

CUET-UG Geography Sample Paper-11

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. According to the 2011 Census of India, the state of _____ has the highest proportion of urban population, whereas the state of _____ recorded the highest decadal growth rate of urban population between 2001-2011.

- (A) Maharashtra; Tamil Nadu
- (B) Goa; Sikkim
- (C) Goa; Bihar
- (D) Tamil Nadu; Kerala

Q2. Which of the following describes the most accurate functional relationship in the 'Rank-Size Rule' when applied to a country where the largest city has 12 million people and the fourth largest city has 3 million people?

- (A) The urban hierarchy is primate-dominated.
- (B) The distribution follows a perfect log-normal pattern.
- (C) The second largest city must have exactly 8 million people.
- (D) The region lacks a defined Central Business District.

Q3. Match the High-Tech Industrial Hubs in List I with their specific geographic specializations in List II:



List I	Hub	List II	Specialization
(i)	Silicon Forest	(1)	Bengaluru, India
(ii)	Silicon Glen	(2)	Scotland, UK
(iii)	Silicon Island	(3)	Kyushu, Japan
(iv)	Silicon Plateau	(4)	Portland, USA

- (A) i-4, ii-2, iii-3, iv-1
 (B) i-1, ii-2, iii-3, iv-4
 (C) i-4, ii-3, iii-2, iv-1
 (D) i-2, ii-4, iii-1, iv-3

Q4. Assertion (A): In the 'Ageing of Population' phase, the demographic pyramid of a country develops a narrow base and a broadening top. **Reason (R):** This phenomenon is primarily driven by a simultaneous increase in birth rates and a decline in life expectancy due to medical advancements.

- (A) Both (A) and (R) are true and (R) is the correct explanation of (A).
 (B) Both (A) and (R) are true but (R) is not the correct explanation of (A).
 (C) (A) is true but (R) is false.
 (D) (A) is false but (R) is true.

Q5. The 'Digital Divide' in the context of international trade and communication is most accurately reflected by which of the following metrics?

- (A) The difference in the number of landline connections between urban and rural areas.
 (B) The disparity in the ability of citizens to access and use Information and Communication Technology (ICT).
 (C) The total volume of software exports from developing nations.
 (D) The physical distance between global submarine cable landing stations.



- Q6.** In the context of 'Human Activities', why is the Quinary sector considered distinct from the Quaternary sector?
- (A) It involves the physical processing of raw materials.
 - (B) It focuses on the interpretation of existing data rather than the creation of new data.
 - (C) It involves high-level decision-making and the creation of new technologies and policies.
 - (D) It is strictly limited to the extraction of non-renewable resources.
- Q7.** Identify the correct sequence of the 'Demographic Transition' stages for a society transitioning from an agrarian economy to an industrial, urbanized society:
- (A) High fertility/High mortality → Low fertility/Low mortality → High fertility/Low mortality
 - (B) High fertility/High mortality → High fertility/Low mortality → Low fertility/Low mortality
 - (C) Low fertility/Low mortality → High fertility/Low mortality → High fertility/High mortality
 - (D) High fertility/Low mortality → High fertility/High mortality → Low fertility/Low mortality
- Q8.** Which of the following 'Push Factors' is most likely to cause 'Distress Migration' in the dryland agricultural regions of India?
- (A) Proximity to metropolitan leisure centers.
 - (B) Availability of subsidized high-yield variety seeds.
 - (C) Frequent crop failure due to erratic monsoons and lack of irrigation.
 - (D) The expansion of quaternary research centers in rural blocks.
- Q9.** The 'North-South' divide in the world economy refers to the socio-economic and political division between:
- (A) The Northern Hemisphere and the Southern Hemisphere geographically.



- (B) Developed nations (Global North) and developing nations (Global South).
- (C) Landlocked countries and coastal countries.
- (D) Oil-exporting nations and oil-importing nations.

Q10. Which type of 'Rural Settlement Pattern' is most likely to develop in a fertile plain where several metalled roads converge at a single point?

- (A) Linear Pattern
- (B) Star-like Pattern
- (C) Circular Pattern
- (D) Dispersed Pattern

Q11. The 'National Waterway 4' (NW-4) in India primarily utilizes which of the following stretches?

- (A) The Ganga-Bhagirathi-Hooghly river system.
- (B) The Sadiya-Dhubri stretch of the Brahmaputra river.
- (C) The Godavari and Krishna rivers along with the Kakinada-Puducherry canals.
- (D) The West Coast Canal in Kerala including the Udyogmandal canal.

Q12. The 'Brundtland Commission' (1987) introduced a concept that became a cornerstone of modern Geography. This concept is:

- (A) Environmental Determinism
- (B) Sustainable Development
- (C) Spatial Organization
- (D) Areal Differentiation

Q13. Under the 'Functional Classification of Towns', which of the following is an example of a 'Garrison Town' in India?

- (A) Varanasi
- (B) Jamshedpur



- (C) Mhow
- (D) Kandla

Q14. Which of the following minerals is primarily associated with the 'Koraput' district of Odisha, representing one of India's largest deposits?

- (A) Copper
- (B) Mica
- (C) Bauxite
- (D) Gypsum

Q15. The concept of 'Gross National Happiness' (GNH) as a measure of a country's progress was officially pioneered by which nation?

- (A) Norway
- (B) Bhutan
- (C) Switzerland
- (D) New Zealand

Q16. On a world map highlighting major sea routes, a ship traveling from Yokohama (Japan) to Rotterdam (Netherlands) via the shortest existing maritime route would pass through which of the following sequences of water bodies?

- (A) East China Sea → Strait of Malacca → Bab-el-Mandeb → Suez Canal → Strait of Gibraltar
- (B) Sea of Japan → Panama Canal → Caribbean Sea → English Channel
- (C) South China Sea → Sunda Strait → Cape of Good Hope → Bay of Biscay
- (D) Yellow Sea → Strait of Hormuz → Red Sea → Bosphorus Strait

Q17. Arrange the following states of India in descending order of their 'Physiological Density' as per Census 2011 data: (i) Bihar (ii) West Bengal (iii) Kerala (iv) Uttar Pradesh

- (A) (i) > (ii) > (iv) > (iii)



- (B) (ii) > (i) > (iii) > (iv)
- (C) (iii) > (ii) > (i) > (iv)
- (D) (i) > (iii) > (ii) > (iv)

Q18. Statement I: The 'Golden Quadrilateral' superhighway project connects the four major metropolitan cities of India: Delhi, Mumbai, Chennai, and Kolkata.

Statement II: The North-South corridor of this project aims to connect Srinagar in Jammu and Kashmir with Kanyakumari in Tamil Nadu via a 4,076 km long road network.

- (A) Both Statement I and Statement II are correct.
- (B) Both Statement I and Statement II are incorrect.
- (C) Statement I is correct but Statement II is incorrect.
- (D) Statement I is incorrect but Statement II is correct.

Q19. In Von Thunen's Model of Agricultural Land Use, which of the following factors is the primary determinant of the width of each concentric zone?

- (A) The perishability of the product and the cost of transportation per unit distance.
- (B) The total labor force available in the central city.
- (C) The presence of a navigable river cutting through the isolated state.
- (D) The political boundaries between different tribal settlements.

Q20. Which of the following describes the 'Integrated Tribal Development Project' (ITDP) approach in the Bharmaur region of Himachal Pradesh?

- (A) It focused solely on the extraction of timber for downstream industries.
- (B) It prioritized the development of transport and communication to integrate the Gaddi community with the plains.
- (C) It encouraged the permanent migration of tribes to urban centers like Shimla.
- (D) It was a project funded by the WTO to promote international tourism.



- Q21.** The 'Great Lakes-St. Lawrence Seaway' serves as the most important inland waterway in North America. Which of the following pairs of lakes is connected by the Welland Canal?
- (A) Lake Superior and Lake Huron
 - (B) Lake Huron and Lake Michigan
 - (C) Lake Erie and Lake Ontario
 - (D) Lake Ontario and Lake Superior
- Q22.** Which specific type of 'Commercial Livestock Rearing' is characterized by the seasonal movement of herders with their livestock between low-altitude pastures in winter and high-altitude pastures in summer?
- (A) Ranching
 - (B) Transhumance
 - (C) Nomadic Herding
 - (D) Mixed Farming
- Q23.** The 'Ruhr Coalfield', once the industrial heart of Germany, has undergone a transformation known as 'Structural Change'. This shift is characterized by:
- (A) A total abandonment of the region due to environmental pollution.
 - (B) A transition from heavy coal and steel industries to service-based and high-tech industries.
 - (C) The conversion of all industrial sites into large-scale commercial dairy farms.
 - (D) Reliance on imported labor from the Global South to restart coal mines.
- Q24.** According to the 'World Trade Organization' (WTO) principles, 'Dumping' refers to which of the following trade practices?
- (A) Exporting a product at a price lower than the price normally charged in its own home market.
 - (B) The disposal of hazardous industrial waste in international waters.



