

# UP Board Class 12 Geography - 322(AO) 2023 Question Paper with Solutions

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| Time Allowed : 3 Hours | Maximum Marks : 100 |
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## General Instructions

Read the following instructions very carefully and strictly follow them:

1. All questions are compulsory.
2. Question Nos. 1 to 8 are Multiple Choice Type Questions. Question Nos. 9 to 16 are Very Short Answer Type Questions, to be answered in about 20 words each. Question Nos. 17 to 22 are Short Answer Type Questions, to be answered in about 50 words each and Question Nos. 23 and 24 are Long Answer Type Questions, to be answered in about 150 words each. Question Nos. 25 and 26 are map related questions.
3. Marks allotted to the questions are indicated against them.
4. Illustrate your answers with suitable sketch maps and diagrams.

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1. Who amongst the following presented the concept of neo-determinism?

- (A) Jean Brunhes
- (B) Griffith Taylor
- (C) E.C. Semple
- (D) Karl Ritter

**Correct Answer:** (B) Griffith Taylor

**Solution:**

### Step 1: Understanding the Concept:

Neo-determinism, also known as 'stop-and-go determinism', is a geographical concept that provides a middle ground between environmental determinism and possibilism.

- **Environmental determinism** argues that the physical environment dictates human social development.

- **Possibilism** argues that the environment provides a range of possibilities, and humans have the freedom to choose their course of action.

- **Neo-determinism** suggests that nature sets limits and offers possibilities for human development, but it does not completely determine it. Humans can react to these limits and make choices, but they cannot ignore the influence of the environment without consequences.

**Step 2: Identifying the Proponent:**

The concept of neo-determinism was introduced by the Australian geographer Griffith Taylor. He used the analogy of a traffic controller to explain his theory: humans can alter the pace ('go' or 'stop') of development but cannot change the direction set by the natural environment.

**Step 3: Analyzing the Options:**

- **Jean Brunhes** was a French geographer and a proponent of possibilism.
- **Griffith Taylor** is credited with developing the concept of neo-determinism.
- **E.C. Semple**, a student of Ratzel, was a strong advocate for environmental determinism.
- **Karl Ritter**, along with Alexander von Humboldt, is considered one of the founders of modern geography, with leanings towards a deterministic view.

**Step 4: Final Answer:**

Based on the analysis, Griffith Taylor is the geographer who presented the concept of neo-determinism.

**Quick Tip**

For geography exams, create a table of key geographical thinkers, their associated schools of thought (e.g., Determinism, Possibilism, Neo-determinism), and their main arguments or analogies. This helps in quick revision and comparison.

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**2. The largest country according to population size is :**

- (A) USA
- (B) Brazil
- (C) China
- (D) India

**Correct Answer:** (D) India

**Solution:**

**Step 1: Understanding the Question:**

The question asks to identify the country with the largest population in the world from the given options. Population rankings can change over time.

**Step 2: Analyzing Current and Historical Data:**

- For many decades, China was the world's most populous country.
- However, in April 2023, India surpassed China to become the world's most populous nation, as confirmed by the United Nations.
- As of 2025, India's population is estimated to be over 1.46 billion, while China's is around 1.42 billion.
- The other options, USA and Brazil, have significantly smaller populations. The USA is the

third most populous, and Brazil is seventh.

### Step 3: Contextual Consideration:

This question paper also includes a question about the 2011 Indian census (Question 5). At that time, China was the most populous country. If the exam paper is old, 'China' might have been the intended answer. However, when answering a factual question without a specified date, the most current information should be used. As of the current date, India is the correct answer.

### Step 4: Final Answer:

Based on the most recent demographic data, India is the largest country by population size.

#### Quick Tip

Demographic facts like population rankings can change. Always be aware of the most current data, but also consider the context or date of the exam paper if available. For major exams, data from the UN or World Bank is usually the standard.

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### 3. Which one of the following is not a primary activity?

- (A) Transport
- (B) Mining
- (C) Agriculture
- (D) Hunting

**Correct Answer:** (A) Transport

#### Solution:

#### Step 1: Understanding Economic Activities:

Economic activities are categorized into sectors based on their nature:

- **Primary Sector:** Involves the direct extraction or harvesting of natural resources from the Earth. Examples include agriculture, mining, fishing, forestry, and hunting.
- **Secondary Sector:** Involves the processing of raw materials obtained from the primary sector into finished goods. Examples include manufacturing and construction.
- **Tertiary Sector:** Involves providing services to consumers and businesses. It does not produce tangible goods. Examples include transport, banking, retail, and healthcare.

#### Step 2: Analyzing the Options:

- **(a) Transport:** This is a service that facilitates the movement of goods and people. It does not involve extracting raw materials. Therefore, it belongs to the tertiary sector.
- **(b) Mining:** This activity involves extracting minerals and other geological materials from the Earth, which is a core primary activity.
- **(c) Agriculture:** This involves cultivating land and raising crops, which is a fundamental primary activity.

- **(d) Hunting:** This involves the pursuit and killing of wild animals, which is a form of harvesting natural resources and is classified as a primary activity.

**Step 3: Final Answer:**

Since transport is a service-based activity, it is not a primary activity. It falls under the tertiary sector. The other options are all examples of primary activities.

