answer: Delhi, Mumbai, Chennai, and Kolkata

Answer: (A)

Q20.

Solution

Concept:

The localization of industries is rarely the result of a single factor; it is usually a combination of raw material availability, transport, labor, and market access. The Jute industry is a "weight-losing" industry that requires specific environmental conditions.

Solution:

1. The Hugli basin in West Bengal is the world's most significant jute-producing region. This concentration is due to several geographical and historical advantages. 2. First, jute is a labor-intensive and water-intensive crop. The basin provides abundant water from the Hugli River for "retting" (the process of soaking jute stalks to loosen the fibers). 3. Second, the region benefits from a dense network of railways, waterways, and roads that facilitate the easy movement of raw materials to the mills. 4. Third, the industry requires cheap and skilled labor, which is readily available from the densely populated states of West Bengal, Bihar, Odisha, and Uttar Pradesh. 5. Additionally, the proximity of Kolkata as a major port allows for easy export of jute products, while the banking and insurance facilities in the city provide the necessary financial support.

Final Answer: Availability of abundant water for processing and cheap labor from neighboring states.

Answer: (C)

Q21.

Solution

Concept:

Planning is a conscious effort to achieve socio-economic goals by utilizing resources efficiently. In India, the Planning Commission (now NITI Aayog) utilized two main approaches: Sectoral Planning and Regional Planning. Understanding the distinction is crucial for analyzing development strategies.

Solution:

1. Sectoral Planning involves the formulation and implementation of a set of schemes or programs aimed at developing specific sectors of the economy. These sectors include agriculture, irrigation, manufacturing, power, transport, communication, social infrastructure, and services. 2. The logic behind this approach is that targeted investment in specific functional areas will lead to overall economic growth. 3. For example, the Green Revolution was a result of sectoral planning focused on the agricultural sector to achieve food self-sufficiency. 4. This differs from Regional Planning, which focuses on the spatial distribution of development to ensure that no specific geographic area is left behind. 5. Sectoral planning ensures that the technical and productive capacities of the nation are upgraded systematically, though it may sometimes inadvertently lead to regional imbalances if investments are concentrated in high-potential areas.

Final Answer: Development of specific functional segments of the economy such as agriculture, irrigation, and manufacturing.

Answer: (A)

Q22.

Solution

Concept:

Slums represent the informal side of urbanization. They are characterized by dilapidated housing, overcrowding, lack of basic amenities like clean water and sanitation, and insecure land tenure. They are a physical manifestation of urban poverty and systemic planning failures.

Solution:

1. The primary driver of slum formation in Indian metropolises is the mismatch between rural-to-urban migration and the urban system's capacity to absorb it. 2. Millions migrate to cities like Mumbai in search of "pull factors" like employment. However, due to the high cost of land and formal housing, these migrants are forced to occupy marginal lands (along railway tracks, marshes, or industrial peripheries). 3. Dharavi, for example, grew as a result of unplanned migration where residents built their own dwellings using temporary materials. 4. The lack of affordable housing provided by the state or private sector leaves low-income workers with no choice but to live in high-density, sub-standard conditions. 5. Furthermore, the rapid pace of urbanization often outstrips the government's ability to provide essential infrastructure, leading to the environmental degradation and health hazards commonly associated with these settlements.

Final Answer: Unplanned migration from rural areas and lack of affordable housing and infrastructure.

Answer: (B)

Q23.

Solution

Concept:

India experiences extreme variations in rainfall due to its monsoonal climate. While some regions face devastating annual floods, others suffer from chronic drought. This spatial and temporal imbalance is the core challenge of Indian water management.

Solution:

1. The National Water Grid and the Interlinking of Rivers (ILR) project aim to transfer water from "surplus" river basins (like the Ganga and Brahmaputra) to "deficit" basins (like the Cauvery or the Krishna). 2. The primary objective is to mitigate the effects of drought in regions like Vidarbha, Rayalaseema, and parts of Rajasthan, while simultaneously reducing the flood fury in the Northeast and Bihar. 3. Geographically, this project attempts to correct the "spatial mismatch" where 804. By creating a network of canals and reservoirs, the government hopes to expand the net irrigated area, enhance food security, and potentially generate hydroelectric power. 5. However, the project remains controversial due to its massive environmental footprint, potential for ecological disruption, and the displacement of local communities.

