## **UPSC Mains (2025)**

## **General Studies: Paper – I**

## **Model Answers**

### Section - A

Q.1 Trace the transition of Indian literature from religious-philosophical themes to socio-political consciousness. How did literature serve as an instrument of resistance during colonial rule?

Ans: Indian literature has evolved from ancient religious and philosophical discourses to expressions of socio-political realities. Initially rooted in spiritual and metaphysical concerns, literature gradually reflected social consciousness and later became a significant tool of resistance during colonial rule.

## From Spirituality to Social Awareness

- 1. Ancient Period: Early literature like the Vedas, Upanishads, and epics such as *Ramayana* and *Mahabharata* centered around dharma, moksha, and ethical conduct. These texts were deeply philosophical and religious in nature.
- 2. Bhakti and Sufi Movements: Between the 13th and 17th centuries, vernacular saints like Kabir, Tulsidas, and Guru Nanak wrote devotional poetry that also challenged caste hierarchies, ritualism, and religious orthodoxy. Literature became more people-centric, voicing concerns of the marginalized.
- 3. Colonial Era A Turning Point: The advent of English education, print culture, and exposure to liberal ideas shifted the focus towards social reform and nationalism. Thinkers like Raja Ram Mohan Roy and Ishwar Chandra Vidyasagar used literature to campaign against social evils like sati and child marriage.

#### Literature as Resistance under Colonial Rule

- 1. Nationalist Inspiration: Bankim Chandra's "Anandamath" and the song *Vande Mataram* became symbols of patriotic awakening. Literature inspired collective identity and unity.
- 2. Critique of Colonial Exploitation: Writers like Premchand depicted rural distress and class oppression in works like *Godaan*. His stories exposed the impact of colonial economic policies on the poor.
- **3. Regional Voices of Protest**: In Tamil, Subramania Bharati wrote fiery poems advocating women's rights and nationalism. Rabindranath Tagore critiqued both colonialism and unthinking nationalism through nuanced storytelling. N
- **4. Progressive Writers' Movement**: During the 1930s and 1940s, writers like Faiz Ahmed Faiz and Mulk Raj Anand portrayed class struggles and used literature as a revolutionary force.

The transition of Indian literature mirrors the evolution of Indian society—from seeking spiritual enlightenment to demanding social justice and political freedom. Under colonial rule, literature became a powerful medium to resist oppression, awaken the masses, and preserve cultural identity, thus playing a crucial role in India's freedom movement.

## Q. 2 "The Cabinet Mission Plan was a missed opportunity to forge unity amidst diversity in India." Do you agree? Substantiate with arguments.

Ans: The Cabinet Mission Plan of 1946 was a crucial British initiative aimed at **negotiating** the transfer of power to Indian leadership while maintaining the unity of India. While the plan provided a framework to accommodate India's religious and regional diversity, it ultimately failed to prevent Partition. This has led many to view it as a missed opportunity to forge unity amidst diversity.

## **Arguments Supporting the Statement**

#### 1. Failure to Achieve Political Consensus

- The plan was rejected by the Muslim League due to the lack of an explicit provision for Pakistan.
- The Congress accepted it conditionally, leading to deep distrust between the two major political parties.

#### 2. Overcomplicated Structure

- The proposed three-tier federation (Union, Group, Province) with **groupings** like Group B and Group C, primarily Muslim-majority, was seen as **confusing** and impractical.
- The grouping idea created suspicion among provinces like Assam and **Punjab**, which feared domination by larger groups.

#### 3. Lack of Trust and Clarity

- The Mission failed to build trust among Indian political actors, especially between the Congress and the Muslim League.
- Vague definitions and ambiguous mechanisms for opting out of groupings increased political friction.

#### 4. Rise of Communal Politics

Instead of fostering unity, the failure of the plan widened the **communal divide**, resulting in Direct Action Day (August 1946) and escalating **violence**.

### **Arguments Against the Statement**

- 1. Genuine Attempt at Unity
  - The plan rejected the idea of Partition and envisioned a united India with autonomy for provinces and minority safeguards.
  - It tried to balance Congress' vision of unity and Muslim League's demand for autonomy.

#### 2. Political Rigidities, Not the Plan Itself, Led to Failure

- The failure was more due to the inflexibility of the Congress and Muslim League, not the plan's structure.
- o Personal ambitions and mutual suspicion were major roadblocks.

The Cabinet Mission Plan was a well-intentioned but ultimately flawed attempt at **preserving** India's unity. Its failure reflected the deep-seated communal mistrust and **political** rigidity of the time. While the plan had the potential to forge unity amidst **diversity**, it turned into a missed opportunity due to poor implementation and lack of consensus, paving the way for Partition.



Q.3 "Women's participation in India's freedom struggle was not limited to support roles but was central to mobilization and resistance." Analyse with reference to different phases and leaders.

Ans: The Indian freedom struggle was not just a male-led movement. Indian women played a central, active, and dynamic role, not only by supporting but also by leading agitations, organizing protests, and confronting colonial authority. Their involvement, across different phases, reflected their transition from the domestic sphere to the public-political arena, making them key agents of resistance and national awakening.

## 1. Early Phase (Pre-1857 – 1900)

- Rani Lakshmibai of Jhansi was a military leader during the 1857 Revolt, symbolizing early resistance by women.
- Begum Hazrat Mahal of Awadh also led armed resistance against British annexation.
- These women directly challenged colonial rule and became enduring symbols of patriotism.

## 2. Moderates and Social Reform Phase (1885–1915)

- Women's participation was often channeled through social reform movements led by leaders like Raja Ram Mohan Roy, Ishwar Chandra Vidyasagar, and MG Ranade.
- Pandita Ramabai and Sarala Devi Chaudhurani linked women's emancipation with nationalism, emphasizing education and organization.

### 3. Gandhian Era (1915–1942)

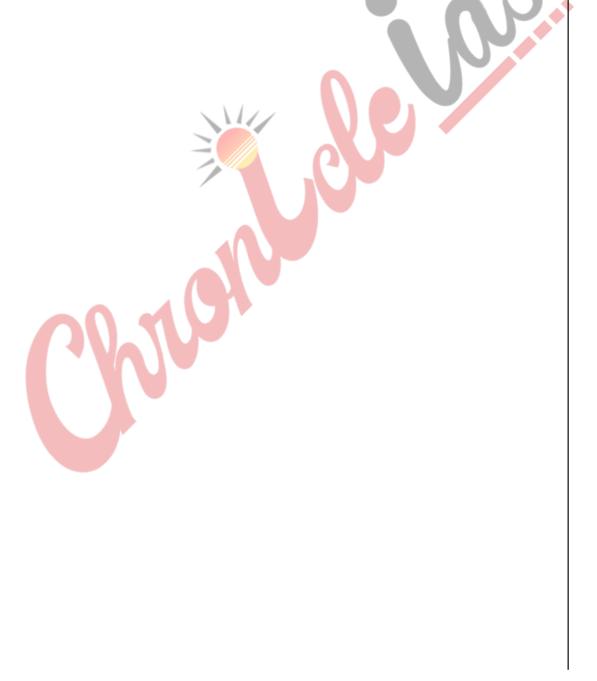
- O Gandhi's inclusive mass movements—Non-Cooperation (1920), Civil Disobedience (1930), and Quit India (1942)—brought women into mainstream political activism.
- Kasturba Gandhi, Sarojini Naidu, Kamala Nehru, Aruna Asaf Ali, and Usha Mehta emerged as prominent leaders.
  - Sarojini Naidu led the Salt March after Gandhi's arrest.
  - Aruna Asaf Ali hoisted the flag at Gowalia Tank Maidan during Quit India.
  - Usha Mehta ran a secret radio sjtation, spreading nationalist messages.