**Quick Tip**

To easily remember the sectors, think: Primary = Raw Materials, Secondary = Manufacturing/Making, Tertiary = Services. This simple classification helps quickly categorize most economic activities in exam questions.

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**4. Human settlements developed along the road are :**

- (A) rectangular
- (B) linear
- (C) circular
- (D) square

**Correct Answer:** (B) linear

**Solution:**

**Step 1: Understanding Settlement Patterns:**

Human settlements are classified based on their shape or pattern. The pattern is often influenced by the geographical features or infrastructure around which the settlement develops.

- **Linear Pattern:** Buildings are constructed in a line, typically along a road, railway line, river, or coastline. This provides easy access to the transport route or resource.
- **Rectangular/Square Pattern:** These patterns are often found in planned settlements or in flat plains where roads intersect at right angles, creating a grid-like structure.
- **Circular Pattern:** Settlements develop around a central feature like a lake, pond, or a place of worship. Houses are built around this central point.

**Step 2: Applying the Concept to the Question:**

The question specifies settlements developing "along the road". A road is a linear feature. Therefore, settlements that grow alongside it naturally extend in a line to maximize access to the road for transportation and communication. This results in a linear pattern.

**Step 3: Final Answer:**

The settlement pattern developed along a road is linear.

### Quick Tip

Associate settlement patterns with their key geographical features: Linear with lines (road, river), Circular with a central point (lake, temple), and Rectangular with grids (planned towns, plains).

#### 5. India's population as per 2011 census was :

- (A) 1210.1 million
- (B) 1088.3 million
- (C) 1350.1 million
- (D) 1305.8 million

**Correct Answer:** (A) 1210.1 million

#### Solution:

##### Step 1: Understanding the Question:

The question asks for the specific population of India as recorded in the 15th National Census conducted in 2011.

##### Step 2: Recalling the 2011 Census Data:

According to the official provisional reports of the Census of India 2011, the total population of India was 1,210,193,422.

This figure can be expressed in millions by dividing by 1,000,000:

$$\frac{1,210,193,422}{1,000,000} \approx 1210.2 \text{ million}$$

This is also commonly stated as 1.21 billion.

##### Step 3: Comparing with Options:

- (A) 1210.1 million: This value is the closest to the official figure of 1210.2 million. The minor difference might be due to rounding or provisional vs. final figures. Other sources state the figure as 1210.19 million.
- (B) 1088.3 million: This is incorrect.
- (C) 1350.1 million: This figure is closer to India's population in more recent years, but not for the 2011 census.
- (D) 1305.8 million: This is also incorrect.

##### Step 4: Final Answer:

The correct option that represents India's population as per the 2011 census is 1210.1 million.

### Quick Tip

For exams related to India, key figures from the most recent census (currently 2011) are very important. Memorize the total population, literacy rate, sex ratio, and population density.

## 6. Bhilai city of India is famous for :

- (A) Cotton textile industry
- (B) Sugar industry
- (C) Iron and steel industry
- (D) Jute industry

**Correct Answer:** (C) Iron and steel industry

### Solution:

#### Step 1: Identifying Bhilai City:

Bhilai is a major industrial city located in the Durg district of the state of Chhattisgarh, India. It is often referred to as the "Steel City of Central India".

#### Step 2: Analyzing Bhilai's Industrial Significance:

- Bhilai is renowned for the Bhilai Steel Plant (BSP), which is one of the largest and most profitable steel plants in India.
- It is a major unit of the Steel Authority of India Limited (SAIL).
- The plant was established in 1955 with the help of the erstwhile Soviet Union and has been a cornerstone of India's steel production, being the sole producer of long rails for the Indian Railways.

#### Step 3: Evaluating Other Options:

- **Cotton textile industry:** Major centers are in Maharashtra and Gujarat (e.g., Mumbai, Ahmedabad).
  - **Sugar industry:** Predominantly located in Uttar Pradesh and Maharashtra.
  - **Jute industry:** Concentrated in the Hooghly basin in West Bengal.
- These industries are not the primary reason for Bhilai's fame.

#### Step 4: Final Answer:

Bhilai is famous for its large and significant iron and steel industry, centered around the Bhilai Steel Plant.

### Quick Tip

When studying industrial geography, create a map of India and mark the major industrial centers for different sectors like steel (Bhilai, Jamshedpur, Rourkela), cotton (Ahmedabad, Mumbai), and jute (Kolkata region). This visual aid enhances memory.

## 7. Which one of the following is not a problem of urbanization ?

- (A) Extensive agriculture
- (B) Slum area
- (C) Traffic problems
- (D) Industrialization

**Correct Answer:** (A) Extensive agriculture

### Solution:

#### Step 1: Understanding Urbanization and Its Problems:

Urbanization is the process of population shift from rural to urban areas, leading to the growth of cities. This rapid growth often leads to several socio-economic and environmental challenges. Common problems include housing shortages, development of slums, traffic congestion, pollution, and strain on public services.