Final Answer: Spatial and temporal mismatch between water-surplus and water-deficit regions.

Answer: (B)

Q24.

Solution

Concept:

Fiber crops like jute and flax require specific post-harvest processing to extract the usable fiber from the plant's stem. Retting is a biological process that utilizes moisture and microorganisms to facilitate this extraction.

Solution:

1. Retting is the most critical step in the production of jute. Once the jute stalks are harvested, they are tied into bundles and immersed in slow-moving water (like ponds, canals, or rivers) for approximately 2 to 3 weeks. 2. During this period, the action of bacteria and moisture softens the tissues and dissolves the pectin that binds the fibers to the woody core of the stem. 3. After the retting is complete, the fibers are manually stripped from the stalks, washed in clean water, and hung up to dry in the sun. 4. The quality of the jute fiber—its color, strength, and luster—depends heavily on the quality of the water used and the duration of the retting process. 5. This is why the jute industry is so heavily concentrated in the Hugli basin; the abundance of stagnant or slow-moving freshwater from the Ganga-Brahmaputra delta system provides the perfect natural environment for large-scale retting.

Final Answer: It is the process of soaking jute stalks in water to separate the fibers from the stem.

Answer: (B)

Q25.

Solution

Concept:

Modern urban geography has seen the emergence of specialized functional zones. These areas are often developed on the outskirts of traditional cities to accommodate new-age economic activities like Information Technology (IT) and Business Process Outsourcing (BPO).

Solution:

1. Cyberabad is a specialized enclave located in the western part of Hyderabad (specifically areas like HITEC City). It was developed to transform the city into a global technology hub. 2. Unlike the old city of Hyderabad, which is characterized by high-density residential and traditional retail land use, Cyberabad is planned with high-tech infrastructure, glass-facade office towers, and large campuses for multinational tech giants. 3. This area represents a shift in urban land use from secondary (manufacturing) or traditional tertiary (retail) activities toward quaternary and quinary activities—research, software development, and high-level consultancy. 4. The development of such zones often leads to the growth of gated residential communities, luxury malls, and improved transport links (like the Hyderabad Metro) to serve the high-income workforce. 5. Geographically, it serves as an example of a "Satellite City" or an "Edge City" that has its own economic logic independent of the original city center.

Final Answer: High-tech Industrial and Information Technology Park

Answer: (B)

Q26.

Solution

Concept:

Density of population is measured as the number of persons per unit area. It is a crucial indicator to understand the spatial distribution of population and the pressure on land resources. According to the Census of India 2011, there were significant shifts in density across various states.

Solution:

1. Historically, West Bengal held the top position for several decades. However, in the 2011 Census, Bihar overtook West Bengal to become the most densely populated state in India. 2. Bihar recorded a density of 1,106 persons per square kilometer. 3. West Bengal followed closely in second place with 1,028 persons per square kilometer. 4. Kerala, though having a high density (860), ranks lower than Bihar and West Bengal. Uttar Pradesh has a very high absolute population, but its large geographical area results in a lower density (829) compared to Bihar. 5. This high density in Bihar is attributed to the fertile alluvial plains of the Ganga, which support high agricultural productivity and, consequently, high human settlement concentration.

Final Answer: Bihar

Answer: (B)

Q27.

Solution

Concept:

The Census of India classifies the population into workers and non-workers based on their economic activity. Workers are further subdivided into 'Main Workers' and 'Marginal Workers' to gauge the intensity and stability of employment.