## 4. Revolutionary and Militant Struggles/

• Kalpana Dutt and Pritilata Waddedar were part of the armed resistance with Surya Sen's Chittagong group.

 Captain Lakshmi Sehgal led the Rani Jhansi Regiment of the Indian National Army (INA) under Subhas Chandra Bose, showing women's role in militarized resistance.

Women in India's freedom struggle were **not passive spectators** or mere **supporters**. Across different phases—from early rebellions to Gandhian mass movements and **revolutionary** actions—they emerged as organizers, leaders, and fighters. Their **participation** was central to mobilizing the masses and redefining the political **landscape**, laying the foundation for women's empowerment in independent India.



Q.4 "Globalization has widened inequality in Indian society." Discuss with reference to rural-urban, digital, and class-based divisions.

Ans: Globalization, characterized by the increased movement of goods, services, capital, and ideas across borders, has brought economic growth and integration.

However, in India, the benefits of globalization have been unevenly distributed, leading to widening inequalities across rural-urban, digital, and class-based dimensions.

#### 1. Rural-Urban Divide

India's major IT hubs like Bengaluru and Hyderabad thrive due to **globalization**, but districts in states like Bihar or Odisha remain **economically** backward.

- Economic Disparities: Urban areas have attracted most of the foreign investment and industrial growth, while rural areas still depend heavily on agriculture with low productivity.
- o Infrastructure Gap: Urban regions enjoy better access to healthcare, education, transport, and employment, unlike underdeveloped rural zones.
- Migration Patterns: Rural youth migrate to urban areas for opportunities, often ending up in the informal sector with poor working conditions.

#### 2. Digital Divide

According to NFHS-5, only about 33% of rural women have ever used the internet compared to 57% of urban men.

- Unequal Access to Technology: Globalization has brought a digital revolution, but access remains limited in rural and low-income areas.
- Education & Employment Gaps: Online learning and remote jobs favor those with digital literacy and internet access, excluding the digitally poor.
- Gender Disparity: Women, particularly in rural areas, face more barriers in accessing digital tools.

## 3. Class-Based Inequality

Oxfam India reports that the top 1% of Indians own over 40% of the country's wealth.

• Wealth Concentration: Globalization has disproportionately benefited the upper-middle and corporate classes, widening the gap from the working poor.

- Labor Market Fragmentation: While skilled workers in IT and finance gained, unskilled workers remained vulnerable to job loss and wage stagnation.
- Consumption Inequality: The rise of a consumerist elite stands in contrast to subsistence-level living for millions.

While globalization has brought progress, it has also amplified existing inequalities in India. Without inclusive policies, investments in rural development, digital infrastructure, and social protection, globalization risks deepening social and economic fault lines. Thus, equitable globalization must be made a priority to ensure growth with justice.



## Q.5 Define rock glacier. Discuss the various forms and characteristics of rock glaciers.

**Ans:** A Rock Glacier is a geomorphological feature composed of a mixture of ice and rock debris, which moves slowly downslope due to internal deformation of ice or gravity-driven creep.

These formations are characteristic of periglacial and high-altitude alpine **environments**, particularly where permafrost or interstitial ice supports the mass of debris.

## Rock glaciers are classified based on their origin, composition, and morphology:

Classification	Type	Description
Based on Origin	Periglacial Rock Glaciers	- Develop in permafrost zones- Movement due to frozen ground creep and ice segregation
	Glacial-derived Rock Glaciers	- Form from decaying glaciers- Ice core covered by talus or moraine debris
	Active Rock Glaciers	- Contain significant ice- Movement of 1–2 m/year- Surface ridges, furrows, steep fronts
Based on Activity	Inactive Rock Glaciers	- Contain remnant ice- Minimal or no movement
	Relict Rock Glaciers	- Ice-free- Stable landforms from past climatic conditions
	Tongue-shaped	- Narrow, elongated- Resemble glacier snouts
Based on	Lobate	- Broad, bulging fronts- Fan-like appearance
Morphology	Complex Rock Glaciers	- Mix of lobate and tongue-shaped forms- Occur in varied terrain

### **Characteristics of Rock Glaciers**

#### 1. Composition

- Predominantly composed of coarse, angular rock debris, typically resulting from frost weathering or rockfall.
- o Contain various forms of ice, including:
  - Interstitial ice
  - Ice lenses
  - Buried glacial ice

#### 2. Surface Features

• Surface is marked by distinct geomorphic features such as:

- Longitudinal ridges
- Transverse furrows
- Flow lobes
- Often terminate in a **steep snout or front**, indicative of slow, creeping **movement**.

#### 3. Movement

- Exhibit **slow movement**, ranging from **centimeters to meters per year**.
- Movement occurs through:
  - Plastic deformation or viscous flow of internal ice
  - Influenced by ice content, slope gradient, and thermal conditions

#### 4. Thermal Regime

- Exist in **sub-zero thermal environments**, typically found at altitudes of:
  - 2,500-5,000 meters in tropical mountain regions like the Himalayas or Andes.
- Thermal regime is controlled by:
  - Air temperature
  - Snow cover
  - Solar radiation

### 5. Hydrological Significance

- Serve as **natural reservoirs** of frozen water.
- In arid and semi-arid mountain regions, the melting of internal ice:
  - Contributes significantly to streamflow, especially during dry seasons.

#### 6. Geomorphological Role

- O Play an important role in mountain geomorphology by:
  - Facilitating mass wasting
  - Influencing slope stability
  - Aiding in sediment transport across high-altitude terrains

Rock glaciers are critical indicators of past and present periglacial activity, and their study provides valuable insights into climate change, mountain hydrology, and **permafrost dynamics**. As India's Himalayan cryosphere undergoes transformation due to rising **temperatures**, understanding rock glaciers becomes essential for disaster preparedness, water security, and mountain ecosystem management.

Q.6 The role of women has expanded in the era of globalization, yet gender disparities persist. Evaluate the evolving status of women in Indian society.

Ans: Globalization has opened new avenues of participation for women across sectors economic, political, social, and cultural. Women in India have increasingly stepped into roles once dominated by men, including entrepreneurship, STEM careers, and politics.

However, persistent gender disparities in access, opportunity, and outcomes reveal that this progress is neither uniform nor equitable.

### **Expansion of Women's Role in the Globalization Era**

#### **Economic Participation**

- Increased female presence in the workforce, especially in service sectors like IT, retail, education, and health.
- Rise of women entrepreneurs: Over 20% of MSMEs in India are owned by women.
- Growth of gig economy and remote work opportunities have benefited women with mobility or domestic constraints.
- Education and Skill Development
- Female Gross Enrolment Ratio (GER) in higher education is 46.3% (2022-23) often exceeding males in arts and life sciences.
- Digital inclusion efforts under schemes like PMGDISHA are empowering women with digital literacy.
- Political Empowerment
- 14% of MPs (74) in the 18th Lok Sabha are women, significant increased from 5% in Ist Lok Sabha.
- 33% reservation in Panchayati Raj Institutions has led to over 1.45 million **elected** women representatives, many of whom have brought grassroots change.