#### Step 2: Analyzing the Options:

- **(A) Extensive agriculture:** This refers to a farming system that uses large areas of land with low inputs of labor and capital. Urbanization is characterized by the conversion of agricultural land into residential, commercial, and industrial areas. Therefore, extensive agriculture is contrary to the process of urbanization and is not a problem caused by it. In fact, urbanization leads to a *reduction* in agricultural land.
- **(B) Slum area:** The rapid influx of people into cities often outpaces the availability of affordable housing, leading to the formation and growth of slums, which are a major problem of urbanization.
- **(C) Traffic problems:** Increased population and vehicle ownership in cities lead to traffic congestion, which is a classic problem of urbanization.
- **(D) Industrialization:** While industrialization is a major *cause* or driver of urbanization, the associated effects like industrial pollution are significant problems within urban areas. In the context of "problems of urbanization," industrialization itself can be viewed as a source of problems. However, compared to extensive agriculture, it is directly linked to the urban process.

#### Step 3: Final Answer:

Extensive agriculture is not a problem of urbanization; rather, it is a land use that is displaced by urban growth. The other options are either direct problems (slums, traffic) or closely associated causes/problems (industrialization). Therefore, extensive agriculture is the correct answer.

### Quick Tip

For "not" questions, carefully evaluate each option against the core concept. Ask yourself, "Is this caused by, or is this a characteristic of, urbanization?" This process of elimination will help you identify the outlier.

## 8. Which one of the following river is most polluted?

- (A) Narmada river
- (B) Yamuna river
- (C) Tungabhadra river
- (D) Sutlej river

**Correct Answer:** (B) Yamuna river

### Solution:

#### Step 1: Understanding River Pollution in India:

Many rivers in India face severe pollution due to the discharge of untreated domestic sewage, industrial effluents, and agricultural runoff. The level of pollution varies, with rivers flowing through densely populated and industrialized areas being the most affected.

#### Step 2: Analyzing the Pollution Levels of the Given Rivers:

- **(A) Narmada river:** While it faces pollution challenges, it is generally considered one of the cleaner major rivers in India, especially compared to the Gangetic plain rivers.
- **(B) Yamuna river:** The Yamuna is infamous for being one of India's most polluted rivers, especially in the stretch passing through Delhi. It receives enormous quantities of untreated sewage and industrial waste, leading to extremely low levels of dissolved oxygen and high levels of pollutants. The river is considered "dead" in some segments.
- **(C) Tungabhadra river:** A major river in Southern India, it suffers from pollution from mining and industrial activities in its catchment area, but the scale of pollution is generally considered less severe than that of the Yamuna in Delhi.
- **(D) Sutlej river:** This river also faces significant pollution from industrial and municipal waste, particularly in the stretches flowing through Punjab. However, the Yamuna's condition, particularly around the national capital, is consistently cited as being among the worst in the country.

#### Step 3: Final Answer:

Among the given options, the Yamuna river is widely recognized as the most polluted, primarily due to the massive discharge of waste from Delhi and other urban centers along its banks.

### Quick Tip

Stay updated with major environmental reports and news, such as those from the Central Pollution Control Board (CPCB) in India. Questions related to environmental issues like river pollution, air quality, and national parks are common in competitive exams.

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## 9. Explain the scope of human geography.

### Answer:

The scope of human geography is vast and interdisciplinary. It studies the inter-relationship between the physical environment and the socio-cultural environment created by human beings. It covers a wide range of sub-fields, including:

- **Social Geography:** Studies social phenomena in their spatial context, including topics like population, health, and education.
- **Political Geography:** Examines the spatial expression of political processes and how geography impacts politics (e.g., boundaries, states, geopolitics).
- **Economic Geography:** Focuses on the location, distribution, and spatial organization of economic activities (e.g., agriculture, industry, services).
- **Population Geography:** Deals with the study of population distribution, composition, migration, and growth.
- **Settlement Geography:** Studies the form of human settlements, their distribution, and the processes that shape them (rural and urban).
- **Cultural Geography:** Investigates the spatial variations in cultural traits like language, religion, and customs.

### Quick Tip

To remember the scope, think of human geography as the study of 'where' and 'why' human activities are located where they are. Link its sub-fields to different aspects of human life: society, politics, economy, etc.

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## 10. Mention any two densely populated areas of the world.

### Answer:

Two of the most densely populated areas of the world are:

1. **East Asia:** This region includes eastern China, Japan, South Korea, and Taiwan. The presence of fertile river valleys (like the Yangtze and Yellow River), favorable climates for agriculture, and high levels of industrialization contribute to its high population density.
2. **South Asia:** This region includes India, Pakistan, Bangladesh, and Sri Lanka. High population density is supported by fertile alluvial plains (like the Indo-Gangetic Plain), monsoon

agriculture, and a long history of human settlement.

#### Quick Tip

When asked for examples of population distribution, always think of major world regions first. The four largest population clusters are East Asia, South Asia, Southeast Asia, and Europe. Remembering these four will cover most questions on this topic.

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### 11. Write the names of two services of quaternary activities.

#### Answer:

Quaternary activities are a specialized part of the tertiary sector focused on knowledge-based services. Two examples are:

1. **Information Technology (IT) Services:** This includes software development, data processing, consultancy, and information management.
2. **Research and Development (R&D):** This involves scientific research and the development of new technologies, products, and processes, often carried out in universities, government labs, and corporate R&D departments.