- (C) The sale of agricultural surplus as humanitarian aid to underdeveloped nations.
- (D) A strategy where a country bans all imports to protect domestic industries.

Q25. Which of the following is a 'Footloose Industry'?

- (A) Iron and Steel Industry
- (B) Sugar Industry
- (C) Watch Manufacturing Industry
- (D) Cement Industry

Q26. The 'Konkan Railway' is considered an engineering marvel in India. One of its most significant challenges during construction was:

- (A) The lack of labor in the densely populated coastal plains.
- (B) The crossing of numerous rivers, backwaters, and the rugged terrain of the Western Ghats.
- (C) The extreme cold temperatures of the Sahyadri ranges.
- (D) Opposition from international environmental agencies regarding the displacement of lions.

Q27. Which 'Human Development' approach was initially proposed by the International Labour Organization (ILO)?

- (A) Income Approach
- (B) Welfare Approach
- (C) Basic Needs Approach
- (D) Capability Approach

Q28. In India, 'Critical Minerals' like Lithium, which are essential for the green energy transition, have recently been discovered in significant quantities in which region?

- (A) Reasi, Jammu and Kashmir



- (B) Kolar, Karnataka
- (C) Digboi, Assam
- (D) Jharia, Jharkhand

Q29. The term 'Satellite Towns' is best described as:

- (A) Towns located in outer space for future colonization.
- (B) Smaller municipalities that are adjacent to a major city and dependent on it for services.
- (C) Towns that rely exclusively on satellite technology for communication.
- (D) Industrial hubs that are completely self-sufficient and isolated from big cities.

Q30. The 'Neeranchal' National Watershed Project in India is primarily supported by which international organization?

- (A) UNESCO
- (B) World Bank
- (C) International Monetary Fund
- (D) World Economic Forum

Passage-Based Questions (31–35):

Read the following passage and answer the questions:

The 'Bharari' concept in the context of the Indian Himalayan region represents a shift toward decentralized water governance. While large-scale dams like the Tehri have often been criticized for their environmental and seismic risks, the rejuvenation of traditional 'Chal-Khals' (small percolation tanks) and 'Naulas' (stone-lined aquifers) offers a sustainable alternative. This 'Springshed Management' approach focuses on the hydrogeological mapping of mountain aquifers. In states like Uttarakhand and Sikkim, the drying up of perennial springs due to land-use changes and erratic rainfall has led to severe water stress, impacting both subsistence agriculture and the growing tertiary tourism sector.



- Q31.** The transition from large-scale dam projects toward 'Springshed Management' in the Himalayas primarily aligns with which geographical school of thought?
- (A) Environmental Determinism
 - (B) Stop-and-Go Determinism (Neo-Determinism)
 - (C) Radical Geography
 - (D) Quantitative Revolution
- Q32.** Why is the hydrogeological mapping of mountain aquifers considered a 'Quaternary' activity?
- (A) It involves the direct extraction of water from the earth.
 - (B) It is a manufacturing process to create water storage units.
 - (C) It involves high-level research, data collection, and specialized knowledge for resource management.
 - (D) It is a low-skilled manual service provided to rural communities.
- Q33.** Which of the following is an unintended consequence of land-use changes in the Himalayan region mentioned in the passage?
- (A) Increase in the discharge of perennial springs.
 - (B) Strengthening of the traditional 'Naula' system.
 - (C) Severe water stress affecting both primary and tertiary sectors.
 - (D) Total elimination of seismic risks in the region.
- Q34.** Traditional 'Chal-Khals' and 'Naulas' in the Himalayas are examples of:
- (A) Modern large-scale irrigation canals.
 - (B) Indigenous knowledge systems for water conservation.
 - (C) International water-sharing treaties.
 - (D) Exotic crop varieties introduced by the British.
- Q35.** According to the passage, what is the primary threat to the 'Springs' of the Himalayan states?



- (A) Excessive use of chemical fertilizers in the plains.
- (B) Land-use changes combined with erratic rainfall patterns.
- (C) The construction of the Golden Quadrilateral.
- (D) The decline of the Quinary sector in mountain regions.

Case Study-Based Questions (36–40):

Jhabua is a tribal-dominated district in Madhya Pradesh characterized by high rates of land degradation and poverty. Under the National Watershed Development Project for Rainfed Areas (NWDPR), the community implemented 'Common Property Resource' (CPR) management. They focused on 'social fencing'—a community-led ban on free grazing and uncontrolled tree felling. Through the 'Pani Roko Abhiyan', they constructed contour trenches and gully plugs. Consequently, the area under double-cropping increased, and the 'Push' factor of migration significantly weakened.

- Q36.** The 'Social Fencing' mentioned in the Jhabua case study is a strategy to protect which of the following?
- (A) Private agricultural land owned by big landlords.
 - (B) Common Property Resources (CPRs) used by the community.
 - (C) International borders from illegal trade.
 - (D) High-tech industrial parks from rural intrusion.
- Q37.** The construction of contour trenches and gully plugs in Jhabua is a technical intervention aimed at:
- (A) Increasing the speed of surface runoff to prevent floods.
 - (B) Enhancing soil moisture and recharging groundwater.
 - (C) Promoting the cultivation of water-intensive crops like Sugarcane.
 - (D) Clearing forests for the expansion of secondary industries.
- Q38.** What was the direct impact of the 'Pani Roko Abhiyan' on the agricultural pattern of Jhabua?



- (A) It led to a shift from double-cropping back to subsistence mono-cropping.
- (B) It resulted in an increase in the area under double-cropping.
- (C) It caused the total abandonment of agriculture in the district.
- (D) It made the district completely dependent on food imports from other states.

Q39. The weakening of the 'Push factor' of migration in Jhabua indicates:

- (A) That the urban areas have become less attractive for the youth.
- (B) That rural livelihoods have become more sustainable and profitable locally.
- (C) That the government has banned people from leaving the district.
- (D) That the transport system to the cities has collapsed.

Q40. Jhabua's success in watershed management is a classic example of which planning approach?

- (A) Top-down centralized planning.
- (B) Sectoral planning focusing only on industry.
- (C) Integrated community-based watershed management.
- (D) Export-oriented growth model.

Q41. The 'North Atlantic Sea Route' is often called the 'Big Trunk Route'. Which of the following is the primary reason for this nomenclature?

- (A) It connects two of the most industrially developed regions—North-Eastern USA and North-Western Europe.
- (B) It is the only route used for the transport of elephant tusks (ivory).
- (C) It is the longest maritime route in the world, encircling the entire globe.
- (D) It passes through the highest number of landlocked countries.

Q42. In the context of Indian population composition, the 'Working Age Population' is officially defined as the group belonging to the age bracket of:

- (A) 15 to 59 years



- (B) 18 to 60 years
- (C) 14 to 65 years
- (D) 21 to 58 years

Q43. The 'Cyber Space' or Internet is an example of which type of 'Geography' in the modern era?

- (A) Physical Geography
- (B) Intangible Geography of Electronic Networks
- (C) Deterministic Geography of Landforms
- (D) Biogeography of Marine Species

Q44. Which of the following ports in India was developed as a 'Satellite Port' to relieve the pressure on the Mumbai Port?

- (A) Kandla Port
- (B) Jawaharlal Nehru Port (Nhava Sheva)
- (C) Paradip Port
- (D) Mormugao Port

Q45. The 'Agro-forestry' model promotes the cultivation of:

- (A) Only timber-producing trees on large forest lands.
- (B) Trees along with agricultural crops on the same piece of land.
- (C) Aquatic plants in stagnant water bodies.
- (D) Only ornamental flowers for international export.

Q46. The 'Human Poverty Index' (HPI) differs from the 'Human Development Index' (HDI) because it:

- (A) Measures the progress a country has made in health and education.
- (B) Measures the shortfalls or lack of progress in human development.
- (C) Focuses only on the billionaire population of a nation.



(D) Is calculated based on the total military expenditure.

Q47. Which 'Railway Zone' in India has its headquarters in 'Hubballi'?

(A) South Western Railway

(B) South Eastern Railway

(C) Central Railway

(D) North Western Railway

Q48. The 'Indira Gandhi Canal' (Nahar) project has significantly changed the cropping pattern of Western Rajasthan. Which crop is now predominantly grown in this region?