#### **Legal and Institutional Safeguards**

- Laws like:
  - Maternity Benefit (Amendment) Act, 2017
  - o POSH Act, 2013
  - Criminal Law (Amendment) Act, 2013

## have expanded the protective legal framework for working women.

#### **Persistent Gender Disparities**

#### 1. Labour Force Participation

- o India's female labour force participation rate is just ~25% (PLFS 2023), significantly lower than global average (~47%).
- Rural Female LFPR: It increased sharply from 24.6% in 2017-18 to 47.6% in 2023-24, (~69% growth)

- Urban Female LFPR: It rose modestly from 20.4% to 25.4% (~25% growth)
- o Informal work and lack of social security dominate women's employment.

### 2. Wage Gap and Economic Inequality

- Gender Pay Gap: Women earn 18.2% less than men on average (Monster Salary Index, 2019).
- Glass ceiling: Women remain underrepresented in leadership roles. Only 15% of board members in NSE-listed companies are women (SEBI, 2023).

### 3. Health and Nutrition Inequality

- Anaemia affects 57% of women aged 15–49 (NFHS-5), revealing deeprooted nutritional disparity.
- O Maternal mortality improved (MMR: 97/100,000), but gaps remain in **rural** and tribal areas.

### 4. Societal and Cultural Barriers

- Patriarchal norms, early marriage (23% married before 18), and gender-based violence (NCRB 2022: over 4 lakh cases of crimes against women) hinder full societal participation.
- O Digital Gender Divide: Women account for only 36% of internet users in rural India.

#### **Way Forward**

- Bridging digital and skill gaps for greater inclusion in tech and new economy sectors.
- Strengthening workplace safety and flexibility to encourage higher **participation**.
- Cultural transformation through education and media to break stereotypes.
- Expanding childcare and maternity support, especially in informal sectors.

While globalization has acted as a catalyst in expanding opportunities for Indian women, structural inequalities, social barriers, and economic constraints continue to limit their full potential. The evolving status of women reflects both empowerment and exclusion—a paradox that demands sustained efforts from the state, society, and markets alike. Only a gender-just society can ensure that the gains of globalization are inclusive and equitable.

#### **Q.7** How does the Indian definition of secularism differ from the Western one? Discuss its relevance in contemporary times.

Secularism, at its core, implies the separation of religion from the affairs of the Ans: state. However, its interpretation and application differ across socio-political contexts. While the Western model primarily focuses on a strict separation of Church and State, the Indian model of secularism is rooted in the idea of equal respect for all religions rather than their exclusion from public life.

#### Difference between Indian and Western Secularism:

#### **Philosophical Foundation:**

- Western Secularism (especially in France and the USA) evolved during the Enlightenment as a reaction against theocratic dominance. It mandates a "wall of separation" between religion and state.
- Indian Secularism is a product of India's pluralistic society. It does not erect a wall but seeks principled distance from all religions to ensure religious harmony.

#### **Role of the State:** 2.

- e of the State:

  In the West, the state avoids religious involvement—no state funding for religious institutions or interference in religious practices.
- In India, the state can regulate or reform religious practices to ensure equality and social justice (e.g., abolition of untouchability, regulation of temple entry, triple talaq verdict).

#### **Religious Pluralism vs. Homogeneity:** 3.

- Western secularism often presumes a predominantly Christian demographic, making uniform treatment feasible.
- Indian secularism acknowledges and accommodates deep religious diversity, thus emphasizing sarva dharma sambhava (equal respect to all religions).

#### 4. **Constitutional Practice:**

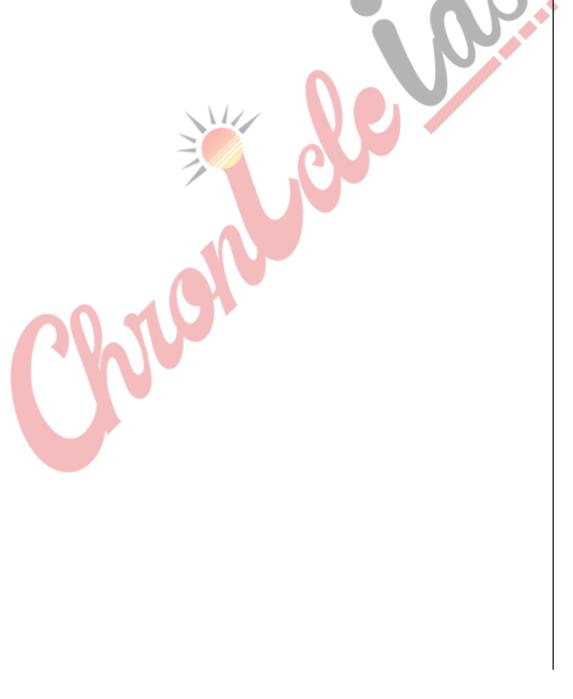
- The First Amendment in the US bars establishment of religion.
- In contrast, the Indian Constitution (via the 42nd Amendment) explicitly declares India a secular state while guaranteeing freedom of religion (Articles 25-28) and non-discrimination (Article 15).

#### **Relevance in Contemporary Times:**

- Rising Religious Polarization: Indian secularism plays a vital role in countering communal tensions and promoting interfaith harmony.
- Uniform Civil Code Debate: The Indian model allows space for discussion on personal laws while ensuring constitutional morality and gender justice.

- Global Relevance: In a world facing rising identity politics, the Indian model offers a more inclusive and accommodative vision of secularism.
- **Judiciary's Role:** Supreme Court judgments (e.g., S.R. Bommai case) have **reinforced** secularism as a basic structure of the Constitution.

Indian secularism, though complex and sometimes contested, is a living principle suited to India's unique cultural fabric. Unlike the Western model that emphasizes separation, **India's** model emphasizes equidistance and engagement with all religions, making it deeply relevant in a multi-religious democracy striving for unity in diversity.



## Q.8 Examine the geographical and urban planning factors that exacerbate heatwave conditions in Indian cities. Suggest sustainable mitigation strategies."

Ans: Indian cities are increasingly facing severe and prolonged heatwaves, marked by extreme temperatures, minimal night-time cooling, and growing health hazards. While geography contributes to this pattern, it is the urban planning deficiencies and anthropogenic activities that have critically intensified heatwave impacts.

## A multi-pronged understanding is essential for building resilient urban futures.

#### I. Geographical Factors Exacerbating Heatwaves

- 1. Latitudinal Location: Most Indian cities lie in tropical/subtropical belts, receiving high solar radiation, especially during pre-monsoon months.
- 2. Climate Change and Warming Trends: Rising average and peak temperatures due to global warming, particularly in northern and central India with continental climate.
- 3. Loss of Natural Vegetation: Deforestation and wetland loss around urban areas reduce natural cooling and disrupt microclimatic balance.
- 4. Topographical Constraints: Cities in valleys (e.g., Dehradun) face restricted airflow, resulting in temperature entrapment and increased heat stress.

### II. Urban Planning Deficiencies Intensifying Heatwaves

- 1. Urban Heat Island (UHI) Effect: Dense concrete structures and roads retain heat, causing high night-time temperatures.
- 2. Lack of Green and Blue Spaces: Many cities have inadequate green cover (below WHO's 9 sq.m. per capita) and degraded water bodies.
- 3. Unplanned Urban Expansion: Rapid sprawl without ventilation corridors or **climate**-sensitive zoning leads to poorly ventilated heat pockets.
- 4. Informal Settlements and Population Density: Slums and overcrowded areas lack insulation, airflow, and cooling systems, making residents highly vulnerable.
- 5. Vehicular Emissions and Energy Use: High fossil fuel dependence and air conditioner usage contribute to localized warming and poor air quality.
- 6. Inefficient Building Design: Heat-retaining materials, lack of shading, and no passive cooling increase indoor discomfort.