#### Quick Tip

Differentiate between economic sectors: Primary (raw materials), Secondary (manufacturing), Tertiary (general services like transport), Quaternary (knowledge services like IT, R&D), and Quinary (high-level decision-making like CEOs, top government officials).

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### 12. Mention the types of urban settlements.

#### Answer:

Urban settlements are typically classified based on their size, population, and the range of services they provide. The main types in a hierarchical order are:

- **Town:** A small urban area, larger than a village, that offers more specialized services.
- **City:** A large and densely populated urban area that serves as a center for commerce, industry, and culture.
- **Metropolitan Area:** A large city together with its suburbs and linked surrounding areas.
- **Conurbation:** A large, continuous urban area formed when several towns and cities merge. (e.g., the area from Manchester to Liverpool in the UK).
- **Megalopolis:** A massive chain of interconnected metropolitan areas or conurbations. (e.g., the Boston-Washington D.C. corridor in the USA).

### Quick Tip

Remember the hierarchy of urban settlements from smallest to largest: Town → City → Metropolis → Conurbation → Megalopolis. This helps in understanding the scale of urbanization.

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### 13. Define Sex Ratio.

#### Answer:

Sex ratio is a demographic indicator that measures the balance between males and females in a population. It is typically defined as the number of females per 1000 males in a population. The formula is:

$$\text{Sex Ratio} = \left( \frac{\text{Total number of females}}{\text{Total number of males}} \right) \times 1000$$

A sex ratio greater than 1000 indicates more females than males, while a ratio less than 1000 indicates a deficit of females. It is a crucial indicator of gender equality and social well-being in a society.

### Quick Tip

For Indian context, the definition is always 'females per 1000 males'. In some Western countries, it might be reversed ('males per 100 females'). Always stick to the definition prevalent in your region or as specified in the curriculum. The formula helps in remembering the exact definition.

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### 14. Describe the characteristics of Tribal settlements in India.

#### Answer:

Tribal settlements in India, often located in remote areas like forests and hills, have distinct characteristics:

- **Dispersed or Hamleted Pattern:** Settlements are often scattered over a large area, consisting of small hamlets or individual homesteads rather than a single large village.
- **Use of Local Materials:** Dwellings are constructed using locally available materials such as wood, bamboo, mud, leaves, and thatch, reflecting a deep connection with the natural environment.
- **Small in Size:** The settlements are generally small, reflecting a community-based lifestyle and a subsistence economy.
- **Close Proximity to Nature:** They are typically located close to forests, water sources, or their agricultural lands (like shifting cultivation plots), which are central to their livelihood.

### Quick Tip

To describe tribal settlements, focus on their relationship with the environment. Their settlement pattern, building materials, and location are all strongly influenced by their natural surroundings and subsistence-based economy.

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## 15. Define water pollution. Describe main sources of water pollution.

### Answer:

#### Definition of Water Pollution:

Water pollution is the contamination of water bodies such as rivers, lakes, oceans, aquifers, and groundwater, usually as a result of human activities. It occurs when harmful substances (pollutants) are discharged directly or indirectly into water bodies without adequate treatment to remove them, making the water unfit for its intended uses like drinking, cooking, swimming, or fishing.

#### Main Sources of Water Pollution:

1. **Domestic Sewage:** Untreated or inadequately treated wastewater from households, containing human waste, food scraps, and detergents, is a primary source of organic and microbial pollution.
2. **Industrial Effluents:** Waste discharged from industries like chemical plants, tanneries, and textile mills often contains toxic chemicals, heavy metals (like lead and mercury), and thermal pollution (hot water).
3. **Agricultural Runoff:** Water flowing from agricultural fields carries fertilizers, pesticides, and herbicides into nearby water bodies, leading to eutrophication (excessive nutrient enrichment) and chemical contamination.
4. **Solid Waste:** Improper disposal of solid waste and plastics can end up in water bodies, choking aquatic life and leaching harmful chemicals.

### Quick Tip

Categorize sources of pollution into 'point sources' (identifiable sources like a factory drainpipe) and 'non-point sources' (diffused sources like agricultural runoff). This structured approach helps in writing comprehensive answers.

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## 16. Describe urban waste management.

### Answer:

Urban waste management refers to the systematic process of collecting, transporting, processing, recycling, and disposing of solid waste generated in urban areas. The goal is to manage waste in an environmentally sound, socially acceptable, and economically feasible manner. The

key steps include:

- **Waste Collection:** Gathering solid waste from residential, commercial, and industrial areas.
- **Segregation:** Separating waste at the source into different categories, such as biodegradable (wet), non-biodegradable (dry), and hazardous waste. This is a critical step for effective recycling and processing.
- **Transportation:** Moving the collected waste to processing or disposal sites.
- **Processing and Recycling:** Recovering materials from waste. This includes composting biodegradable waste, recycling materials like paper, plastic, and metal, and waste-to-energy generation.
- **Disposal:** The final disposal of residual waste that cannot be processed or recycled, typically in scientifically managed landfills or through incineration.

#### Quick Tip

Remember the '3 R's' of waste management: **Reduce**, **Reuse**, and **Recycle**. Mentioning this concept shows a good understanding of modern waste management principles that prioritize minimizing waste generation.