(A) Jute

(B) Wheat and Cotton

(C) Coffee

(D) Rubber

Q49. Under the 'Classification of Industries based on Ownership', the 'Oil India Limited' (OIL) falls under which sector?

(A) Public Sector

(B) Private Sector

(C) Joint Sector

(D) Cooperative Sector

Q50. The 'Atmospheric Pollution' in urban areas of North India during winter is exacerbated by a phenomenon where cold air is trapped near the ground by a layer of warm air. This is called:

(A) Adiabatic Cooling

(B) Thermal Inversion

(C) Greenhouse Effect

(D) Orographic Rainfall



Detailed Solutions**Q1.****Solution****Concept:**

The 2011 Census of India provides critical data on urbanization. It distinguishes between the 'level of urbanization' (percentage of total population living in urban areas) and the 'growth rate' of the urban population.

Solution:

- (a) According to the 2011 Census, Goa is the most urbanized state in India with 62.17
- (b) While Tamil Nadu and Maharashtra have high urban populations, Goa remains at the top in terms of proportion.
- (c) In terms of decadal growth of urban population (2001-2011), Sikkim recorded a staggering growth rate of 153.4
- (d) This high growth in Sikkim is attributed to the reclassification of several rural areas as 'Census Towns' and 'Statutory Towns'.

Final Answer: The states are Goa and Sikkim.

Answer: (B)

Q2.**Solution****Concept:**

The 'Rank-Size Rule', formulated by G.K. Zipf, suggests that the population of the n^{th} ranked city should be $1/n$ the population of the largest city. This model represents a highly integrated and mature urban system.

Solution:

- (a) If the largest city (Rank 1) has 12 million people, according to the rule, the 4th largest city should have $12/4 = 3$ million people.
- (b) Since the data provided (12 million and 3 million) perfectly matches this ratio, the urban system follows a perfect log-normal pattern.
- (c) A 'Primate City' pattern would occur if the largest city was significantly larger than the rule predicts (e.g., if the largest was 12m and the 2nd was only 2m).
- (d) This rule implies a balanced distribution of services and functions across the urban hierarchy.

Final Answer: The distribution follows a perfect log-normal pattern.

Answer: (B)



Q3.

Solution**Concept:**

Global high-tech industry clusters, often called 'Technopolies' or 'Silicon hubs', are geographic concentrations of interconnected companies and institutions in a particular field, usually electronics, software, and biotechnology.

Solution:

- (a) 'Silicon Forest' is the nickname for the high-tech cluster in the Portland, Oregon metropolitan area (USA).
- (b) 'Silicon Glen' refers to the high-tech sector in the Central Belt of Scotland (UK).
- (c) 'Silicon Island' is the name given to Kyushu island in Japan due to its high concentration of semiconductor manufacturing.
- (d) 'Silicon Plateau' is the widely used term for Bengaluru, India, referring to its location on the Deccan Plateau and its status as a global IT hub.

Final Answer: The correct match is i-4, ii-2, iii-3, iv-1.

Answer: (A)

Q4.

Solution**Concept:**

'Ageing of Population' is a demographic trend where the median age of a population increases. This usually occurs in the later stages of the Demographic Transition Model (Stage IV and V).

Solution:

- (a) Assertion (A) is true: As birth rates decline, the 'base' of the population pyramid (children) narrows. As life expectancy increases, the 'top' (elderly) broadens.
- (b) Reason (R) is false: Ageing is driven by a *decrease* in birth rates (declining fertility) and an *increase* in life expectancy (not a decline).
- (c) When life expectancy increases, people live longer, thus increasing the proportion of the elderly population.
- (d) Therefore, while the assertion correctly describes the shape of the pyramid, the reason provided is factually incorrect regarding the drivers of that shape.

Final Answer: (A) is true but (R) is false.

Answer: (C)



Q5.

Solution**Concept:**

In the era of the knowledge economy, the 'Digital Divide' represents a major geographical and social challenge. It refers to the gap between those who have access to modern information technology and those who do not.

Solution:

- (a) The 'Digital Divide' is not just about the physical availability of hardware but also the skills and infrastructure required to use it effectively.
- (b) It exists at multiple levels: international (between developed and developing nations) and internal (between urban and rural areas or different socio-economic classes).
- (c) While landline connections (Option A) were an old metric, they do not encompass the modern internet and data-driven disparity.
- (d) The core of the concept is the disparity in access and usage of ICT, which impacts education, trade, and governance.

Final Answer: The disparity in the ability of citizens to access and use ICT.

Answer: (B)



Q6.

Solution**Concept:**

The Quaternary and Quinary sectors represent the advanced stages of the "Sectoral Shift" in modern economies. While the Quaternary sector is generally associated with information-based services (the "Knowledge Economy"), the Quinary sector is distinguished by the nature of its impact on society and the high level of authority involved in its activities.

Solution:

- (a) The Quaternary sector involves intellectual activities like research, development, and information processing. It is the "thinking" part of the economy but doesn't necessarily involve final executive power.
- (b) The Quinary sector represents the "highest level of decision-making." This includes top-tier government officials, CEOs of multinational corporations, and research scientists who create paradigm-shifting technologies.
- (c) Unlike the Quaternary sector, which might focus on managing existing information systems, Quinary activities are centered on the "interpretation" and "evaluation" of ideas to formulate new policies or global directions.
- (d) Therefore, the distinction lies in the weight of the decision-making and the creation of new frameworks rather than just the processing of data.

Final Answer: It involves high-level decision-making and the creation of new technologies and policies.

Answer: (C)



Q7.

Solution**Concept:**

The Demographic Transition Model (DTM) describes the historical shift from high birth and death rates to low birth and death rates as a country develops from a pre-industrial to an industrialized economic system. It is a fundamental concept in population geography used to predict future population trends.

Solution:

- (a) Stage I (High Stationary): Characterized by high fertility and high mortality. Population growth is slow because births and deaths roughly cancel each other out.
- (b) Stage II (Early Expanding): Improvements in healthcare and sanitation lead to a sharp decline in mortality, while fertility remains high. This results in a "population explosion."
- (c) Stage III (Late Expanding): Fertility starts to decline due to urbanization and better education, but the population still grows.
- (d) Stage IV (Low Stationary): Both fertility and mortality are low, leading to a stable or slowly growing population. This is the hallmark of an advanced industrial society.

Final Answer: High fertility/High mortality → High fertility/Low mortality → Low fertility/Low mortality.

Answer: (B)



Q8.

Solution**Concept:**

In migration studies, factors are classified into 'Push' (negative factors forcing people to leave an area) and 'Pull' (positive factors attracting people to an area). 'Distress Migration' specifically refers to movement driven by survival needs rather than voluntary economic advancement.

Solution:

- (a) Dryland agricultural regions in India are highly dependent on rainfall. When the monsoon is erratic, it leads to total crop failure and loss of livelihood for farmers.
- (b) This lack of resource security acts as a powerful 'Push Factor,' forcing families to migrate to cities in search of manual labor just to survive (Distress Migration).
- (c) Option A and D are 'Pull Factors' (or irrelevant to distress). Option B is a positive intervention that would typically reduce the need to migrate.
- (d) Therefore, the vulnerability of the primary sector to climatic variability is the root cause of this migration pattern.

Final Answer: Frequent crop failure due to erratic monsoons and lack of irrigation.

Answer: (C)

Q9.

Solution**Concept:**

The 'North-South Divide' is a socio-economic and political categorization that groups countries based on their level of development, industrialization, and wealth, rather than their strict location relative to the Equator.

Solution:

- (a) The "Global North" generally includes North America, Western Europe, and developed parts of East Asia (like Japan).
- (b) The "Global South" includes most of Africa, Latin America, and developing Asia.
- (c) This divide highlights the disparity in the distribution of resources, technology, and wealth. For instance, the Global North controls a disproportionate share of world trade despite having a smaller population.
- (d) Note that Australia and New Zealand are geographically in the South but are considered part of the "Global North" due to their high development levels.

Final Answer: Developed nations (Global North) and developing nations (Global South).

Answer: (B)



Q10.

Solution**Concept:**

The morphology of rural settlements is often dictated by the physical environment and the transport network. Geometric patterns emerge based on how houses are built relative to roads, rivers, or central points.

Solution:

- (a) A 'Linear Pattern' occurs along a single road or river.
- (b) A 'Circular Pattern' usually forms around a central pond or a defensive fort.
- (c) A 'Star-like Pattern' is created when several roads converge at a central point. Houses are built along all these roads, radiating outwards from the center like the points of a star.
- (d) This pattern is common in flat, fertile plains (like the Indo-Gangetic plain) where connectivity is high in all directions.