Solution:

1. A 'Worker' is defined as a person who participates in any economically productive activity with or without compensation. 2. 'Main Workers' are those who had worked for the major part of the reference period (one year). 3. Specifically, the Census defines Main Workers as individuals who worked for at least 183 days (or six months) in the year preceding the enumeration. 4. If a person worked for less than 183 days, they are classified as 'Marginal Workers'. 5. This classification helps the government understand the extent of underemployment and seasonal employment in the economy, particularly in the agricultural sector where labor demand fluctuates.

Final Answer: 183 days in a year

Answer: (B)

Q28.

Solution

Concept:

India is a linguistically diverse country. The languages spoken in India belong to four major families: Indo-European (Indo-Aryan), Dravidian, Austric (Nishada), and Sino-Tibetan (Kirata).

Solution:

1. The Indo-Aryan group is the largest linguistic family in India, spoken by approximately 742. The Dravidian family is the second-largest group (about 203. The Austric and Sino-Tibetan groups are much smaller, spoken mostly by tribal populations in Central India and the Himalayan/North-eastern regions respectively. 4. The dominance of the Indo-Aryan group is due to its widespread presence across the vast Indo-Gangetic plains and Central India. 5. Understanding these groups is essential for analyzing cultural regions and internal migration patterns in India.

Final Answer: Indo-Aryan

Answer: (D)

Q29.

Solution

Concept:

The history of population growth in India is divided into four distinct phases: Phase I (Stagnant), Phase II (Steady Growth), Phase III (Rapid Explosion), and Phase IV (Slowing Down).

Solution:

1. Phase III (1951-1981) is known as the period of population explosion in India. 2. During this time, the death rate fell sharply due to improved health facilities, sanitation, and the control of epidemics. 3. However, the birth rate remained high, leading to a very high natural rate of increase. 4. Additionally, the post-independence era saw improved living conditions and developmental activities that further supported population growth. 5. In contrast, Phase I (1901-1921) actually saw a negative growth rate in 1921 due to famines and the influenza pandemic. Phase IV (post-1981) has seen a gradual decline in the growth rate as birth rates have started to fall.

Final Answer: Phase III

Answer: (C)

Q30.

Solution

Concept:

Urbanization levels vary significantly across India. While the national average of urbanization is increasing, several states remain predominantly rural due to their terrain, economy, or lack of industrial hubs.

Solution:

1. According to the 2011 Census, Himachal Pradesh has the highest percentage of its population living in rural areas. 2. Approximately 903. This is largely due to the mountainous topography of the state, which limits the growth of large-scale industrial urban centers. 4. Bihar also has a very high rural population percentage (around 88.75. Understanding these figures is vital for rural development planning and the allocation of resources for the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA).

Final Answer: Himachal Pradesh

Answer: (A)

Q31.

Solution

Concept:

Towns and cities are often classified based on their dominant economic activity or the primary function they serve. While modern cities are multi-functional, some retain a distinct identity linked to their origins or major industries.

Solution:

1. Mining towns are those that have developed specifically due to the presence of mineral resources in their vicinity. These towns often grow rapidly following the discovery of ores and serve as hubs for extraction and processing. 2. Jharia, located in Jharkhand, is one of the most famous mining towns in India, renowned for its massive coal reserves. It is the heart of India's coking coal production. 3. In contrast, Varanasi is a religious or cultural town, Chandigarh is a planned administrative town, and Itarsi is a major transport/junction town. 4. Other examples of mining towns in India include Digboi (oil), Raniganj (coal), and Ankleshwar (petroleum). 5. The economy of Jharia is almost entirely dependent on the coal mines, which also presents significant environmental challenges like underground mine fires.

Final Answer: Jharia

Answer: (A)

Q32.

Solution

Concept:

The functional classification of towns helps in understanding their historical and strategic importance. Garrison towns have a specific administrative and physical structure designed for defense.