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### (Short-Answer Type Questions)

17. Discuss the factors for uneven distribution of population in the world.

#### Answer:

The distribution of population across the world is highly uneven. Some areas are densely populated while others are sparsely populated. The key factors influencing this distribution can be grouped into three categories:

##### 1. Geographical/Physical Factors:

- **Relief/Topography:** Flat plains and gentle slopes are preferred for agriculture and infrastructure, leading to high population densities (e.g., Indo-Gangetic Plains). Mountainous and rugged terrains are sparsely populated.
- **Climate:** Areas with moderate, temperate climates attract more people, while extreme climates (hot deserts, cold polar regions) discourage settlement.
- **Availability of Water:** Population is concentrated in river valleys and coastal areas where fresh water is readily available for drinking, agriculture, and industry.
- **Soil Fertility:** Fertile soils, such as alluvial and loess soils, support intensive agriculture and thus high population densities.

##### 2. Economic Factors:

- **Mineral Resources:** Areas rich in minerals attract industries and mining activities, which in turn attract people seeking employment (e.g., Chota Nagpur Plateau in India).
- **Industrialization:** Industrial belts provide numerous job opportunities, leading to the growth of densely populated urban centers.

- **Urbanization:** Cities offer better employment, education, and health facilities, acting as magnets for population concentration.

### 3. Social and Cultural Factors:

- **Religious and Cultural Significance:** Places of religious or cultural importance often attract large populations.

- **Political Stability:** People tend to move away from areas of political unrest, conflict, and instability, preferring to live in peaceful and stable regions.

- **Government Policies:** Governments can influence population distribution through policies that encourage settlement in certain areas or restrict it in others.

#### Quick Tip

For a comprehensive answer, structure your points under clear headings like Geographical, Economic, and Social/Cultural factors. Use specific examples (like the Nile Valley for water availability or Siberia for extreme climate) to support your points.

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### 18. Differentiate between secondary and tertiary economic activities.

#### Answer:

The key differences between secondary and tertiary economic activities are as follows:

**Basis of Difference**  
**Tertiary Activities**  
**Nature of Activity**

Involve the provision of services rather than the production of tangible goods.

**End Product**

The output is an intangible service (e.g., medical advice, transportation, teaching).

**Link to Resources**

Not directly dependent on natural resources; they facilitate the functioning of primary and secondary sectors.

**Examples**

Transportation, banking, retail, tourism, healthcare, education.

**Workforce**

The workforce is often referred to as 'white-collar' workers.

**Secondary Activities**

Involve the processing and transformation of raw materials into finished goods. They add value by manufacturing.

The output is a physical, tangible product (e.g., a car, cloth, steel).

Directly dependent on the raw materials obtained from primary activities.

Manufacturing, construction, food processing, electricity generation.

The workforce is often referred to as 'blue-collar' workers.

**Quick Tip**

Use a table to clearly present differences. For a quick mental check, remember: Secondary = **Making things** (manufacturing), Tertiary = **Doing things** (services).

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**19. Discuss the problems of urban settlements in the developing countries.**

**Answer:**

Urban settlements in developing countries face numerous severe problems due to rapid and often unplanned urbanization. Key problems include:

- **Overcrowding and Housing Shortage:** A massive influx of migrants leads to high population densities and an acute shortage of affordable housing, forcing many to live in overcrowded conditions.
- **Growth of Slums and Squatter Settlements:** Lack of affordable housing results in the proliferation of informal settlements (slums) characterized by poor living conditions, lack of basic amenities like clean water, sanitation, and electricity.
- **Strain on Infrastructure and Public Services:** Existing infrastructure such as water supply, sewage systems, electricity grids, and public transport is often overwhelmed, leading to frequent breakdowns and inadequate service delivery.

- **Unemployment and Underemployment:** The number of job seekers often exceeds the number of available jobs, leading to high rates of unemployment and a large informal sector with low wages and no job security.
- **Environmental Pollution:** High concentration of industries, increased vehicular traffic, and improper waste disposal lead to severe air, water, and noise pollution, posing significant health risks.
- **Traffic Congestion:** A rise in the number of vehicles without a corresponding expansion of road networks leads to chronic traffic jams, increasing commute times and pollution.
- **Social Problems:** Overcrowding and poverty can contribute to higher crime rates and social tension.

#### Quick Tip

Structure your answer by categorizing problems into Economic (unemployment), Social (slums, crime), and Environmental (pollution, waste). This provides a clear and comprehensive overview.

## 20. Mention the four causes of migration from rural to urban areas in India.

### Answer:

Migration from rural to urban areas in India is driven by a combination of 'push' factors (forcing people to leave rural areas) and 'pull' factors (attracting them to urban areas). Four major causes are:

1. **Lack of Employment Opportunities (Push Factor):** Rural areas often suffer from disguised unemployment and seasonal employment, especially in the agricultural sector. Lack of diverse job opportunities forces people, particularly the youth, to move to cities in search of better livelihoods.
2. **Better Economic Prospects (Pull Factor):** Urban areas are perceived to offer higher wages, more diverse job opportunities in industries and services, and greater potential for economic mobility. This economic attraction is a primary driver of migration.
3. **Access to Better Education and Health Facilities (Pull Factor):** Cities generally have a higher concentration of quality educational institutions (schools, colleges) and healthcare facilities (hospitals, clinics). Families often migrate to provide better opportunities for their children and access superior medical care.
4. **Poverty and Agricultural Distress (Push Factor):** Factors like fragmentation of landholdings, low agricultural productivity, crop failures due to uncertain monsoons, and indebtedness force many small and marginal farmers to abandon agriculture and seek alternative employment in cities.