Final Answer: Star-like Pattern.

Answer: (B)

Q11.

Solution**Concept:**

The Inland Waterways Authority of India (IWAI) classifies specific river stretches and canal systems as National Waterways (NW) to promote fuel-efficient and environment-friendly cargo and passenger movement. National Waterway 4 is a critical artery for the industrial development of South India, connecting major river basins with coastal canal systems.

Solution:

- (a) National Waterway 4 (NW-4) is unique because it is not limited to a single river but integrates several water bodies across Andhra Pradesh, Tamil Nadu, and Puducherry.
- (b) It covers a total length of approximately 1,095 km, encompassing the Godavari river stretch (between Bhadrachalam and Rajahmundry) and the Krishna river stretch (between Wazirabad and Vijayawada).
- (c) Crucially, it also includes the Kakinada canal, the Eluru canal, the Commamur canal, and the Buckingham canal, which runs through Chennai and terminates at Puducherry.
- (d) While NW-1 is the Ganga and NW-2 is the Brahmaputra, NW-4 provides a vital logistics link for the movement of food grains, coal, and fertilizers in the southern peninsula.

Final Answer: The Godavari and Krishna rivers along with the Kakinada-Puducherry canals.

Answer: (C)



Q12.

Solution**Concept:**

The concept of Sustainable Development emerged as a response to the environmental degradation caused by rapid industrialization and resource depletion. The World Commission on Environment and Development (WCED), headed by Gro Harlem Brundtland, was pivotal in formalizing this geographic and economic philosophy.

Solution:

- (a) In 1987, the WCED published a landmark report titled "Our Common Future," often referred to as the Brundtland Report.
- (b) This report defined Sustainable Development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."
- (c) In Geography, this marked a shift away from 'Environmental Determinism' (nature controls man) and 'Possibilism' (man controls nature) toward a balanced approach that respects ecological limits.
- (d) This concept integrates three pillars: economic growth, social equity, and environmental protection, ensuring that the Earth's carrying capacity is not exceeded.

Final Answer: Sustainable Development.

Answer: (B)



Q13.

Solution**Concept:**

In Human Geography, towns are functionally classified based on their dominant economic activity or historical origin. 'Garrison Towns' or 'Cantonment Towns' are settlements established specifically for military purposes, housing troops, and providing administrative support for defense.

Solution:

- (a) Garrison towns usually have a distinct urban layout characterized by parade grounds, barracks, and low-density residential areas for military personnel.
- (b) Mhow (Military Headquarters of War) in Madhya Pradesh is a classic example of a garrison town established during the British era. Other examples include Ambala, Jalandhar, and Babina.
- (c) In contrast, Varanasi is a 'Religious/Cultural Town,' Jamshedpur is an 'Industrial Town,' and Kandla is a 'Transport/Port Town.'
- (d) These towns often maintain a separate administrative structure known as a Cantonment Board, which functions independently of the local municipal corporation.

Final Answer: Mhow.

Answer: (C)



Q14.

Solution**Concept:**

India is rich in metallic and non-metallic minerals, with specific geological belts concentrated in the Chhota Nagpur Plateau and the Eastern Ghats. Bauxite is the primary ore used in the production of aluminum, and its distribution is closely linked to laterite rocks in plateau regions.

Solution:

- (a) Odisha is the leading producer of Bauxite in India, accounting for more than half of the country's total production.
- (b) The Koraput district, specifically the Panchpatmali deposits, is home to one of the largest and most high-grade bauxite reserves in the world.
- (c) Bauxite formation occurs through the decomposition of a wide variety of rocks that are rich in aluminum silicates under tropical climatic conditions.
- (d) The availability of these minerals in Koraput has led to the establishment of major alumina refineries and aluminum smelters (like NALCO) in the state, boosting the regional economy.

Final Answer: Bauxite.

Answer: (C)

Q15.

Solution**Concept:**

In the study of Human Development, traditional economic indicators like GDP often fail to capture the holistic well-being of a population. The concept of Gross National Happiness (GNH) was introduced to prioritize spiritual, physical, and social health alongside material wealth.

Solution:

- (a) Bhutan is the first and only country in the world to officially measure progress through Gross National Happiness rather than Gross Domestic Product.
- (b) The concept was proposed by the fourth King of Bhutan, Jigme Singye Wangchuck, in the 1970s, emphasizing that "Happiness is more important than GDP."
- (c) GNH is based on four main pillars: sustainable and equitable socio-economic development, environmental conservation, preservation and promotion of culture, and good governance.
- (d) It encourages geographers and economists to look at development through the lens of qualitative human experience rather than just quantitative monetary output.

Final Answer: Bhutan.

Answer: (B)



Q16.

Solution**Concept:**

In Transportation Geography, the study of "Global Trade Routes" involves understanding the strategic bottlenecks and shortest paths between major economic hubs. The route from East Asia (Yokohama) to Western Europe (Rotterdam) is the most significant maritime trade artery in the world, often referred to as the "Mainline." This route relies on a series of critical "Chokepoints"—narrow channels that are essential for global energy and commodity security.

Solution:

- (a) A ship departing from Yokohama first traverses the East China Sea or South China Sea. To enter the Indian Ocean, it must pass through the Strait of Malacca, located between Malaysia and Indonesia.
- (b) Crossing the Indian Ocean, the vessel enters the Red Sea via the Bab-el-Mandeb strait. From the Red Sea, it enters the Mediterranean Sea through the Suez Canal, which eliminates the need to circumnavigate Africa.
- (c) To reach the Atlantic Ocean, the ship passes through the Strait of Gibraltar. Finally, it sails through the English Channel to reach Rotterdam, the largest port in Europe.
- (d) Option B is incorrect as the Panama Canal serves Trans-Pacific/Trans-Atlantic trade for the Americas. Option C involves the much longer route via the Cape of Good Hope.

Final Answer: East China Sea → Strait of Malacca → Bab-el-Mandeb → Suez Canal → Strait of Gibraltar.

Answer: (A)



Q17.

Solution**Concept:**

Physiological Density is a more refined measure of population pressure than Arithmetic Density. While Arithmetic Density is the total population divided by the total land area, Physiological Density is the total population divided by the 'Net Cultivated Area' (arable land). This metric is vital for understanding the carrying capacity of the land and the food security of a region, as it reflects how many people are supported by each unit of productive farmland.

Solution:

- (a) In India, states with high population and limited arable land exhibit high physiological density.
- (b) According to 2011 data, Bihar has one of the highest arithmetic densities, but due to its vast fertile plains, its physiological density is very high but often eclipsed by states with even less arable land per capita.
- (c) Kerala, despite having a lower arithmetic density than Bihar, has a very high physiological density because a significant portion of its land is covered by plantations, forests, and backwaters, leaving less 'Net Sown Area' for food crops relative to its population.
- (d) When looking at the ranking, Bihar typically leads in sheer pressure on land, followed by West Bengal. Kerala follows closely due to its specific land-use pattern, while Uttar Pradesh, despite having the largest population, has a massive net sown area in the Gangetic plain that balances the ratio.

Final Answer: (i) > (ii) > (iv) > (iii).

Answer: (A)



Q18.

Solution**Concept:**

The National Highways Development Project (NHDP) is India's largest ever highway project, aimed at upgrading, rehabilitating, and widening major highways to a higher standard. It is managed by the National Highways Authority of India (NHAI). The Golden Quadrilateral and the North-South and East-West Corridors are the flagship components of this massive infrastructure initiative designed to reduce the "friction of distance" between India's economic poles.

Solution:

- (a) Statement I is Correct: The Golden Quadrilateral (GQ) is a highway network connecting the four major industrial, agricultural, and cultural centers of India: Delhi (North), Mumbai (West), Chennai (South), and Kolkata (East), forming a quadrilateral.
- (b) Statement II is Correct: The North-South Corridor aims to connect Srinagar (JK) with Kanyakumari (Tamil Nadu). The East-West Corridor connects Silchar (Assam) with Porbandar (Gujarat).
- (c) The total length of the North-South and East-West corridors combined is approximately 7,142 km, with the North-South section being the longest road link in the country.
- (d) These projects have significantly boosted the movement of goods, especially perishable agricultural products, and have fostered regional integration by providing world-class road connectivity.

Final Answer: Both Statement I and Statement II are correct.

Answer: (A)



Q19.

