

CURRENT AFFAIRS

WEEKLY



MAINS ARTICLE

GS-II

- ❑ ANTI-DEFECTION LAW
- ❑ DE-LISTING OF REGISTERED UNRECOGNISED POLITICAL PARTIES (RUPPS)
- ❑ ADOLESCENT HEALTH IN THE TIME OF CLIMATE CHANGE:
- ❑ EMPLOYMENT LINKED INCENTIVE (ELI) SCHEME
- ❑ INDIA & SCO
- ❑ INDIA & BANGLADESH
- ❑ QUAD (QUADRILATERAL SECURITY DIALOGUE)
- ❑ INDIA & GLOBAL SOUTH
- ❑ INDIA & THE NEW WORLD ORDER

GS-III

- ❑ GIG WORKERS' INVISIBILITY
- ❑ INDUSTRIAL SAFETY FAILURE IN TELANGANA

PRELIMS ARTICLE

ART & CULTURE

- ❑ Telangana's Bonalu festival

HISTORY

- ❑ Santhal Uprising and Hul Diwas)

POLITY & GOVERNANCE:

- ❑ Instant Birth Certification
- ❑ Mother Tongue Flexibility

INTERNATIONAL RELATIONS

- ❑ Kishenganga and Ratle hydroelectric projects

ECONOMY

- ❑ Increase in Agriculture and Allied sector GVA
- ❑ Consumer-Driven Economy

ENVIRONMENT & ECOLOGY

- ❑ Asiatic wild dog
- ❑ Tikri Khurd Lake

and Delhi's Water Bodies

- ❑ Agroforestry Reforms
- ❑ Cloud Seeding
- ❑ Munnar as a Responsible Destination
- ❑ Community Forest Resource (CFR) Management

INTERNAL SECURITY

- ❑ Assam, Mizoram draft rules to curb illegal immigration

SCIENCE & TECHNOLOGY

- ❑ GLP-1 drugs
- ❑ EPABX Systems
- ❑ Oldest Ancient Egyptian Genome Decoded
- ❑ Axiom-4 Mission
- ❑ Quantum Valley Initiative

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DISCLAIMER

The current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

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AISHWARYAM PRAJAPATI (AIR-10, CSE 2023)



I am truly grateful to GS SCORE for their guidance. They offered genuine mentorship.

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SECTION -A

MAINS ISSUES

ANTI-DEFECTION LAW

Context

The Himachal Pradesh Chief Minister highlighted the role of the Anti-Defection Law in safeguarding democracy following the 2024 Rajya Sabha elections, where six Congress MLAs cross-voted for a BJP candidate, leading to their disqualification and the prevention of a potential no-confidence motion against the elected government.

Anti-Defection Law – Overview

- Introduced via **52nd Constitutional Amendment Act, 1985**.
- Incorporated as the **Tenth Schedule** of the Constitution.
- Objective: Prevent **political defections** to ensure **stability of elected governments**.
- Applies to **both Parliament and State Legislatures**.

Key Provisions

- Aimed to **disqualify legislators** for:
 - ▶ Defecting to another political party.
 - ▶ Voting/abstaining against party direction (whip).
- Speaker/Chairman decides on disqualification.
- **Subject to Judicial Review** (*Kihoto Hollohan v. Zachillhu*, 1992).

Grounds for Disqualification

- **Voluntarily giving up party membership**.
- **Voting or abstaining against party whip** without prior permission.
 - ▶ Disqualification not applicable if party condones within 15 days.

- **Independent member joins a political party** post-election.
- **Nominated member joins any political party** after 6 months.

Exceptions to Disqualification

- **Merger Exception:**
 - ▶ If **2/3rd members** of a party agree to merge with another party.
 - ▶ No disqualification for such members.
- **Split provision (1/3rd rule)** removed via **91st Constitutional Amendment Act, 2003**.

Major Issues

- **Undermines legislative autonomy**; MPs/MLAs must obey party line.
- **No time limit** for Speaker to decide on defection cases.
- **Speaker's role may be politically biased**.
- **No recognition for 'split'**, only merger is valid.
- **Promotes horse-trading**, weakening democratic ethics.
- **Breaks accountability chain**: legislators accountable to party, not public.
- **Encourages wholesale defection**, penalizes retail defection.

Suggestions for Reform

- **Time-bound adjudication** of disqualification by an **independent tribunal** (SC recommendation).
- **Election Commission** to decide defection cases (EC recommendation).