Solution:

1. Garrison towns, also known as Cantonment towns, were primarily established during the British colonial period to house military troops and provide training grounds. 2. These towns are characterized by a distinct layout, often separated from the main civilian areas, with specific zones for barracks, parades, and officers' residences. 3. Examples in India include Ambala, Mhow, Jalandhar, Babina, and Udhampur. 4. Administrative towns (like New Delhi or Gandhinagar) focus on governance, religious towns (like Puri) focus on pilgrimage, and commercial towns (like Mumbai) focus on trade. 5. Even today, these cantonment areas are managed by Cantonment Boards under the Ministry of Defence, maintaining their unique character and infrastructure.

Final Answer: Cantonment towns

Answer: (B)

Q33.

Solution

Concept:

Rural settlements in India are classified into four types: Clustered, Semi-clustered, Hamleted, and Dispersed. This classification is based on the degree of dispersion of the houses.

Solution:

1. Hamleted settlements occur when a large settlement is fragmented into several smaller units which are physically separated from each other but bear the same name. 2. These small units are locally called Panna, Para, Pali, Nagla, or Dhani in various parts of the country. 3. This segmentation is often motivated by social and ethnic factors, where different castes or communities live in separate hamlets within the same village boundary. 4. This pattern is frequently observed in the middle and lower Ganga plains, Chhattisgarh, and the lower valleys of the Himalayas. 5. Unlike clustered settlements where houses are compact, hamleted settlements show a dispersed yet socially linked spatial arrangement.

Final Answer: Panna or Pali

Answer: (A)

Q34.

Solution

Concept:

Rice is the staple food crop for a majority of the Indian population. In regions with favorable climatic conditions, particularly high rainfall and humidity, farmers can grow multiple crops of rice in a single agricultural year.

Solution:

1. In West Bengal and parts of Odisha, the climatic conditions allow for the cultivation of three distinct varieties of rice in one year. 2. These varieties are known as 'Aus' (Autumn), 'Aman' (Winter), and 'Boro' (Summer). 3. 'Aman' is the most important of the three, typically sown during the monsoon and harvested in winter, accounting for the bulk of the production. 4. 'Aus' is a short-duration crop sown with pre-monsoon showers, while 'Boro' is grown in the summer with the help of irrigation. 5. This triple-cropping system is a response to the tropical climate and the availability of water in the deltaic regions, making West Bengal a leading producer of rice in India.

Final Answer: Rice

Answer: (B)

Q35.

Solution

Concept:

Copper is an indispensable metal in the electrical industry due to its high conductivity and ductility. In India, copper deposits are limited and concentrated in a few specific geological belts.

Solution:

1. While Rajasthan (Khetri) and Jharkhand (Singhbhum) are historically significant for copper mining, Madhya Pradesh has emerged as the leading producer in recent years. 2. The Balaghat district in Madhya Pradesh, specifically the Malanjkhand mine, produces the largest share of copper ore in India. 3. Malanjkhand is an open-cast mine and is the largest copper ore producing unit of Hindustan Copper Limited. 4. Rajasthan follows as the second largest producer, with mines located in the Khetri-Singhana belt in Jhunjhunu district. 5. Jharkhand's Singhbhum district was the first major copper producer, but its share has declined relative to the high-output mines in Madhya Pradesh.

Final Answer: Madhya Pradesh

Answer: (B)

Q36.

Solution

Concept:

Energy resources are classified into conventional and non-conventional sources. Conventional sources (like coal and oil) are exhaustible and have been in use for a long time, whereas non-conventional sources are renewable and environment-friendly.

Solution:

1. Non-conventional energy sources include solar, wind, tidal, geothermal, and biomass energy. These are often called "renewable" because they are replenished naturally and do not deplete with use. 2. Solar energy is harnessed using photovoltaic cells that convert sunlight directly into electricity. It is particularly relevant for a tropical country like India. 3. Coal, Petroleum, and Natural Gas are fossil fuels. They are considered conventional because they took millions of years to form and are finite; once consumed, they cannot be replaced within a human timeframe. 4. The shift toward non-conventional sources is a key part of India's strategy for "Sustainable Development" and reducing carbon emissions to combat climate change. 5. Unlike fossil fuels, solar energy does not release greenhouse gases during operation, making it a "clean" energy source.