Solution**Concept:**

Johann Heinrich von Thunen's Model of Agricultural Land Use (1826) was the first serious attempt to explain the spatial organization of agriculture. The model assumes an "Isolated State" with a single central market surrounded by a flat plain. The core logic is based on 'Economic Rent' or 'Location Rent'—the profit a farmer can make after subtracting production and transport costs from the market price.

Solution:

- (a) The primary variable in this model is the distance to the market. The model posits that the land use that yields the highest rent at a specific distance will occupy that zone.
- (b) Two major factors determine the width and order of the zones: the 'Perishability' of the product and the 'Transport Cost' per unit weight/distance.
- (c) For example, highly perishable goods like milk and vegetables must be produced in the first ring (nearest the city) because they spoil quickly and cost more to transport in fresh condition.
- (d) Heavier items like timber for fuel (in the 19th century) required the second ring because of the high cost of transporting weight, even if they weren't perishable. As distance increases, only low-transport-cost products like grain or low-value activities like ranching remain profitable.

Final Answer: The perishability of the product and the cost of transportation per unit distance.

Answer: (A)



Q20.

Solution**Concept:**

Regional Planning in India often targets "Socially and Economically Backward Areas." The Bharmaur region in Chamba district, Himachal Pradesh, is a mountainous area inhabited by the 'Gaddi' tribal community. Because of its harsh climate and isolation, it was designated for the 'Integrated Tribal Development Project' (ITDP) under the Fifth Five Year Plan to ensure equitable development.

Solution:

- (a) The ITDP in Bharmaur aimed at improving the quality of life of the Gaddis through a multi-sectoral approach.
- (b) A major priority was the development of infrastructure, specifically transport and communication. Roads were built to connect this high-altitude region with the plains of Kangra and the rest of the state.
- (c) This connectivity was crucial for the Gaddi community, who practice transhumance (seasonal migration with livestock). Improved roads allowed for better access to schools, healthcare, and markets for their wool and livestock products.
- (d) The project also focused on social sectors like education and clean drinking water, leading to a significant increase in the literacy rate and a reduction in the gender gap in education within the region.

Final Answer: It prioritized the development of transport and communication to integrate the Gaddi community with the plains.

Answer: (B)



Q21.

Solution**Concept:**

Inland waterways represent one of the most cost-effective and energy-efficient modes of transport for bulky and heavy goods. The Great Lakes and the St. Lawrence River together form a massive deep-draft waterway extending 3,700 kilometers into the heart of North America. This system is a classic example of "spatial integration" where natural water bodies are linked by man-made canals to bypass geographic obstacles like waterfalls and rapids.

Solution:

- (a) The Great Lakes system consists of five lakes: Superior, Michigan, Huron, Erie, and Ontario. While they are mostly interconnected, there are significant elevation differences between them.
- (b) The most famous obstacle is Niagara Falls, located between Lake Erie and Lake Ontario. To allow ships to bypass the 51-meter drop of the falls, the Welland Canal was constructed.
- (c) The Welland Canal consists of a series of eight locks that lift or lower ships, enabling them to move from the lower elevation of Lake Ontario to the higher elevation of Lake Erie.
- (d) Other canals in the system include the Soo Canals (Sault Ste. Marie), which connect Lake Superior and Lake Huron by bypassing the St. Marys Rapids.
- (e) This infrastructure is vital for the movement of iron ore from the Mesabi Range and grain from the Prairies to the Atlantic ports.

Final Answer: Lake Erie and Lake Ontario.

Answer: (C)



Q22.

Solution**Concept:**

Population movement in response to seasonal changes is a significant theme in Human Geography. This practice, known as Transhumance, is a form of pastoralism or nomadism where livestock is moved between fixed summer and winter pastures. It is deeply rooted in the ecological necessity of following the "green wave" of vegetation growth across different altitudes or latitudes.

Solution:

- (a) Transhumance is distinct from nomadic herding because the herders usually have a permanent home base, often in the valleys.
- (b) In mountainous regions like the Himalayas or the Alps, herders move to high-altitude Alpine pastures (called 'Margs' in Kashmir or 'Bugyals' in Uttarakhand) during the summer when the snow melts and grass grows.
- (c) In winter, as the high altitudes become covered in snow and temperatures drop, they descend to the warmer low-altitude valleys or the Shivalik plains.
- (d) In India, communities like the Gujjars, Bakarwals, Gaddis, and Bhotiyas are well-known for this practice.
- (e) This movement is a sophisticated adaptation to the vertical zonation of climate and vegetation, ensuring a year-round food supply for the animals without overgrazing a single area.

Final Answer: Transhumance.

Answer: (B)



Q23.

Solution**Concept:**

The "Ruhr Region" of Germany provides a quintessential case study of the evolution of an industrial landscape. Historically known as a "Smoke-stack Industry" hub, it was built on the proximity of high-quality coal and iron ore. However, in the late 20th century, global competition and environmental concerns led to the decline of traditional heavy manufacturing, forcing a radical "Structural Change."

Solution:

- (a) For over a century, the Ruhr was dominated by coal mining and steel production. As coal mines became deeper and more expensive to operate, and as environmental regulations tightened, the region faced an economic crisis.
- (b) Instead of becoming a "Rust Belt" of abandoned factories, the region underwent a planned transition. This is often called the "New Ruhr" phenomenon.
- (c) Large-scale industrial sites were not demolished; instead, they were repurposed into technology parks, cultural centers, and museums (e.g., the Zollverein Coal Mine Industrial Complex).
- (d) The economy shifted toward the Tertiary and Quaternary sectors, focusing on specialized services, biotechnology, and green energy research.
- (e) This transformation highlights the resilience of urban-industrial regions when supported by innovative planning and a shift toward the knowledge economy.

Final Answer: A transition from heavy coal and steel industries to service-based and high-tech industries.

Answer: (B)



Q24.

Solution**Concept:**

The World Trade Organization (WTO) sets the legal framework for international trade, aiming to ensure that trade flows as smoothly, predictably, and freely as possible. One of the major "Unfair Trade Practices" it monitors is Dumping. This practice is often viewed as a form of predatory pricing designed to drive out domestic competitors in the importing country.

Solution:

- (a) Dumping occurs when a company exports a product at a price that is lower than the price it normally charges in its own home market (the "normal value").
- (b) It can also be defined as selling products abroad at a price below the cost of production.
- (c) The primary motive for dumping is often to capture a large share of the foreign market by making domestic products uncompetitive.
- (d) Under WTO rules, if an importing country can prove that dumping is occurring and that it is causing "material injury" to its domestic industry, it can impose "Anti-Dumping Duties" to level the playing field.
- (e) This is a crucial concept in Geographical Trade studies as it affects the balance of trade and the survival of local industrial clusters in developing nations.

Final Answer: Exporting a product at a price lower than the price normally charged in its own home market.

Answer: (A)



Q25.

Solution**Concept:**

In Industrial Geography, the "Location of Industries" is traditionally determined by factors like proximity to raw materials, power, and markets. However, certain modern industries do not have a strong preference for a specific location based on weight-losing raw materials. These are termed "Footloose Industries."

Solution:

- (a) Footloose industries are not tied to any particular location because their raw materials and finished products are typically very light and small in volume.
- (b) Unlike the Iron and Steel or Cement industries, which must be near bulky raw materials to reduce transport costs, footloose industries can be located anywhere that has good transport and communication links.
- (c) These industries usually depend on component parts that can be sourced from anywhere. They are often "non-polluting" and rely on a highly skilled labor force rather than a large volume of land or heavy machinery.
- (d) Examples include electronics assembly, diamond cutting, and watch manufacturing. In these cases, the value is added through high-tech precision rather than processing bulk matter.
- (e) They represent the shift toward the "Information Age" where accessibility to a global network is more important than accessibility to a coal mine or a forest.

Final Answer: Watch Manufacturing Industry.

Answer: (C)



Q26.

Solution**Concept:**

The Konkan Railway represents a landmark achievement in Indian civil engineering, spanning 760 km along the western coast of India. It was designed to bridge the gap between Mumbai and Mangaluru, cutting through the formidable terrain of the Western Ghats. Before its completion in 1998, the region was considered inaccessible for rail transport due to its unique physical geography, which includes steep escarpments, dense forests, and high-intensity rainfall zones.