#### **III. Sustainable Mitigation Strategies**

- Climate-Sensitive Urban Design: Promote reflective roofing, green buildings, shaded streets, and ventilation corridors.
- Green and Blue Infrastructure: Expand parks, rooftop gardens, and rejuvenate water bodies.
- **Heat Action Plans (HAPs):** Institutionalize city-specific HAPs with early **warning** systems and health responses.

- Sustainable Mobility: Promote electric vehicles, cycling, and public transport.
- **Community Involvement:** Engage citizens in greening drives, awareness, and housing retrofits.
- Integrated Policy Framework: Include heat adaptation in Smart City Missions and climate action plans.

Heatwaves are no longer isolated weather events but a chronic urban hazard. A shift **toward** ecosystem-based, participatory, and climate-resilient urban planning is **imperative** to **mitigate** future risks.



## Q.9 The population dividend in India will remain theoretical till our manpower becomes more educated, aware and creative. Discuss.

Ans: India, with nearly 65% of its population below 35 years, holds the world's largest youth demographic. This profile presents a historic opportunity—the demographic dividend—to accelerate economic growth. However, demography alone is not destiny. The real challenge lies in transforming this potential into productivity through education, skills, and empowerment.

### Theoretical vs. Realised Demographic Dividend

Ademographic dividend becomes meaningful only when the working-age population contributes to higher economic output. This requires:

- Education for foundational knowledge and adaptability,
- Awareness for informed choices and civic participation,
- Creativity and innovation for competing in a knowledge-driven global economy.

Without these, the dividend risks becoming a demographic burden, leading to unemployment, underemployment, and social unrest.

## Challenges in Realising the Demographic Dividend

#### 1. Educational Deficit

- ASER reports highlight poor learning outcomes at the primary level.
- Higher education suffers from rote learning, outdated curricula, and low employability.

#### 2. Skill Mismatch

- A large share of youth lack industry-relevant skills, especially in digital and vocational domains.
- Formal skill training reaches only a small fraction of the workforce (PLFS data).

#### 3. Low Human Capital Investment

India ranks 116th in the Human Capital Index (World Bank, 2020), reflecting underinvestment in health and education.

### 4. Gender and Regional Disparities

- Female labour force participation remains low (~25%).
- Regional imbalances in job creation and education limit inclusive growth.

#### 5. Weak Innovation Ecosystem

O Despite improving ranks in the Global Innovation Index, low R&D **investment** and limited academia-industry collaboration hinder innovation.

#### Pathways to Harness the Demographic Dividend

#### 1. Education Reform

 Implement NEP 2020 effectively; focus on critical thinking, STEM, and multilingual education.

### 2. Skill Development

- Align Skill India Mission with local economic needs.
- o Promote public-private partnerships for dynamic, scalable training.

### 3. Civic and Financial Awareness

- Introduce civic education and financial literacy at early stages.
- Use media to promote health, rights, and sustainable practices.

#### 4. Fostering Innovation

 Boost R&D funding, support start-ups via Startup India and Atal Innovation Mission.

#### 5. Inclusive Participation

- Empower women through education, safety, and workplace support.
- Address regional disparities through infrastructure and rural entrepreneurship.

India's demographic dividend is a window of opportunity that demands holistic **investment** in human capital. To convert this into sustained growth, India must enable its youth to think, innovate, and lead, transforming demographic potential into national prosperity.

## Q.10 Discuss the factors affecting atmospheric pressure and how they shape local and global weather conditions.

Ans: Atmospheric pressure is the force exerted by the weight of the air above a unit area. It is a fundamental factor influencing the Earth's weather patterns and climatic systems. Its spatial variations, driven by multiple factors, result in pressure belts, gradients, and wind systems that regulate atmospheric circulation on both local and global scales.

## **Factors Affecting Atmospheric Pressure**

#### 1. Temperature

- Warmer air expands, becomes lighter, and results in low pressure.
- Cooler, denser air leads to high pressure.
- This contrast creates pressure zones like the equatorial low and polar highs.

#### 2. Altitude

- Pressure decreases with elevation due to thinning air columns.
- High-altitude regions like the Himalayas experience much lower pressure.

### 3. Water Vapour (Humidity)

- Moist air is lighter than dry air due to the lower molecular weight of water vapor.
- High humidity regions, especially over oceans, tend to have lower pressure.

#### 4. Earth's Rotation and Coriolis Force

- Influences wind direction and the formation of cyclonic systems.
- Leads to the development of pressure cells like cyclones and anticyclones.

#### 5. Gravitational Force

- Compresses air near the surface, resulting in higher pressure at lower altitudes.
- Helps maintain the hydrostatic balance of the atmosphere.

#### 6. Land and Water Bodies

- Differential heating causes seasonal pressure changes:
  - **Land:** heats faster  $\rightarrow$  low pressure in summer
  - lacktriangle Ocean: retains heat  $\rightarrow$  moderate pressure changes
- Drives monsoonal wind systems.

#### 7. Ocean Currents

- $\circ$  Warm currents heat air  $\rightarrow$  low pressure
- $\circ$  Cold currents cool air  $\rightarrow$  high pressure
- Influence regional pressure gradients and climate zones.

#### 8. Atmospheric Circulation Patterns

- O Global convection cells (Hadley, Ferrel, Polar) establish semi-permanent pressure belts, such as:
  - Subtropical highs
  - Equatorial lows
  - Polar highs

### **Impact on Weather Conditions**

#### A. Local Weather

- Cyclones (low pressure): cloudy, windy, rainy weather
- Anticyclones (high pressure): stable, clear skies
- Local winds: Land-sea breezes and mountain-valley winds due to diurnal pressure differences

### **B.** Global Patterns

- o Trade winds, westerlies: Driven by global pressure belts and rotation
- o Monsoons: Seasonal pressure shifts over land and sea
- Jet Streams: Fast upper-air winds along pressure gradients
- ENSO & IOD: Pressure anomalies affecting global climate variability

Atmospheric pressure, though invisible, profoundly shapes Earth's weather and **climate systems**. Understanding its causes and effects is critical for meteorology, climate **forecasting**, and disaster preparedness—especially amid growing climate variability.

## **Section - B**

# Q.11 How did the interaction with Central Asian and European cultures shape the trajectory of Indian art and architecture? Evaluate with reference to the Indo-Islamic and Colonial periods

**Ans:** India's art and architecture have evolved through centuries of cross-cultural **interaction**, particularly with Central Asian and European civilizations. These engagements not only enriched the aesthetic vocabulary of Indian traditions but also gave rise to distinct architectural and artistic syntheses.

Two transformative phases—Indo-Islamic (medieval period) and Colonial (modern period)—stand out in terms of foreign influence and internal adaptation.

## Impact of Central Asian Interaction: The Indo-Islamic Phase

The arrival of Turks, Afghans, and Mughals from Central Asia brought Islamic artistic sensibilities which fused with indigenous traditions to produce Indo-Islamic architecture.

## 1. Architectural Innovations

- Arches, domes, and minarets replaced trabeate Hindu styles.
- Introduction of squinches and pendentives to support domes, visible in Alai Darwaza (Delhi, 1311).
- The Qutb Minar complex is a classic blend of Islamic calligraphy with **Hindu** motifs.

### 2. Material and Design Changes

- Use of red sandstone and white marble, along with geometric patterns, arabesques, and calligraphy, became dominant.
- Charbagh garden layouts, derived from Persian influence, became a symbol of paradise on earth (e.g., Humayun's Tomb, 1570).