### Quick Tip

When discussing migration, always use the 'Push-Pull' framework. Clearly identify which factors are pushing people away from their origin and which are pulling them towards the destination. This is a fundamental concept in migration studies.

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## 21. Define clustered settlements and mention the areas where more clustered settlements are found in India.

### Answer:

#### Definition of Clustered Settlements:

A clustered settlement, also known as a compact or nucleated settlement, is a type of settlement where houses and buildings are built very close to each other. The living area is distinct and separated from the surrounding farms, pastures, and woodlands. This pattern often develops around a central nucleus like a marketplace, a religious site, or a water source, with streets radiating outwards. It fosters a close-knit community life.

#### Areas in India:

Clustered settlements are commonly found in highly fertile alluvial plains and in regions where security is a major concern. Key areas in India include:

- **The Indo-Gangetic Plains:** The fertile plains of North India, stretching from Punjab to West Bengal, have abundant water and support intensive agriculture, leading to the development of large, compact villages.
- **Coastal Plains:** The fertile deltas and coastal plains, such as those in Andhra Pradesh and Tamil Nadu, also feature clustered settlements.
- **Bundelkhand and Nagaland:** In these regions, the need for defense and security has historically promoted the development of compact, fortified villages, often on hilltops or other defensible sites.

### Quick Tip

Associate settlement types with geography. Clustered/compact settlements are linked to fertile plains (for resource sharing) and areas needing defense. Dispersed settlements are linked to hilly terrains or areas with extensive farms.

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## 22. Mention the chief characteristics of Hill Area Development Programme in India.

### Answer:

The Hill Area Development Programme (HADP) was initiated during the Fifth Five-Year Plan to address the specific problems of hill areas. Its chief characteristics are:

1. **Area-Specific Approach:** The programme is designed to address the unique geographical and socio-economic conditions of hill regions, which are distinct from the plains.
2. **Focus on Eco-Preservation:** A key objective is the sustainable development of hill areas by maintaining ecological balance. It emphasizes afforestation, soil conservation, and watershed management to prevent environmental degradation.
3. **Development of Local Resources:** The programme aims to develop the local economy by harnessing indigenous resources in an environmentally sustainable manner. This includes promoting sectors like horticulture, animal husbandry, poultry, and small-scale and village industries.
4. **Involvement of Local Communities:** It stresses the importance of involving local people in the planning and implementation of development schemes to ensure the programmes are suited to their needs and foster a sense of ownership.
5. **Infrastructure Development:** The programme includes provisions for developing infrastructure that is crucial for hill areas, such as ropeways, specialized transport, and communication networks, while minimizing environmental damage.

#### Quick Tip

For questions on development programmes, remember the core objectives: Who is the target (hill people)? What is the main goal (sustainable development)? How is it achieved (eco-preservation, local resource use)? This structure helps formulate a complete answer.

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**23. "Human geography is the study of the changing relationship between the un-resting man and the unstable earth." Examine this statement.**

#### Answer:

This statement, given by geographer Ellen Churchill Semple, a proponent of environmental determinism, encapsulates the dynamic and core essence of human geography. It portrays human geography not as a static study, but as an analysis of the continuous, evolving interaction between two dynamic forces: human beings and the planet Earth.

#### 1. The Concept of 'Unresting Man':

The term "unresting man" refers to the fact that human societies are never static. Humans are constantly active, creative, and mobile. This restlessness is evident in:

- **Technological Advancement:** Humans continuously develop new technologies, from the invention of the wheel to artificial intelligence, which alter how they interact with the environment. For example, irrigation technology turned deserts into farmland.
- **Cultural Evolution:** Human culture, social norms, economic systems, and political structures are always evolving, which changes land use patterns, settlement forms, and resource utilization.
- **Mobility and Migration:** Humans have always been on the move, exploring, colonizing, and connecting different parts of the world, thereby constantly reshaping demographic and cultural landscapes.

## 2. The Concept of 'Unstable Earth':

The term "unstable earth" signifies that the physical environment is not a passive, unchanging backdrop. The Earth itself is a dynamic system:

- **Geological Processes:** Plate tectonics cause earthquakes and volcanic eruptions, while erosion and deposition constantly reshape landforms.
- **Climatic Fluctuations:** The climate changes over both long and short timescales (e.g., ice ages, El Niño events, and current anthropogenic climate change), impacting habitats and human life.
- **Ecological Changes:** Ecosystems are dynamic; they evolve and are subject to natural disasters like floods, droughts, and fires.

## 3. The 'Changing Relationship':

The core of the statement lies in the "changing relationship." This relationship has been interpreted differently over time by various geographical schools of thought:

- **Environmental Determinism:** Early geographers like Semple argued that the "unstable earth" largely determines the activities of "unresting man." For example, they believed that climate dictated the level of civilizational development.
- **Possibilism:** Later, the possibilist school argued that the environment offers a range of possibilities, and "unresting man" has the freedom to choose how to respond based on their culture and technology.
- **Neo-determinism:** This modern viewpoint strikes a balance, suggesting that while humans can modify their environment, they must operate within the limits set by nature to avoid negative consequences (e.g., resource depletion, climate change). The relationship is a two-way interaction.