Solution:

- (a) The construction of the Konkan Railway was an immense technical challenge because the track had to traverse a landscape bisected by numerous fast-flowing rivers and deep valleys.
- (b) To maintain a relatively level track in such rugged terrain, engineers had to construct over 2,000 bridges and 91 tunnels.
- (c) Among these, the Panval River Viaduct became famous as one of the tallest bridges in Asia, and the Karbude Tunnel remained the longest in India for many years.
- (d) Beyond the physical mountains, the soft, marshy soil in coastal stretches and the frequent landslides during the monsoon season required innovative soil stabilization techniques.
- (e) The project is a prime example of overcoming environmental "friction of distance" to foster regional economic development and connectivity.

Final Answer: The crossing of numerous rivers, backwaters, and the rugged terrain of the Western Ghats.

Answer: (B)



Q27.

Solution**Concept:**

The Human Development Index (HDI) was built on the foundation of several theoretical approaches that sought to move beyond purely economic metrics. Among these, the "Basic Needs Approach" is a fundamental pillar that emphasizes the minimum resources necessary for long-term physical well-being. This approach shifts the focus from "what people have" (income) to "what people can do and be" with essential services.

Solution:

- (a) The Basic Needs Approach was specifically championed by the International Labour Organization (ILO) in the mid-1970s.
- (b) It identifies six basic needs that are essential for human survival and dignity: health, education, food, water supply, sanitation, and housing.
- (c) This approach argues that the priority of development should be to ensure that every individual has access to these six basic requirements, regardless of their total income level.
- (d) By focusing on these tangible services, the ILO aimed to address absolute poverty more directly than traditional growth-oriented models.
- (e) While the "Capability Approach" (associated with Amartya Sen) eventually became the core of the UNDP's HDI, the Basic Needs Approach provided the initial groundwork for multi-dimensional development analysis.

Final Answer: Basic Needs Approach.

Answer: (C)



Q28.

Solution**Concept:**

In the context of the global "Green Energy Transition," critical minerals like Lithium are often called the "New Oil" or "White Gold." They are indispensable for manufacturing high-capacity batteries for Electric Vehicles (EVs) and renewable energy storage. Geographically, India has traditionally been import-dependent for these minerals, making the discovery of domestic reserves a matter of significant strategic and economic importance.

Solution:

- (a) In early 2023, the Geological Survey of India (GSI) announced a massive discovery of Lithium reserves in the Salal-Haimana area of the Reasi district in Jammu and Kashmir.
- (b) The inferred resources are estimated at approximately 5.9 million tonnes, which could potentially propel India into a leading position in the global battery supply chain.
- (c) Historically, minerals like Coal were found in Jharia (Jharkhand), Gold in Kolar (Karnataka), and Oil in Digboi (Assam). Lithium represents a new era of mineral exploration in the Himalayas.
- (d) Extracting lithium from hard-rock deposits in such an ecologically sensitive and geologically young mountain range presents significant environmental and technical challenges.
- (e) This discovery is central to India's "Atmanirbhar Bharat" (Self-Reliant India) mission in the energy sector.

Final Answer: Reasi, Jammu and Kashmir.

Answer: (A)



Q29.

Solution**Concept:**

Urban sprawl and the growth of metropolitan regions often lead to the development of secondary urban centers. A "Satellite Town" is a specialized urban planning concept designed to relieve the pressure on a central "Mother City." While they are geographically distinct, they maintain a symbiotic relationship with the core city, often serving as residential or industrial relief valves.

Solution:

- (a) A satellite town is a smaller municipality that is located near a major city but is physically separated from it by a green belt or rural land.
- (b) Unlike a "suburb," which is just an extension of the city, a satellite town ideally has its own local government and some degree of self-sufficiency in terms of employment and services.
- (c) However, they are fundamentally dependent on the major city for specialized services, high-end commerce, and major transport links (like international airports).
- (d) In India, examples include Gurugram and Noida acting as satellite towns to Delhi, or Navi Mumbai acting as a satellite to Mumbai.
- (e) These towns help in "decongesting" the main city by providing planned housing and industrial spaces while still allowing residents to access the parent city's economic opportunities.

Final Answer: Smaller municipalities that are adjacent to a major city and dependent on it for services.

Answer: (B)



Q30.

Solution**Concept:**

Watershed management is a geographic approach to resource conservation that treats a drainage basin as a unit for planning. In India, where rain-fed agriculture is dominant, projects like "Neeranchal" aim to improve the productivity of land and water. This involves a combination of traditional wisdom (like check dams) and modern technology (like satellite mapping) to ensure sustainable rural livelihoods.

Solution:

- (a) The Neeranchal National Watershed Project is a World Bank-assisted program designed to support the Integrated Watershed Management Programme (IWMP).
- (b) Launched to strengthen the technical and managerial capacity of watershed development in India, it focuses on states like Andhra Pradesh, Chhattisgarh, Gujarat, and Odisha.
- (c) The project emphasizes "Climate-Smart Agriculture," helping farmers adapt to the variability of the monsoon through better soil and water conservation techniques.
- (d) By utilizing World Bank funding and international expertise, the project seeks to move beyond physical infrastructure to focus on the socio-economic outcomes for small and marginal farmers.
- (e) This partnership highlights the global nature of environmental challenges, where international financial institutions support national environmental sustainability goals.

Final Answer: World Bank.

Answer: (B)



Q31.

Solution**Concept:**

The management of natural resources in sensitive ecosystems requires a philosophical balance between human needs and environmental limits. In Geography, this balance is often articulated through different schools of thought. While early theories suggested nature dictates human action (Determinism) or humans have infinite choices (Possibilism), modern sustainable management often follows a "middle path" that recognizes the constraints of the environment while utilizing human ingenuity to adapt.

Solution:

- (a) 'Springshed Management' involves understanding the natural hydrogeological limits of mountain aquifers (environmental constraints) and using specialized knowledge to rejuvenate them (human agency).
- (b) This approach aligns with 'Neo-Determinism' (Stop-and-Go Determinism), a concept introduced by Griffith Taylor.
- (c) Neo-determinism suggests that while humans can accelerate, slow down, or stop the pace of development, they cannot go against the "red lights" of nature without causing environmental disasters.
- (d) By moving away from massive, disruptive dams toward small-scale, nature-based solutions like 'Chal-Khals,' planners are essentially "listening" to the mountain's ecological signals while still seeking development.

Final Answer: Stop-and-Go Determinism (Neo-Determinism).

Answer: (B)



Q32.

Solution**Concept:**

Economies are structured into different sectors based on the nature of the activities performed. As an economy advances, it shifts from the physical extraction of goods (Primary) to the production of goods (Secondary), then to services (Tertiary), and finally to information-based and high-level intellectual activities. The Quaternary sector represents the "Knowledge-based" component of the economy, where value is generated through cognitive skills and analysis.

Solution:

- (a) Hydrogeological mapping is not the act of digging a well (Primary) or building a tank (Secondary). It is the scientific study of the distribution and movement of groundwater in soil and rocks.
- (b) This activity requires specialized scientific research, data collection using GIS/Remote Sensing, and expert analysis to formulate management policies.
- (c) Because the output of this activity is "information" and "knowledge" used to improve the efficiency of other sectors, it is classified as Quaternary.
- (d) Such activities are typical of a modern economy where scientific data becomes a critical resource for sustainable development and environmental risk mitigation.

Final Answer: It involves high-level research, data collection, and specialized knowledge for resource management.

Answer: (C)



Q33.

Solution**Concept:**

In Physical and Human Geography, land-use changes—such as deforestation for road construction or urban expansion—have cascading effects on the hydrological cycle. In mountain regions, the 'Spring' (Dhara or Naula) is the primary source of water for the local population. When the recharge zones of these springs are paved over or deforested, the "link" between rainfall and groundwater is broken.

Solution:

- (a) The passage explicitly states that erratic rainfall and land-use changes have led to the drying up of perennial (year-round) springs.
- (b) This has created "severe water stress," which creates a negative feedback loop for the local economy.
- (c) It impacts the 'Primary Sector' (subsistence agriculture) because farmers no longer have water for crops, and the 'Tertiary Sector' (tourism) because hotels and tourists in mountain resorts require reliable water supplies.
- (d) This illustrates the concept of 'Environmental Vulnerability,' where human-induced changes make a region less resilient to climatic variability.

Final Answer: Severe water stress affecting both primary and tertiary sectors.

Answer: (C)



Q34.

Solution**Concept:**

Cultural Geography studies how human groups interact with their environment over centuries. Indigenous knowledge systems often provide sophisticated, low-cost solutions for resource management that are perfectly adapted to the local topography and climate. In the Himalayas, these systems were designed to capture rainwater and seepage slowly, ensuring water availability even during the dry summer months.