### 3. Mughal Synthesis

- The Mughals, especially Akbar, promoted a syncretic style:
  - Fatehpur Sikri combines Gujarati, Rajasthani, and Islamic elements.
  - Taj Mahal (1653), a UNESCO World Heritage Site, represents the pinnacle of Indo-Islamic synthesis—an architectural poem in white marble.

#### 4. Painting and Decorative Arts

- Mughal miniatures, influenced by Persian styles, depicted court scenes, flora-fauna, and epics.
- Integration of Turko-Mongol visual idioms with Indian themes produced a rich school of art.

### Impact of European Interaction: The Colonial Phase

With the arrival of European colonial powers, especially the British, Indian art and architecture experienced a new wave of transformation, aligned with Western aesthetic ideals and political symbolism.

### 1. Architectural Hybridisation

- The British developed Indo-Saracenic architecture blending Gothic, Victorian, and Islamic styles.
  - Victoria Memorial (Kolkata) and Madras High Court reflect this hybrid approach.
- Neo-classical and Gothic revival styles were introduced in civil and institutional buildings.

### 2. Urban Planning and Civic Architecture

- Modern cities like Bombay (Mumbai) and New Delhi were designed with European planning principles.
- Lutyens' Delhi, with its wide avenues and orderly layout, marked a shift from organic Indian city planning.

#### 3. Impact on Art and Education

- Establishment of art schools in Bombay, Madras, and Calcutta led to the rise of the Company School of painting—a fusion of European realism and Indian subjects.
- Later, nationalist artists like Raja Ravi Varma and the Bengal School attempted to revive Indian aesthetics in response to Western domination.

The interaction with Central Asian and European cultures profoundly reshaped India's artistic and architectural landscape. These influences, however, did not supplant indigenous traditions but led to creative assimilation and innovation. The Indo-Islamic phase showcased a deep cultural fusion, while the Colonial period sparked both adaptation and resistance—reflected in India's modern artistic identity. Together, they chart the evolution of a uniquely pluralistic Indian visual heritage.

Q.12 It was the oppressive policies of colonial powers that led to the rise of a collective global consciousness against colonialism. Explain with reference to India, Africa, and Asia.

Ans: Colonialism, marked by economic exploitation, political domination, and cultural suppression, triggered widespread resistance across colonized regions. The oppressive policies of European imperial powers in India, Africa, and Asia not only ignited local nationalist movements but also contributed to the emergence of a collective global consciousness against colonialism in the 20th century.

This shared experience of subjugation laid the foundation for anti-colonial solidarity and decolonization movements worldwide.

## **India: The Forge of Anti-Colonial Resistance**

Colonial oppression in India took the form of economic drain, racist policies, and political repression:

- The Permanent Settlement and revenue policies impoverished peasants and zamindars alike.
- Events like the Bengal Famine of 1943, worsened by British indifference, exposed the exploitative nature of British rule.
- Racial discrimination and exclusion from higher administration fostered elite discontent, while repressive laws like the Rowlatt Act (1919) provoked mass agitation.

#### These policies led to:

- Mass movements like Non-Cooperation, Civil Disobedience, and Quit India, under Gandhi's leadership.
- The formation of international linkages, e.g., Nehru's participation in the 1927 Brussels Conference against colonialism.
- India became a symbol of anti-colonial struggle, influencing movements in Africa and Southeast Asia.

### **Africa: From Exploitation to Liberation**

## European colonial powers, particularly Britain, France, and Belgium, pursued brutal policies in Africa:

- Forced labor, land dispossession, and extraction of resources characterized colonial economies.
- In the Congo Free State, over 10 million people died due to King Leopold II's exploitative rubber regime.
- In Kenya and South Africa, segregation is tpolicies (e.g., apartheid) **institutionalized** racism.

#### **Repercussions included:**

• Pan-Africanism, led by thinkers like W.E.B. Du Bois and Kwame Nkrumah, **emphasized** African unity and liberation.

- The formation of organizations like the Organization of African Unity (OAU, 1963) reflected rising continental solidarity.
- Independence movements, such as in Ghana (1957) and Algeria (1962), drew inspiration from global anti-colonial sentiment.

### **Asia: Rising Against Imperialism**

### Asian nations experienced similar forms of colonial domination:

- Dutch rule in Indonesia, French imperialism in Vietnam, and British control in Burma and Malaya were marked by resource extraction, cultural suppression, and political disenfranchisement.
- The Japanese occupation during WWII exposed vulnerabilities of European **powers** and galvanized national movements.

### **Anti-colonial responses included:**

- Ho Chi Minh's nationalist and communist movement in Vietnam.
- Sukarno's leadership in Indonesia's freedom struggle.
- Asian Relations Conference (1947) in New Delhi, hosted by India, highlighted pan-Asian solidarity.

The collective trauma and resistance to colonial exploitation forged a sense of unity among colonized nations. The shared struggle against injustice, supported by **emerging** global platforms like the Non-Aligned Movement and United Nations, transformed **localized nationalisms** into a global anti-colonial consciousness. Ultimately, it was the very **oppression** of colonial powers that sowed the seeds of their political undoing and the liberation of the Global South.

# Q.13 Urbanization is a marker of development, but unplanned urbanization breeds social and environmental crises. Discuss India's urban challenges and their possible remedies.

Ans: Urbanization, when effectively planned, is a driver of economic growth, innovation, and modernization. However, in India, rapid and largely unplanned urban expansion has led to a host of social, economic, and environmental challenges. With over 35% of India's population living in urban areas (Census 2011)—expected to reach 40% by 2036—addressing these challenges is crucial for sustainable development.

## **Urbanization as a Development Marker**

- Cities contribute to over 60% of India's GDP, acting as hubs for finance, **education**, services, and industry.
- Urban areas create employment opportunities, foster social mobility, and **stimulate** technological advancement.

## Challenges of Unplanned Urbanization in India

### A. Social Challenges

## 1. Housing Shortages and Slums

- Over 65 million people live in slums (NSSO), facing poor sanitation, overcrowding, and lack of basic services.
- Affordable housing remains inaccessible for low-income groups.

### 2. Urban Poverty and Informality

- A large informal workforce lacks social security and stable incomes.
- Urban poverty fuels social unrest, crime, and inequality.

#### 3. Strain on Basic Services

- Water, sanitation, electricity, and healthcare infrastructure remain inadequate.
- Public transport is often overcrowded and underdeveloped.

#### B. Environmental Challenges

#### 1. Air and Water Pollution

- Cities like Delhi and Kanpur frequently top global pollution indices.
- O Untreated sewage and industrial waste pollute rivers and groundwater.

### 2. Waste Management

India generates over 150,000 tonnes of solid waste daily, but effective segregation and processing remain poor.

#### 3. Urban Heat Island Effect

 Unchecked concretization reduces green cover, increasing urban temperatures.

### 4. Climate Vulnerability

Ocastal cities (e.g., Mumbai, Chennai) face heightened risks from floods and sea-level rise due to poor urban planning.

## Remedies and Way Forward

#### **Planned Urban Development**

- Adopt integrated urban planning focusing on zoning, mixed land use, and inclusive growth.
- Strengthen urban local bodies (ULBs) through financial devolution and capacity building.

### **Affordable and Inclusive Housing**

- Scale up Pradhan Mantri Awas Yojana (PMAY) with better beneficiary targeting and public-private partnerships.
- Encourage rental housing models for migrant workers.
- Sustainable Mobility and Infrastructure
- Expand metro networks, BRTS, and promote non-motorized transport.
- Focus on Transit-Oriented Development (TOD) and smart parking solutions.