Final Answer: Solar Energy

Answer: (D)

Q37.

Solution

Concept:

The exploration and production of petroleum in India has a long history, starting from the remote corners of Northeast India before expanding to the offshore basins of the west coast.

Solution:

1. The first oil well in India (and in Asia) was drilled in the year 1867 at Makum, but the first commercial discovery and successful oil well were established at Digboi in the Tinsukia district of Assam in 1889. 2. For many decades, Assam remained the only oil-producing state in India. Digboi is often referred to as the "Oil City" of Assam and houses one of the oldest operating refineries in the world. 3. Mumbai High, located offshore in the Arabian Sea, was discovered much later in the 1970s and is currently the largest producer, but it was not the first. 4. Ankleshwar in Gujarat is another major field discovered in the late 1950s. 5. The discovery at Digboi laid the foundation for the petroleum industry in India, eventually leading to the formation of major corporations like Oil India Limited (OIL) and ONGC.

Final Answer: Digboi

Answer: (C)

Q38.

Solution

Concept:

Agricultural practices in India are often categorized based on the availability of moisture. Dryland farming is practiced in regions where the annual rainfall is less than 75 cm and irrigation facilities are minimal.

Solution:

1. Dryland farming focuses on soil moisture conservation and the cultivation of drought-resistant crops like millets (jowar, bajra, ragi), pulses, and oilseeds. 2. Western Rajasthan is the most prominent region for dryland farming in India due to its arid climate and the presence of the Thar Desert. The evaporation rate here exceeds the precipitation rate. 3. In contrast, Punjab is characterized by "Irrigated Farming" thanks to the extensive canal network and tube wells. 4. Kerala and Assam are regions of "Wetland Farming" or heavy rainfall areas where crops like rice and jute dominate. 5. Farmers in Western Rajasthan use specialized techniques like 'khadins' and 'tankas' to harvest rainwater and sustain agriculture in an environment where water is a scarce resource.

Final Answer: Western Rajasthan

Answer: (B)

Q39.

Solution

Concept:

Watershed management refers to the efficient management and conservation of surface and groundwater resources within a geographical unit known as a watershed. It is a holistic approach to land and water use.

Solution:

1. A watershed is a basin-like landform defined by highpoints and ridgelines that descend into lower elevations and stream valleys. 2. The primary aim of watershed management in India is to prevent surface runoff and enhance the infiltration of water into the soil to recharge groundwater. 3. It involves various methods like percolation tanks, check dams, and contour bunding. Programs like 'Haryali', 'Neeru-Meeru' (Andhra Pradesh), and 'Arvary Pani Sansad' (Alwar, Rajasthan) are successful examples. 4. While it may indirectly support minor irrigation, its main goal is not building large dams or connecting rivers (which are macro-level engineering projects). 5. It emphasizes community participation and the sustainable use of natural resources to ensure long-term water security for drinking and local agriculture.

Final Answer: Conservation of surface and groundwater resources to prevent runoff.

Answer: (B)

Q40.

Solution

Concept:

Understanding the drainage system of India requires a clear mental map of the major river basins and their geographical orientation. The East Coast of India is characterized by large deltas formed by east-flowing rivers.

Solution:

1. When traveling from Chennai (South) to Kolkata (North) along the Eastern Coast, you move across the Bay of Bengal littoral. 2. You would cross the deltas of the major east-flowing rivers in the following order: The Kaveri delta, the Krishna delta, the Godavari delta, and finally the Mahanadi delta in Odisha. 3. The Narmada River, however, is a west-flowing river that flows through a rift valley between the Vindhya and Satpura ranges. 4. The Narmada empties into the Arabian Sea on the West Coast, forming an estuary rather than a delta. 5. Therefore, it is geographically impossible to encounter the Narmada delta while traveling along the eastern coast of India.

Final Answer: Narmada Delta

Answer: (D)

Q41.

Solution

Concept:

Cyberspace is a contemporary geographical concept that refers to the virtual world of computer networks. Unlike physical space, which is made of land and water, cyberspace is made of digital signals and data.