Solution:

- (a) 'Chal-Khals' are small, hand-dug ponds located on ridge-tops that collect rainwater and allow it to percolate into the ground to recharge downstream springs.
- (b) 'Naulas' are stone-lined structures built around natural aquifers to collect seepage and protect the water from contamination.
- (c) These are not modern engineering projects but 'Traditional Knowledge Systems' passed down through generations.
- (d) Rejuvenating these structures is a key part of "Ethno-hydrology," which combines traditional wisdom with modern science to solve modern environmental crises.

Final Answer: Indigenous knowledge systems for water conservation.

Answer: (B)



Q35.

Solution**Concept:**

Environmental degradation is rarely caused by a single factor but is usually the result of multiple, overlapping pressures. In the context of the Himalayas, the mountains are experiencing both local pressures (internal land-use changes) and global pressures (climatic shifts leading to erratic rainfall).

Solution:

- (a) The passage identifies two main drivers for the drying up of springs: 'land-use changes' and 'erratic rainfall.'
- (b) Land-use changes include the conversion of forests to agricultural land or built-up areas, which reduces the soil's ability to absorb water.
- (c) Erratic rainfall means that even if it rains, the water comes in short, intense bursts that run off the surface quickly instead of soaking into the aquifers.
- (d) Together, these factors destroy the "perennial" nature of the springs, making them seasonal or making them disappear entirely, which is the primary threat mentioned.

Final Answer: Land-use changes combined with erratic rainfall patterns.

Answer: (B)



Q36.

Solution**Concept:**

Common Property Resources (CPRs) are natural resources accessible to all members of a community, where no single individual has exclusive ownership rights. In tribal and rural economies like Jhabua, CPRs include community forests, grazing lands, and water bodies. 'Social Fencing' is a socio-ecological governance mechanism where the community collectively agrees to restrict their own behavior—such as stopping free grazing—to allow nature to regenerate without the need for physical barriers or state policing.

Solution:

- (a) In Jhabua, land degradation was largely driven by the over-exploitation of open-access resources. 'Social Fencing' turned these from "open-access" (which leads to the tragedy of the commons) to "community-managed" resources.
- (b) By banning free grazing on common lands, the community allowed the grass and young saplings to grow, which naturally reduced soil erosion.
- (c) This strategy is a shift from 'top-down' environmental policing to 'bottom-up' community stewardship. It recognizes that the survival of the tribal economy is tied to the health of the community-owned land.
- (d) Therefore, the 'fencing' is not a physical wire but a social contract among the villagers to protect their shared environmental assets for long-term collective benefit.

Final Answer: Common Property Resources (CPRs) used by the community.

Answer: (B)



Q37.

Solution**Concept:**

Watershed management involves technical interventions designed to slow down the speed of rainwater runoff. In arid and semi-arid regions like Jhabua, water is lost rapidly through surface flow, which also carries away fertile topsoil. Contour trenches (ditches dug along lines of equal elevation) and gully plugs (small barriers in drainage lines) act as "speed breakers" for water, forcing it to stay on the land longer.

Solution:

- (a) When water is slowed down by these structures, it has more time to seep into the ground. This process is called 'In-situ moisture conservation.'
- (b) The primary objective is to recharge the underground aquifers and keep the soil moist even after the rains stop. This is crucial for sustaining crops during dry spells.
- (c) Unlike large dams, these small-scale structures do not displace people but rather improve the 'Carrying Capacity' of the local soil.
- (d) By recharging groundwater, the water level in local wells rises, making irrigation possible where it was previously non-existent.

Final Answer: Enhancing soil moisture and recharging groundwater.

Answer: (B)



Q38.

Solution**Concept:**

The cropping intensity of a region is a direct indicator of its agricultural development. In rain-fed areas, farmers are usually limited to 'Mono-cropping' (growing only one crop during the monsoon). 'Double-cropping' involves growing a second crop (Rabi) after the monsoon. This transition is only possible if there is a reliable source of stored water or high residual soil moisture available after the rains have ceased.

Solution:

- (a) The 'Pani Roko Abhiyan' (Stop Water Campaign) in Jhabua successfully increased the availability of water through harvesting and groundwater recharge.
- (b) With this newfound water security, farmers who previously harvested only one crop (like maize) could now plant a second crop (like wheat or pulses) during the winter season.
- (c) This change effectively doubled the agricultural output of the land without needing to expand the physical area of the farms.
- (d) Increased double-cropping directly leads to higher annual income for tribal households and reduces their vulnerability to a single bad monsoon season.

Final Answer: It resulted in an increase in the area under double-cropping.

Answer: (B)



Q39.

Solution**Concept:**

Migration is often a survival strategy in drought-prone areas, driven by 'Push Factors' such as poverty, lack of work, and environmental degradation. When a region undergoes ecological restoration, the economic reasons for leaving are removed. This transforms 'Distress Migration' into 'Stayer' behavior, where the local population finds it more viable to invest their labor in their own revived ecosystem.

Solution:

- (a) In Jhabua, the 'Push factor' was the inability of the degraded land to provide a year-round livelihood. People had to leave for cities like Indore or Ahmedabad to find manual work.
- (b) As the watershed project made agriculture profitable and created local work through double-cropping, the compulsion to leave vanished.
- (c) A weakening push factor signifies that the "local carrying capacity" has been restored. It proves that rural development can be a solution to urban over-congestion by keeping people in their villages.
- (d) This is a hallmark of 'Inclusive Growth,' where development reaches the most marginalized sections (tribals) in their own native habitats.

Final Answer: That rural livelihoods have become more sustainable and profitable locally.

Answer: (B)



Q40.

Solution**Concept:**

Geographical planning can be 'Sectoral' (focusing on one industry) or 'Regional' (focusing on a specific area). Modern planning emphasizes 'Integrated Management,' which looks at the environment, society, and economy as an interconnected whole. Watershed management is the best example of this because it manages the physical unit (the drainage basin) while involving the social unit (the community).

Solution:

- (a) The Jhabua model is not 'Top-down' because it relies on the 'Pani Roko' community campaign and 'Social Fencing' rather than just government orders.
- (b) It is 'Integrated' because it combines water conservation, forest protection, and agricultural improvement into one cohesive plan.
- (c) It is 'Community-based' because the decisions regarding CPR management and grazing bans are made by the local tribal groups themselves.
- (d) This approach ensures the 'Sustainability' of the project because the local people have a sense of ownership over the resources they have helped to restore.

Final Answer: Integrated community-based watershed management.

Answer: (C)



Q41.

Solution**Concept:**

The North Atlantic Sea Route is the most heavily trafficked maritime corridor in the world, often referred to as the 'Big Trunk Route'. In Transportation Geography, this route represents the highest level of 'Spatial Interaction' between two global economic cores. It serves as the primary artery for trade between North America and Europe, which together account for a massive share of global GDP and industrial output.

Solution:

- (a) The route connects the Eastern seaboard of the United States and Canada with the ports of Western Europe. These two regions are highly industrialized and urbanized, leading to an immense demand for the exchange of raw materials, manufactured goods, and high-tech equipment.
- (b) One-fourth of the world's foreign trade moves along this single route. The density of traffic is so high that it resembles a "trunk" or main line of a tree, from which other global trade routes branch out.
- (c) The presence of advanced port infrastructure like New York, London, Rotterdam, and Hamburg at both ends facilitates the rapid handling of massive container ships.
- (d) Unlike other routes that may be seasonal or restricted by geography, the North Atlantic route is utilized year-round, despite the challenges of fog and icebergs in the higher latitudes, due to its critical economic importance.

Final Answer: It connects two of the most industrially developed regions—North-Eastern USA and North-Western Europe.

Answer: (A)



Q42.

Solution**Concept:**

In Population Geography, the 'Age-Sex Composition' of a nation is divided into three functional groups: children (0-14), the working age (15-59), and the aged (60+). The proportion of the population in the working-age bracket is a key determinant of the 'Demographic Dividend'. A larger working-age group means a lower 'Dependency Ratio', which can lead to higher economic productivity and savings if the labor force is effectively employed.

Solution:

- (a) The working-age population in India is officially categorized as the group between 15 and 59 years. This group is considered economically productive and biologically reproductive.
- (b) Individuals below 15 are classified as 'Young Dependents', requiring investment in education and health, while those 60 and above are 'Old Dependents', often requiring pension and geriatric care.
- (c) India is currently in a unique position where the 15-59 age group is expanding, providing a "window of opportunity" for economic growth.
- (d) Understanding this bracket is essential for government planning regarding skill development, job creation, and social security. Any shift in this bracket impacts the total labor supply and the overall economic vitality of the country.

Final Answer: 15 to 59 years.

Answer: (A)



Q43.