#### Waste and Pollution Management

- Implement Swachh Bharat 2.0 rigorously with emphasis on waste segregation, recycling, and waste-to-energy solutions.
- Enforce pollution control norms through stricter regulatory mechanisms.

#### **Green and Resilient Cities**

- Develop urban forests, water bodies, and green roofs to combat heat and pollution.
- Promote climate-resilient infrastructure and risk-sensitive urban planning.

India's urbanization holds immense potential, but if left unplanned, it risks deepening **inequalities** and environmental degradation. The solution lies in people-centric, **climate**-sensitive, and technologically enabled urban governance. With visionary policies and **empowered** institutions, Indian cities can transform into engines of equitable and **sustainable** development.

# Q.14 Variations in surface pressure over the Indian subcontinent and Indian Ocean determine the strength of the southwest monsoon. Discuss with reference to El Niño, Indian Ocean Dipole, and pressure anomalies.

Ans: The southwest monsoon, a defining feature of India's climate system, is **primarily** driven by differential heating between land and ocean surfaces. This leads to **seasonal** reversal of winds and large-scale moisture transport from the oceans to the Indian subcontinent. A crucial driver behind this is the variation in **surface** pressure between the Indian landmass and adjacent oceanic regions, which **determines** the onset, strength, and variability of monsoonal rainfall.

#### **Surface Pressure Gradient: The Fundamental Driver**

The monsoon functions as a gigantic sea breeze system, dependent on the pressure contrast between:

- Low pressure over northwest India and the Tibetan Plateau, created by intense summer heating.
- High pressure over the southern Indian Ocean, particularly near the Mascarene High.
- This pressure gradient facilitates the cross-equatorial flow of moist air from the Indian Ocean, forming the southwest monsoon current. The stronger the gradient, the more vigorous the monsoon winds and higher the rainfall potential.

### Global and Regional Pressure Anomalies Influencing the Monsoon

### 1. El Niño Southern Oscillation (ENSO)

- El Niño years are marked by warmer SSTs in the eastern Pacific and weakened
   Walker Circulation.
- This raises surface pressure over India and weakens the pressure gradient, resulting in subsidence of air and monsoon failure.
- Nearly 60% of El Niño events have coincided with below-normal monsoons (e.g., 2002, 2015).

#### 2. La Niña

- Characterized by cooler eastern Pacific SSTs, strengthening the Walker Circulation.
- Results in enhanced convection over the Indian Ocean and lower pressure over India, promoting stronger monsoon winds and above-normal rainfall (e.g., 2020, 2021).

### 3. Indian Ocean Dipole (IOD)

- A positive IOD features warmer western Indian Ocean SSTs, enhancing convection and lowering regional pressure.
- This increases the cross-equatorial moisture flow, often strengthening the monsoon.
- A positive IOD can offset El Niño's adverse effects (e.g., in 1997 and 2019).

### 4. Mascarene High and Tibetan High

- The Mascarene High, a subtropical high-pressure cell, regulates the intensity of cross-equatorial winds.
  - A stronger high means stronger monsoon flow.
  - A weaker high results in deficient rainfall.
- The Tibetan High, an upper tropospheric high, reinforces the thermal low over northwest India and supports vertical convection, aiding monsoon development.

## **Complex Interplay of Multiple Systems**

The interaction between ENSO, IOD, Mascarene High, and other pressure systems is non-linear and dynamic:

- El Niño + Negative IOD  $\rightarrow$  severely weak monsoon (e.g., 2015).
- El Niño + Positive IOD  $\rightarrow$  neutral or moderate impact (e.g., 2019).
- Neutral ENSO + Positive IOD → strong monsoon.
- Madden-Julian Oscillation (MJO) and Equatorial Rossby waves further influence intra-seasonal monsoon variability.

The southwest monsoon is highly sensitive to pressure variations, both regionally and globally. The surface pressure gradient between land and ocean sets the stage, while anomalies like ENSO, IOD, and the Mascarene High act as modulating forces. Understanding and integrating these dynamic factors into forecasting models is essential for agriculture planning, disaster preparedness, and climate resilience in India.

Q.15 Describe the structure and characteristics of Earth's interior and explain possible changes in it based on recent research.

Ans: Understanding the Earth's internal structure is crucial for explaining **geodynamic** processes such as volcanism, earthquakes, plate tectonics, and geomagnetism. Since direct access is limited to the shallow crust, much of our knowledge is **derived** from indirect sources—primarily seismic wave behaviour, gravity anomalies, geomagnetic studies, and laboratory simulations.

#### **Structure of Earth's Interior**

The Earth's interior is concentric and divided into three major layers based on composition and physical properties:

- 1. Crust (Lithosphere)
  - Thickness: 30–70 km (continental), 5–10 km (oceanic)
  - O Composition: Granitic (Sial) in continents; Basaltic (Sima) in oceans
  - o Characteristics:
    - Outermost brittle layer
    - Home to all known life
    - Fragmented by tectonic forces

#### 2. Mantle

- Extent: From Moho ( $\sim$ 35 km) to  $\sim$ 2,900 km
- o Composition: Peridotite (rich in Fe and Mg)
- Divisions:
  - Upper Mantle: Includes ductile asthenosphere, source of magma
  - Lower Mantle: Solid yet slowly flowing under high pressure
- Features:
  - Convection currents drive plate tectonics
  - Temperature and pressure rise with depth

#### 3. Core

- Outer Core (2,900–5,150 km): Liquid iron-nickel alloy; responsible for Earth's geomagnetic field through the geodynamo mechanism
- Inner Core (5,150–6,371 km): Solid due to immense pressure; composed of dense iron-nickel

#### Seismic Evidence for Layering

- P-waves (compressional) and S-waves (shear) reveal different material properties:
  - S-wave shadow zones confirm the liquid nature of the outer core
  - P-wave refraction indicates boundaries and density differences
- Key discontinuities:
  - **Moho:** Crust–mantle boundary

- **Gutenberg:** Mantle–core boundary
- **Lehmann:** Outer—inner core boundary

### **Recent Discoveries and Evolving Understanding**

- 1. Slowing Inner Core Rotation
  - 2023–24 seismic studies indicate that the inner core's spin is slowing or oscillating.
  - May affect Earth's rotation (length of day) and magnetic field stability.

#### 2. Innermost Inner Core

 High-resolution seismic data suggests a distinct inner zone within the inner core, hinting at stages in core solidification and planetary evolution.

### 3. Core-Mantle Boundary (CMB) Anomalies

 ULVZs (Ultra-Low Velocity Zones) suggest molten patches or ancient slabs at the CMB, influencing mantle plumes and volcanic hotspots (e.g., Hawaii, Réunion).

## 4. Geomagnetic Field Changes

• Rapid weakening and shifts (e.g., South Atlantic Anomaly) point to outer core convective instability, possibly a precursor to pole reversal.

### 5. Mantle Superplumes

- Seismic tomography identifies LLSVPs under Africa and the Pacific.
- Their long-term structural stability may be linked to supercontinent cycles and mass extinction events.

While the classical model of the Earth's interior provides a layered framework, modern geoscience reveals a far more dynamic system. Evolving insights from seismology, computational modeling, and high-pressure experiments are redefining our understanding of Earth's deep processes. These findings not only inform geology but also enrich our comprehension of planetary formation, tectonic resilience, and long-term climatic evolution.

## Q.16 Explain the key evidence that supported Alfred Wegener's Continental Drift Theory. How did later discoveries support or contradict his ideas?