Solution:

1. Cyberspace is the "electronic digital world" for communicating or accessing information over computer networks. 2. It allows for the transmission of information and ideas across the globe almost instantaneously. 3. The key characteristic of cyberspace is that it enables "interaction without physical movement." Users can conduct business, attend classes, or socialize without leaving their physical location. 4. While it relies on physical infrastructure like wires, computers, and satellites, the "space" itself where the communication happens is virtual. 5. Therefore, it is not merely the hardware or a storage room, but the functional digital environment.

Final Answer: An electronic digital world for communicating without physical movement.

Answer: (B)

Q42.

Solution

Concept:

The expansion of the Internet is one of the most significant technological shifts in the history of human communication, characterized by an extremely rapid rate of adoption worldwide.

Solution:

1. In geographical and sociological studies, the growth of the internet is frequently cited as being "unprecedented." 2. This means that no other technology—including the printing press, radio, or television—has spread across the global population as quickly as the internet. 3. Within just a few decades, it moved from being a specialized military and academic tool to a basic necessity for billions of people. 4. While there is a "digital divide," the internet has reached every continent and is growing rapidly even in developing regions. 5. Its growth is not slow or declining; it continues to accelerate with the integration of mobile technology.

Final Answer: Unprecedented in human history.

Answer: (B)

Q43.

Solution

Concept:

Tracking global internet usage statistics helps geographers understand the pace of globalization and the reduction of the "digital divide" over time.

Solution:

1. At the turn of the millennium (year 2000), internet users were numbered in the low hundreds of millions. 2. However, the decade between 2000 and 2010 saw an explosion in connectivity due to the expansion of broadband and cheaper hardware. 3. By the year 2010, the global internet population had officially surpassed the **2 Billion** mark. 4. This milestone represented roughly 305. Today, that number has more than doubled again, but the 2 billion mark in 2010 was a major historical benchmark in the history of the digital age.

Final Answer: Over 2 Billion.

Answer: (C)

Q44.

Solution

Concept:

The spatial distribution of internet users is shifting. Initially concentrated in the "Global North," the center of gravity for the internet is moving toward emerging economies.

Solution:

1. In the early days of the internet (1990s), the majority of users were in developed countries like the USA, UK, and Japan. 2. Recently, there has been a massive shift in usage **from developed to developing countries**. 3. This is driven by large populations in countries like India, China, and Brazil gaining access to the web, primarily through affordable smartphones. 4. This shift means that the majority of the world's "netizens" (internet citizens) now live in developing nations. 5. This has profound implications for global trade, culture, and the types of content being created in cyberspace.

Final Answer: From developed to developing countries.

Answer: (C)

Q45.

Solution

Concept:

Geographers categorize different types of networks. The World Wide Web (www) is the most recognizable component of the broader digital infrastructure.

Solution:

1. The World Wide Web is an information system where documents and other web resources are identified by URLs and interlinked by hypertext. 2. It is the primary "interface" through which people interact with **Cyberspace**. 3. While people often use the terms "Internet" and "Web" interchangeably, the Web is actually a service that runs *on* the internet. 4. It is part of the "quaternary" (knowledge-based) sector of the economy but geographically exists within the virtual domain of cyberspace. 5. It is the opposite of a physical movement system, as it allows information to travel while the person stays in one place.

Final Answer: Cyberspace.

Answer: (C)

Q46.

Solution

Concept:

While many rivers in India face pollution challenges, the two most iconic and significantly degraded river systems due to urban and industrial discharge are the Ganga and the Yamuna.

Solution:

1. The **Ganga** and **Yamuna** are the most polluted rivers in India, particularly as they flow through the densely populated Northern Plains. 2. The Yamuna is considered nearly "biologically dead" in the stretch between Delhi and Etawah due to the massive inflow of untreated sewage. 3. The Ganga faces severe pollution from tanneries in Kanpur, chemical industries, and domestic waste from major pilgrimage cities. 4. These rivers are specifically identified in geographical texts as the primary targets of major cleaning missions like 'Namami Gange'. 5. Other rivers like the Narmada or Brahmaputra, while facing local issues, have not reached the critical pollution levels seen in the Ganga-Yamuna belt.