Solution**Concept:**

The advent of Information and Communication Technology (ICT) has led to the creation of a new dimension of human activity known as 'Cyberspace'. In modern Geography, this is described as the 'Geography of Flow' rather than the 'Geography of Place'. Cyberspace is a world of electronic computer networks that facilitates the immediate exchange of information regardless of the physical distance between the sender and the receiver.

Solution:

- (a) Cyberspace is an 'intangible' space. Unlike traditional geography which deals with physical landforms, mountains, and rivers, cyberspace exists in the form of digital signals, fiber-optic cables, and satellite links.
- (b) It has effectively "collapsed" distance, leading to what geographers call 'Time-Space Convergence'. For example, an IT professional in Bengaluru can provide services to a client in New York in real-time.
- (c) This electronic network is the backbone of the Quaternary and Quinary sectors. It allows for the global integration of markets, social media, and governance (e-governance).
- (d) While it is intangible, it has a physical footprint in the form of massive data centers and undersea cables, making it a critical subject of study in modern economic geography.

Final Answer: Intangible Geography of Electronic Networks.

Answer: (B)



Q44.

Solution**Concept:**

As international trade grows, major historical ports often face 'Congestion'—a lack of space for expansion and excessive waiting times for ships. To solve this, 'Satellite Ports' are developed nearby. These are modern, deep-water facilities equipped with the latest technology to handle high-volume container traffic, allowing the older port to focus on specific cargo or passenger services.

Solution:

- (a) Mumbai Port is one of India's oldest and busiest ports. By the 1980s, it reached its maximum capacity due to the dense urban sprawl of Mumbai city surrounding it.
- (b) To alleviate this pressure, the Jawaharlal Nehru Port (also known as Nhava Sheva) was developed across the Mumbai harbor on the mainland.
- (c) JNPT is a premier container-handling port, designed with highly mechanized berths and deep drafts to accommodate the world's largest container vessels.
- (d) It now handles more than half of India's container traffic. This relationship between Mumbai Port (the mother port) and JNPT (the satellite port) is a classic example of urban-industrial decentralization in transport planning.

Final Answer: Jawaharlal Nehru Port (Nhava Sheva).

Answer: (B)



Q45.

Solution**Concept:**

Agro-forestry is a land-use management system that integrates trees or shrubs with agricultural crops and/or livestock. It is a 'Sustainable Agriculture' strategy that aims to mimic the multi-layered structure of natural ecosystems. In Geography, this is studied as a way to increase 'Resource Use Efficiency' and protect the environment while simultaneously providing multiple sources of income to the farmer.

Solution:

- (a) The fundamental principle of agro-forestry is the "integration" of trees and crops on the same piece of land. This can be done through 'Alley Cropping' (planting rows of trees with crops in between) or 'Boundary Planting'.
- (b) This model provides several ecological benefits: the trees act as windbreaks, reduce soil erosion, and improve soil fertility through leaf litter and nitrogen fixation.
- (c) Economically, it provides the farmer with short-term income from crops (like wheat or vegetables) and long-term capital from trees (for timber, fruits, or fodder).
- (d) In the context of climate change, agro-forestry is recognized as a major tool for 'Carbon Sequestration', as the trees store atmospheric carbon in their biomass and the soil.

Final Answer: Trees along with agricultural crops on the same piece of land.

Answer: (B)



Q46.

Solution**Concept:**

Human Poverty is a multidimensional concept that extends beyond the mere lack of income. While the Human Development Index (HDI) measures the average achievements in a country in three basic dimensions (long and healthy life, knowledge, and a decent standard of living), the Human Poverty Index (HPI) was developed to highlight the 'deprivation' or the 'shortfalls' in these very same dimensions. It reflects the proportion of the population that is excluded from the benefits of development.

Solution:

- (a) The HPI does not look at how much the "average" person has; instead, it looks at how many people do not reach a minimum threshold.
- (b) It uses indicators like the probability at birth of not surviving to age 40, the adult illiteracy rate, and the percentage of people without access to safe water and underweight children.
- (c) By focusing on these 'shortfalls,' the HPI provides a more sobering and realistic picture of the socio-economic reality in developing nations than the HDI, which can sometimes be skewed by the high achievements of a wealthy elite.
- (d) This distinction is vital in Geography because it helps planners identify "pockets of poverty" and regions that require urgent social intervention despite having a high national GDP.

Final Answer: Measures the shortfalls or lack of progress in human development.

Answer: (B)



Q47.

Solution**Concept:**

The Indian Railway network is one of the largest in the world, managed through a decentralized system of 'Zones'. Each zone is an administrative unit headed by a General Manager. To ensure efficient operations across the vast and diverse geography of India, these zones are headquartered in strategic cities that serve as major rail junctions and administrative hubs.

Solution:

- (a) The South Western Railway (SWR) was created in 2003 by carving out divisions from the Southern and South Central Railways to better serve the logistical needs of Karnataka and parts of Goa and Andhra Pradesh.
- (b) Hubballi (formerly Hubli) was chosen as the headquarters because it is a historic railway junction and a major commercial center in North Karnataka, often called the 'Gateway to North Karnataka'.
- (c) This zone is critical for the transport of minerals (like iron ore from the Bellary region) and agricultural produce to the ports on the western coast.
- (d) For comparison: South Eastern Railway is in Kolkata, Central Railway is in Mumbai (CST), and North Western Railway is in Jaipur. Knowing the headquarters helps geographers understand the spatial flow of administrative power in the transport sector.

Final Answer: South Western Railway.

Answer: (A)



Q48.

Solution**Concept:**

The 'Indira Gandhi Canal' (IGNP) is one of the most ambitious irrigation projects in the world, designed to bring Himalayan water to the arid Thar Desert. This "spatial transformation" has not only changed the physical landscape from brown to green but has also completely altered the 'Agricultural Geography' of the region, allowing for the cultivation of water-intensive crops in an area where only millets were once possible.

Solution:

- (a) Before the canal, agriculture in Western Rajasthan (Jaisalmer, Bikaner, Ganganagar) was limited to rain-fed 'Kharif' crops like Bajra and Guar.
- (b) The permanent availability of canal water has allowed farmers to transition to 'Rabi' (winter) cropping and commercial farming.
- (c) Today, North-Western Rajasthan has become a major producer of high-value crops like Wheat, Mustard, and Cotton. In fact, Ganganagar is now often referred to as the 'Food Basket of Rajasthan'.
- (d) However, this shift has a geographical "cost"—the intensive irrigation in a desert environment has led to severe soil salinity and waterlogging in some areas, illustrating the conflict between economic gain and ecological sustainability.

Final Answer: Wheat and Cotton.

Answer: (B)



Q49.

Solution**Concept:**

Industries are classified based on ownership to understand the distribution of economic control in a nation. In a 'Mixed Economy' like India, industries can be owned by the government (Public), private individuals (Private), a combination of both (Joint), or by a group of producers/workers (Cooperative).

Solution:

- (a) The 'Joint Sector' involves industries that are managed and owned jointly by the government and private entrepreneurs.
- (b) Oil India Limited (OIL) is a premier Indian public sector undertaking, but it is often cited as a classic example of a 'Joint Sector' enterprise because it was originally incorporated as a partnership between the Government of India and the Burmah Oil Company (a private entity).
- (c) This model allows the government to utilize the technical expertise and efficiency of the private sector while maintaining strategic control over essential natural resources like petroleum.
- (d) Understanding ownership helps geographers analyze the "Political Economy" of a region—how government policy shapes industrial growth and resource extraction.

Final Answer: Joint Sector.

Answer: (C)



Q50.

Solution**Concept:**

In Climatology and Urban Geography, 'Thermal Inversion' (or Temperature Inversion) is a deviation from the normal atmospheric behavior where temperature decreases with altitude. This phenomenon is a major contributor to severe air pollution episodes in metropolitan cities, particularly during the winter months when the ground cools rapidly at night.

Solution:

- (a) Under normal conditions, air near the surface is warmer and rises, carrying pollutants high into the atmosphere where they disperse.
- (b) During an inversion, a layer of warm air acts as a "lid" over a layer of cooler, denser air trapped near the ground.
- (c) Because the cool air cannot rise, all the urban emissions—from vehicles, factories, and crop residue burning—are trapped at the breathing level of the population.
- (d) This is the primary reason why cities like Delhi experience hazardous "Smog" in November and December. The inversion prevents the vertical mixing of air, turning the city into a virtual "gas chamber" until the sun warms the ground or winds clear the air.

Final Answer: Thermal Inversion.

Answer: (B)



Answer Key

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