Ans: In 1912, German meteorologist Alfred Wegener proposed the Continental Drift Theory, asserting that continents were once joined in a single supercontinent, Pangaea, which began fragmenting during the Mesozoic Era. Although lacking a convincing mechanism, Wegener's theory laid the groundwork for the development of the Plate Tectonic Theory, which transformed the understanding of Earth's dynamic geology.

### **Key Evidences Presented by Wegener**

### 1. Geological Fit of the Continents

- The coastlines of South America and Africa fit like pieces of a jigsaw puzzle.
- Continuity of mountain ranges, such as the Appalachians (North America) and the Caledonian Mountains (Europe), suggests a shared geological past.

#### 2. Fossil Correlation

- Identical fossils of species incapable of crossing oceans were found on separate continents:
  - Mesosaurus (freshwater reptile) in Brazil and South Africa
  - Glossopteris (fern) in India, Australia, Antarctica, and South America

#### 3. Paleoclimatic Indicators

- Evidence of ancient glaciation in now-tropical regions (e.g., central India, southern Africa).
- Coal deposits in Antarctica imply it once had a warm, humid climate.

### 4. Similarity in Rock Types and Ages

- Precambrian rock sequences and structures in Brazil and West Africa are remarkably similar.
- o Indicates that these landmasses were once contiguous.

### 5. Initial Paleomagnetic Observations

Continental drift was inferred from mismatched magnetic orientations of rocks on different continents, suggesting they had shifted positions over time.

#### **Limitations of the Theory**

- Wegener could not explain how continents moved.
- His idea of continents "ploughing through" oceanic crust was deemed **geophysically** impossible with the scientific understanding of his time.

### **Modern Evidence Supporting Wegener's Theory**

1. Seafloor Spreading - Harry Hess (1960s)

Discovery of mid-ocean ridges and symmetrical magnetic stripes on the seafloor confirmed new crust formation and lateral spreading.

#### 2. Paleomagnetism

• Reconstructed positions of continents based on magnetic data showed **converging** polar wander paths, supporting the existence of Pangaea.

#### 3. Distribution of Earthquakes and Volcanoes

 Concentrated seismic and volcanic activity along plate boundaries (e.g., Ring of Fire, Himalayas) validated the concept of mobile lithospheric plates.

### 4. Satellite Geodesy

OGPS and satellite measurements now record plate movements in real time (2–5 cm/year), providing direct evidence of continental drift.

### 5. Plate Tectonic Theory

- Developed in the 1960s, it integrated continental drift, seafloor spreading, and subduction.
- Offers a comprehensive explanation for phenomena such as earthquakes, mountain building, oceanic trenches, and more.

Though Wegener's theory was initially dismissed, it was later vindicated through advances in geophysical science. The Plate Tectonic Theory provided the missing mechanism, transforming Wegener's hypothesis into a cornerstone of modern geology. Today, he is celebrated as a visionary who pioneered the understanding of Earth's dynamic lithosphere, emphasizing that even speculative ideas, when grounded in evidence, can lead to scientific revolutions.

Q.17 Regional chauvinism manifests in the form of cultural gatekeeping and exclusion of migrant populations. Discuss the sociological implications of such exclusion on social mobility, inter-community relations, and urban harmony.

Ans: Regional chauvinism refers to the excessive pride or advocacy for one's own region, often at the cost of alienating those from other parts of the country. It manifests through cultural gatekeeping, linguistic assertion, and socio-political exclusion of migrant populations. While it may stem from genuine anxieties about identity, employment, or cultural dilution, its outcomes can have far-reaching sociological implications.

## **Cultural Gatekeeping and Exclusion**

- Cultural gatekeeping involves drawing rigid boundaries around regional identity
   language, traditions, food, dress and rejecting what is considered "non-native".
- Migrants are often labelled as outsiders and denied cultural legitimacy.
- In cities like Mumbai (Marathi vs. North Indians) or Bengaluru (Kannada vs. Hindi speakers), such gatekeeping leads to social segregation and alienation of migrants.

#### **Implications on Social Mobility**

#### 1. Economic Marginalisation

- Migrants may face job discrimination, particularly in government or publicfacing roles that favour locals through informal or political pressures.
- Access to social services (housing, health, education) may be restricted or culturally inaccessible, hindering upward mobility.

#### 2. Educational Exclusion

- Regional linguistic dominance in public education may disadvantage children from migrant backgrounds, affecting long-term mobility.
- Examinations and recruitment favouring local languages create structural barriers for outsiders.

#### **Strain on Inter-Community Relations**

### 1. Xenophobia and Stereotyping

- Migrants may be seen as threats to local jobs, culture, or political power.
- This breeds prejudice, stereotyping, and social mistrust, undermining **national** integration.

#### 2. Social Fragmentation

- Instead of inclusive civic identities, urban populations split along linguistic, ethnic, or regional lines.
- Leads to ghettoisation, limited social interactions, and breakdown of community solidarity.

### **Erosion of Urban Harmony**

#### 1. Urban Conflicts and Violence

- O Periodic violence against migrants (e.g., Bihari workers in Maharashtra or Northeast Indians in Delhi) reflects how chauvinism disrupts peace.
- Such violence also erodes the cosmopolitan character of Indian cities.

### 2. Policy and Governance Challenges

- Regional political parties may instrumentalize chauvinism for electoral gains, resisting inclusive urban policies.
- Migrants may avoid participation in local governance due to fear or disenfranchisement, affecting democratic representation.

### Theoretical and Sociological Perspective

- Robert Merton's Strain Theory: Migrants facing blocked opportunities may resort to withdrawal or deviance, leading to further exclusion.
- Pierre Bourdieu's concept of cultural capital: Migrants lack the local cultural capital to integrate, which reproduces inequality.
- **Durkheimian perspective:** Regional chauvinism weakens mechanical **solidarity** in diverse societies, hampering social cohesion.

While regional pride is natural in a diverse country like India, chauvinism that leads to **migrant** exclusion undermines the foundational values of pluralism, equality, and **fraternity**. To preserve urban harmony and inclusive growth, it is essential to foster intercultural understanding, promote inclusive policies, and encourage shared civic identities that **transcend** parochial boundaries.

Q.18 Political ideologies such as socialism, capitalism, and communism were not just theories but forces that shaped the course of world history. Critically examine their impact.

Ans: Political ideologies like socialism, capitalism, and communism have shaped the trajectory of global politics, economies, and societies. Far from being abstract theories, these ideologies influenced revolutions, wars, governance systems, and global alliances, redefining how nations developed and how power was distributed within and among them.

## **Capitalism: Market Freedom and Global Expansion**

Core Features: Private ownership, free markets, profit motive, limited state intervention.

### **Impact:**

- Industrial Revolution (18th–19th centuries): Capitalism fuelled massive industrial growth in Europe and North America, leading to technological advancement and urbanization.
- Colonialism and Imperialism: The capitalist hunger for raw materials and markets led to European imperialism across Asia, Africa, and Latin America.
- Global Inequality: Capitalism generated wealth, but also widened the gap between the global North and South, as well as within societies (e.g., Gilded Age in the U.S.).

#### **Criticism:**

- It often prioritizes profit over equity and sustainability.
- In developing nations, unregulated capitalism has led to exploitation of labour, environmental degradation, and corporate monopolies.

## Communism: Revolution for Classless Society

**Core Features:** Collective ownership, class struggle, abolition of private **property**, planned economy.

#### **Impact:**

- Russian Revolution (1917): Marked the beginning of a major communist state under Lenin and later Stalin, reshaping Eastern Europe after WWII.
- Cold War Rivalry: Communist ideology in USSR and China stood in direct opposition to Western capitalism, resulting in proxy wars (Korea, Vietnam, Afghanistan).
- Social Reforms: In some cases, communism achieved rapid literacy, healthcare, and industrialization (e.g., Maoist China's Great Leap Forward, albeit with disastrous results).