In conclusion, the statement is a profound summary of human geography. It rightly emphasizes the dynamic interplay where "unresting man" adapts to, modifies, and is in turn influenced by the ever-changing "unstable earth." The study of this complex and constantly evolving relationship remains the central focus of the discipline.

### Quick Tip

When asked to 'examine' a statement, break it down into its key components (here, 'unresting man', 'unstable earth', 'changing relationship'). Define each part, provide examples, and discuss different perspectives or schools of thought related to the statement to build a comprehensive argument.

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(OR)

**What do you mean by sub-fields? Mention the main sub-fields of human geography.**

**Answer:**

**Meaning of Sub-fields:**

In any broad academic discipline, a 'sub-field' is a specialized area of study that focuses on a specific aspect or theme within that discipline. Human geography, being a vast field concerned with all aspects of human activity in spatial context, is divided into several sub-fields. These sub-fields allow for a more detailed and focused investigation of particular phenomena, while still being interconnected and contributing to the holistic understanding of the human-environment relationship.

### **Main Sub-fields of Human Geography:**

The main sub-fields of human geography explore the spatial patterns and processes related to different facets of human life. The key sub-fields are:

1. **Social Geography:** This sub-field is concerned with the spatial dimensions of society and social phenomena. It studies topics like population distribution and density, health and disease patterns, social justice, crime, education, and the spatial aspects of social groups.
2. **Political Geography:** It studies the relationship between geography, power, and politics. It examines the spatial organization of political units such as states, the creation and significance of boundaries, electoral patterns, geopolitics, and conflicts over territory and resources.
3. **Economic Geography:** This sub-field focuses on the location, distribution, and spatial organization of economic activities. It includes the study of agriculture, industry, services, trade, transport, and resource management, seeking to understand why economic activities are located where they are.
4. **Population Geography:** This is the study of the ways in which spatial variations in the distribution, composition, migration, and growth of populations are related to the nature of places. It is closely related to demography.
5. **Settlement Geography:** This sub-field studies human settlements in their spatial context. It analyzes the site, situation, form, function, and hierarchy of both rural and urban settlements, and the processes that lead to their growth or decline.
6. **Cultural Geography:** It investigates the spatial distribution of cultural traits and practices, such as language, religion, ethnicity, customs, and identities. It explores how culture shapes landscapes and how landscapes, in turn, influence culture.

#### **Quick Tip**

To remember the sub-fields, link them to the major domains of social science: Social Geography (Sociology), Political Geography (Political Science), Economic Geography (Economics), etc. This helps in understanding the scope of each sub-field and their interdisciplinary nature.

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**24. What do you mean by land degradation? Suggest measures for minimizing land degradation in India.**

**Answer:**

**Meaning of Land Degradation:**

Land degradation is the process of decline in the quality and productive capacity of land, making it less fit for its intended use. It is a reduction in the land's ability to provide ecosystem services and support agriculture, forestry, or human habitation. This deterioration can be caused by a combination of natural processes and, more significantly, unsustainable human activities. The main forms of land degradation include:

- **Soil Erosion:** Removal of the fertile topsoil by wind or water.
- **Salinization and Alkalinization:** Accumulation of excess salts in the soil, often due to improper irrigation, making it infertile.
- **Waterlogging:** Saturation of the soil with water, which harms crop roots.
- **Desertification:** The process by which fertile land becomes desert, typically as a result of drought, deforestation, or inappropriate agriculture.
- **Loss of Soil Nutrients:** Depletion of essential nutrients due to continuous cropping without replenishment.

**Measures for Minimizing Land Degradation in India:**

Several measures can be adopted to control and minimize land degradation:

1. **Afforestation and Control of Deforestation:** A massive tree plantation drive is one of the most effective ways to combat land degradation. Trees bind the soil, reduce wind and water erosion, and improve soil fertility. Strict enforcement of laws against illegal deforestation is also crucial.
2. **Improved Agricultural Practices:**
  - **Contour Ploughing and Terracing:** In hilly areas, ploughing along contours and creating terraces can reduce the speed of water flow and prevent soil erosion.
  - **Crop Rotation and Strip Cropping:** Planting different crops in succession or in alternate strips helps maintain soil fertility and reduces erosion.
3. **Proper Management of Grazing:** Overgrazing by livestock removes the protective vegetation cover, leading to soil erosion. This can be managed by creating dedicated grazing lands, promoting stall-feeding, and implementing rotational grazing.
4. **Creation of Shelterbelts:** Planting rows of trees and shrubs along the edges of fields, especially in arid and coastal areas, breaks the force of the wind and prevents wind erosion.
5. **Sustainable Water Management:**
  - **Drip and Sprinkler Irrigation:** Adopting efficient irrigation methods can prevent problems of waterlogging and salinization that arise from traditional flood irrigation.
  - **Watershed Management:** This involves conserving soil and water resources in a watershed through measures like building check dams and percolation tanks.
6. **Control of Mining and Industrial Activities:** Land degradation from mining can be minimized by reclaiming mined areas through backfilling and revegetation. Treating industrial effluents before discharging them can prevent soil and water contamination.