Final Answer: Ganga and Yamuna.

Answer: (B)

Q47.

Solution

Concept:

Pollutants are categorized by their source. While domestic waste contributes organic matter, the more dangerous "persistent" pollutants like heavy metals come from specialized processes.

Solution:

1. **Industrial units** are the primary contributors of heavy metals such as mercury, lead, arsenic, and cadmium into water bodies. 2. Industries like electroplating, leather tanning, chemical manufacturing, and metal smelting release these toxins as part of their effluents. 3. Unlike organic waste from domestic sewage, heavy metals do not decompose; they stay in the water and enter the food chain (bioaccumulation). 4. Agricultural runoff mostly contributes chemicals like fertilizers (nitrates), and natural weathering contributes minerals, but not concentrated industrial toxins. 5. Therefore, the presence of toxic chemical "cocktails" in rivers is a direct indicator of unregulated industrial discharge.

Final Answer: Industrial units.

Answer: (C)

Q48.

Solution

Concept:

The Central Pollution Control Board (CPCB) is a statutory organization established in 1974 under the Water (Prevention and Control of Pollution) Act. It serves as the apex body for environmental monitoring.

Solution:

1. The primary role of the CPCB is to **monitor the water quality** of rivers and other water bodies across the country. 2. It maintains a vast network of monitoring stations that check parameters like Dissolved Oxygen (DO), Biochemical Oxygen Demand (BOD), and coliform counts. 3. It also sets the "standards" for air and water quality that industries and municipalities must follow. 4. The CPCB provides technical services to the Ministry of Environment, Forest and Climate Change. 5. It does not handle physical engineering tasks like building dams or managing irrigation; its focus is strictly on pollution control and data collection.

Final Answer: To monitor the water quality of rivers.

Answer: (B)

Q49.

Solution

Concept:

Agricultural runoff refers to the water from rain or irrigation that flows over farmland and eventually enters rivers or lakes, carrying various farming chemicals with it.

Solution:

1. Modern intensive agriculture relies heavily on chemical fertilizers to increase crop yields. 2. The two most common components of these fertilizers are **Nitrates and Phosphates**. 3. When it rains, the excess fertilizer that the plants haven't absorbed is washed into nearby water bodies. 4. These nutrients lead to a process called "Eutrophication," where algae grow excessively (algal bloom), depleting the oxygen in the water and killing fish. 5. While organic waste (bacteria) comes from animal farming, the specific chemical signature of crop-based runoff is nitrates and phosphates.

Final Answer: Nitrates and phosphates.

Answer: (B)

Q50.

Solution

Concept:

Environmental governance in India operates through a federal structure, where a central body coordinates with state-level counterparts.

Solution:

1. The **CPCB (Central Pollution Control Board)** operates at the national level, formulating policies and standards. 2. The **SPCBs (State Pollution Control Boards)** operate at the state level, implementing those standards and monitoring local industries. 3. Together, they form the regulatory backbone that grants "No Objection Certificates" (NOCs) to industries and monitors compliance with environmental laws. 4. The Ministry of Agriculture or the Meteorological Department handle different domains (farming and weather), not pollution regulation. 5. This dual-layered board system ensures that both national interests and regional environmental issues are addressed.

Final Answer: CPCB and SPCBs.

Answer: (B)

Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	C	2	D	3	B	4	B	5	B
6	A	7	B	8	C	9	B	10	C
11	B	12	C	13	C	14	B	15	B
16	B	17	C	18	C	19	A	20	C
21	A	22	B	23	B	24	B	25	B
26	B	27	B	28	D	29	C	30	A
31	A	32	B	33	A	34	B	35	B
36	D	37	C	38	B	39	B	40	D
41	B	42	B	43	C	44	C	45	C
46	B	47	C	48	B	49	B	50	B