#### **Criticism:**

- **Authoritarianism:** In practice, many communist regimes became highly **repressive** (e.g., Stalin's purges, Mao's Cultural Revolution).
- Economic inefficiency: Central planning often led to shortages, lack of innovation, and stagnation.

## Socialism: Balance Between Equity and Market

Core Features: Public ownership of key sectors, welfare state, progressive **taxation**, and redistribution.

### **Impact:**

- Post-War Europe (Mixed Economies): Countries like the UK and Sweden adopted socialist principles within democratic frameworks, leading to robust welfare systems (NHS, free education).
- India's Nehruvian Socialism: After independence, India adopted a planned economy with strong state control in core sectors—helping build public infrastructure but limiting private growth.

#### **Criticism:**

- Excessive state control may suppress private initiative and lead to inefficiency.
- Socialist policies, when poorly implemented, result in bureaucracy and corruption.

### **Comparative and Contemporary Perspective**

- The 20th century witnessed ideological bipolarity: capitalist West vs. communist East.
- Globalization in the 21st century saw the hybridization of models—e.g., China's "market socialism" or Nordic "social democracies".
- Neoliberal capitalism has led to economic growth but also financial crises (2008) and rising inequality, sparking renewed interest in democratic socialism (e.g., Bernie Sanders, European Left).

Political ideologies like capitalism, communism, and socialism have not only shaped **nations** but defined the power structures, conflicts, and welfare outcomes of modern **history**. While each ideology has strengths and flaws, their impact lies in how they were implemented—often diverging from their theoretical ideals. In today's interconnected world, ideological pragmatism and synthesis may offer more viable pathways than rigid adherence to any single doctrine.

Q.19 A nationwide caste census may reshape the discourse on caste and deepen identity-based mobilization. Critically analyse the social implications of such a census on unity, diversity, and inter-group relations in India.

Ans: A nationwide caste census, last comprehensively conducted in 1931 (except for Scheduled Castes and Scheduled Tribes in post-independence India), has re-entered political and public discourse. Proponents argue that updated data is essential for equitable policy formulation, while critics fear it may intensify identity-based polarization. Its social implications on unity, diversity, and intergroup relations are both promising and precarious.

### **Arguments in Favour of a Caste Census**

#### 1. Evidence-Based Social Justice

- Accurate caste data can enable targeted policies for historically disadvantaged groups.
- o It can inform reservation restructuring, especially amid demands for inclusion by communities like Marathas, Patidars, and Jats.

### 2. Revealing Intra-Group Inequalities

- O Disaggregated data within OBCs or Dalit sub-castes may expose internal hierarchies.
- Helps design sub-categorization of reservations, ensuring equitable access within broader categories.

### 3. Strengthening Democratic Accountability

- Promotes political representation and recognition of marginalized voices.
- Enables socio-economic mapping aligned with constitutional goals of equality.

### **Potential Social Risks and Concerns**

## 1. Intensification of Identity Politics

- May lead to competitive victimhood and rank-based mobilization, deepening social fault lines.
- Risk of reducing citizenship to caste identities, undermining constitutional secularism and fraternity.

#### 2. Undermining Social Cohesion

- Caste enumeration could reinforce social silos, countering efforts of castebased integration.
- May strain inter-group relations, particularly in mixed-population regions and urban centres.

#### 3. Possibility of Data Misuse

- Political manipulation of data for vote-bank politics could erode trust in governance.
- There may be challenges in verification, self-identification, and inflation of caste numbers for perceived benefits.

### **Impact on Unity and Diversity**

### 1. Diversity as Strength or Division?

 While caste data may highlight India's rich social diversity, it may also entrench caste consciousness in everyday interactions.

### 2. Unity Through Equity

o If handled judiciously, a caste census can promote equitable development, enhancing long-term national unity through inclusive growth.

#### 3. Urban vs. Rural Divide

Urban India, where caste identities are relatively fluid, may see renewed caste assertion, reversing some gains of anonymity and meritocracy.

#### **Sociological Perspective**

- M.N. Srinivas' concept of 'Sanskritization' shows caste identities are dynamic; a census may freeze them into rigid categories.
- B.R. Ambedkar believed that caste is not merely a division of labor but a **division** of laborers understanding its reality may be essential for annihilation.

A nationwide caste census has the potential to become a tool of empowerment or a **trigger** for fragmentation, depending on its intent, process, and usage. India must strike a careful balance — recognizing social realities without entrenching caste divisions. An inclusive approach, sensitive dissemination, and post-census reforms will be crucial to ensuring that data drives unity through justice, not division through identity.

# Q.20 The rising brutality in crimes committed by juveniles has led to calls for harsher punishment rather than rehabilitation. Critically examine whether juvenile justice should prioritize reform over retribution.

Ans: In recent years, India has witnessed a disturbing rise in heinous crimes involving juveniles, including assault, rape, and murder. Public outrage, amplified by media coverage, often demands harsher punishment for young offenders. However, this raises a fundamental question about the purpose of juvenile justice—should it prioritize reformation or retribution?

## **Understanding Juvenile Justice Philosophy**

The Juvenile Justice (Care and Protection of Children) Act, 2015 in India is grounded in the United Nations Convention on the Rights of the Child (UNCRC), to which India is a signatory. The core principle is that children under 18 years, owing to their physical and psychological immaturity, deserve rehabilitation, not retribution. However, the 2015 amendment allows juveniles aged 16–18 to be tried as adults in cases of heinous crimes, sparking debate over the shift towards punitive justice.

### **Arguments for Prioritizing Reform**

## 1. Psychological Maturity and Neuroscience

- Studies in developmental psychology show that adolescents lack full impulse control and have greater capacity for change.
- The frontal cortex—responsible for decision-making—is still developing during adolescence.

### 2. Higher Scope for Rehabilitation

- Juveniles, when provided with education, counselling, and vocational **training**, can reintegrate into society as responsible citizens.
- Examples: Reformation models in Scandinavian countries show low recidivism rates among reformed juveniles.

### 3. Social and Economic Background

- Many juveniles involved in crimes come from marginalized, abusive, or poverty-ridden environments.
- Structural issues such as lack of education, family support, and exposure to violence need to be addressed rather than punished.

#### **Arguments for Stronger Deterrents**

#### 1. Grave Nature of Crimes

- Increasing instances of premeditated violence by juveniles challenge the assumption of innocence.
- Victims and society demand justice and deterrence.

#### 2. Misuse of Leniency

 Some juveniles may exploit their minor status, knowing the legal consequences are less severe.

#### 3. Public Sentiment and Rule of Law

• In high-profile cases (e.g., 2012 Nirbhaya case), lenient treatment of juvenile offenders led to national outrage.

### Finding a Balanced Approach

## Rather than taking an either-or position, juvenile justice should aim for a graduated, context-specific approach:

- Psychological assessment before trying a juvenile as an adult, as allowed under the 2015 Act.
- Strengthen rehabilitative infrastructure in Observation Homes and Special Homes.
- Emphasize restorative justice facilitating offender accountability and victim healing.
- Focus on preventive strategies through education, family support, and community engagement.

Juvenile justice must be guided by the principle that children are not born criminals, but are shaped by their circumstances. While heinous crimes require appropriate legal response, retribution alone fails to address root causes and risks creating hardened criminals. A justice system that balances accountability with compassion, and punishment with potential for reform, is the true hallmark of a mature and humane society.