### Quick Tip

For questions suggesting 'measures' or 'solutions', structure your answer with clear, actionable points. Start each point with a strong heading (e.g., 'Afforestation', 'Improved Agricultural Practices') and then briefly explain how that measure helps solve the problem.

(OR)

**In which State is Indira Gandhi Canal Command Area located? What is its contribution for the promotion of sustainable development in India?**

**Answer:**

**Location:**

The Indira Gandhi Canal Command Area is predominantly located in the north-western part of the state of **Rajasthan**. It was designed to utilize the waters of the Ravi and Beas rivers to irrigate the arid and semi-arid lands of the Thar Desert.

**Contribution to Sustainable Development:**

The Indira Gandhi Canal project has had a profound impact on the region. Its contribution to sustainable development can be analyzed through its ecological, economic, and social impacts, though it has also presented challenges that require careful management.

**1. Positive Contributions:**

- **Ecological Sustainability:** The availability of water has led to large-scale afforestation and pasture development programmes. This has increased the green cover in the desert, which in turn has helped in stabilizing sand dunes, reducing wind erosion, and moderating the micro-climate.

- **Economic Sustainability:** - **Agricultural Transformation:** The canal has transformed the subsistence-based agricultural economy into a flourishing commercial one. It enabled the cultivation of water-intensive crops like wheat, rice, cotton, and groundnut in an arid region, leading to a significant increase in agricultural production and productivity. - **Livelihood Security:** The increase in agricultural activities created employment opportunities, enhanced farmers' incomes, and improved the overall economic condition of the people, reducing poverty and out-migration. - **Social Sustainability:** The canal has provided clean water for drinking and domestic use, which has improved the health and quality of life of the residents. The increased prosperity has also led to the development of better social infrastructure like schools and hospitals.

**2. Challenges and Measures for True Sustainability:**

While the project brought immense benefits, the intensive irrigation in an arid environment led to serious problems like waterlogging and soil salinization in many areas, which is unsustainable in the long run. To counter these negative impacts and promote genuine sustainable development, the following measures have been suggested and are being implemented:

- **Strict Implementation of Water Policy:** Adopting a 'warabandi' system (equitable water

distribution rota) to ensure water reaches all farmers and to prevent overuse by those at the head of the canal.

- **Promoting Water-Efficient Agriculture:** Encouraging farmers to cultivate crops that require less water and are suitable for the arid environment. The adoption of drip and sprinkler irrigation is also being promoted.

- **Land Development and Management:** Programmes for land leveling, lining of water-courses to reduce seepage, and reclamation of waterlogged and salinized lands are crucial.

- **Community Participation:** Involving farmers and local communities in the management of water resources to foster a sense of responsibility and ensure equitable and sustainable use.

In essence, the Indira Gandhi Canal is a monumental engineering feat that has positively impacted the region. However, its long-term success and contribution to sustainable development depend on the effective management of its negative ecological consequences through careful planning and community involvement.

#### Quick Tip

When discussing a large development project, a balanced answer is key. Highlight both the significant positive contributions (the 'pros') and the resulting challenges or negative impacts (the 'cons'). Conclude by suggesting measures for mitigation, which directly addresses the concept of 'sustainability'.

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**25. Show the following by suitable symbols in the given outline map of India (on Page 9) and write their names also:**

**Answer:**

**(i) The State with the highest female literacy.**

**Name:** Kerala

**Location on Map:** Shade or outline the entire state of Kerala. Kerala is the long, narrow state located on the southwestern Malabar Coast of India.

**(ii) Capital of this State.**

**Name:** Thiruvananthapuram (also known as Trivandrum)

**Location on Map:** Mark a distinct point (e.g., a dot with a circle around it) at the southern tip of Kerala. Thiruvananthapuram is the southernmost city of the state.

**(iii) An important Iron and Steel plant of Jharkhand State.**

**Name:** Jamshedpur (Tata Steel Plant) or Bokaro Steel Plant

**Location on Map:**

- **For Jamshedpur:** Mark a point (e.g., a small triangle) in the southeastern part of Jharkhand. It is located at the confluence of the Subarnarekha and Kharkai rivers.

- **For Bokaro:** Mark a point in the eastern part of Jharkhand, east of the state capital, Ranchi.

(Either Jamshedpur or Bokaro is a correct and prominent example.)

**(iv) State with largest production of cotton.**

**Name:** Gujarat

**Location on Map:** Shade or outline the entire state of Gujarat. Gujarat is India's western-most state, located on the Arabian Sea coast.

**(v) Petroleum producing State in Eastern India.**

**Name:** Assam

**Location on Map:** Shade or outline the entire state of Assam. Assam is a major state in Northeastern India, situated south of the eastern Himalayas along the Brahmaputra and Barak River valleys.

**Quick Tip**

For map questions, it's crucial to have a strong mental map of India's states and major cities. Practice by regularly marking key locations on blank outline maps. For economic geography questions (like crops, minerals, and industries), associate each product with its leading state(s), e.g., Cotton-Gujarat, Jute-West Bengal, Steel-Jharkhand/Odisha/Chhattisgarh, Petroleum-Maharashtra(offshore)/Gujarat/Assam.