- Restrict law to **confidence/money bills only** (Hamid Ansari).
- Enact law to promote **intra-party democracy**, bring parties under **RTI**.

Important Case Law

- **Kihoto Hollohan v. Zachillhu (1992):**
 - Validated Anti-Defection Law.
 - Allowed **judicial review** after Speaker's decision.
- **Recent Example (2024 – Himachal Pradesh)**
 - 6 Congress MLAs cross-voted in **Rajya Sabha election**.
 - **Disqualified under Tenth Schedule**.
 - State Assembly passed **Bill to stop pension** of disqualified MLAs.

DE-LISTING OF REGISTERED UNRECOGNISED POLITICAL PARTIES (RUPPS)

Context

The Election Commission of India (ECI) has initiated the process of de-listing 345 Registered Unrecognised Political Parties (RUPPs) that have not contested any election in the past six years and are found to be physically untraceable. This development revives debates on internal democracy, tax misuse, and long-pending electoral reforms.

Constitutional and Legal Basis for Political Party Registration

- **Constitutional Provision:**
 - **Article 19(1)(c):** Grants all citizens the right to form associations, including political parties.
- **Legal Provision:**
 - **Section 29A, Representation of the People Act, 1951:**
 - ◆ Requires political parties to register with the ECI within 30 days of formation.
 - ◆ Mandatory declaration to uphold **sovereignty, socialism, secularism, democracy, and the Constitution**.
 - ◆ Must include provisions for **internal democracy**, such as periodic elections of office bearers.

Privileges and Obligations of RUPPs

■ Benefits:

- **Income Tax exemption** under Section 13A of the IT Act, 1961.
- **Common symbol** for elections.
- Nomination of **20 star campaigners** during election campaigns.

■ Financial Accountability:

- Must maintain donor details for contributions above ₹20,000.
- Donations above ₹2,000 must be made through cheque or bank transfer.

■ Annual Filing Requirements:

- Submission of audited accounts and contribution reports to ECI.
- Failure to comply leads to **loss of tax exemption**.

The Issue of 'Letter Pad Parties'

- Over **2,800 RUPPs** exist as of May 2025, but only **~750** contested the 2024 general elections.
- Many parties do not update office bearer lists or conduct internal elections.
- The **RP Act, 1951**, does **not empower the ECI to de-register parties** except under exceptional cases:
 - Registration obtained via fraud.
 - Party declared unlawful by the Government.
 - Party ceases to abide by the Indian Constitution.

Judicial Precedent:

- *Indian National Congress vs. Institute of Social Welfare (2002)*: Supreme Court ruled that ECI has **no general power to de-register** political parties.

ECI's De-Listing Drive and Current Developments

- March 2024 Notification (amended May 2025):
 - **281 RUPPs** de-listed.
 - **217 declared inactive** (no updated records since 2014).

Institutional & Policy Challenges

- **Lack of De-registration Power:** Absence of legislative backing to de-register inactive parties restricts ECI's capacity to act.
- **Misuse of Financial Provisions:** Many RUPPs exist merely to exploit **tax exemptions** or launder money through political donations.
- **Poor Enforcement of Internal Democracy:** Periodic elections and transparency in leadership selection largely absent.

Reform Recommendations and Way Forward

■ Legal Reform:

- **Law Commission's 255th Report (2015):** Proposed that parties not contesting elections for **10 consecutive years** be de-registered.
- **Law Commission's 170th Report:** Recommended provisions for **inner-party democracy** in RP Act.
- **ECI's 2016 Electoral Reforms Memorandum:** Called for **amending RP Act to empower ECI** to de-register parties.

Enhancing Oversight and Compliance:

- Strict enforcement of **Section 29C** of RP Act on donor disclosure.
- Annual third-party audit of party financials.

Transparency Measures:

- Publicly available compliance reports.
- Digital tracking of party registration, office location, and updates.

Inner-Party Democracy:

- Mandate time-bound **internal elections**.
- Penalties for non-compliance, including **freezing of symbols** or tax benefits

PYQ:

Q: "To enhance the quality of democracy in India the Election Commission of India has proposed electoral reforms in 2016." What are the suggested reforms and how far are they significant to make democracy successful? (2017)

ADOLESCENT HEALTH IN THE TIME OF CLIMATE CHANGE:

A new Lancet Commission report has projected that by 2030, half of the two billion adolescents worldwide will live in multi-burden countries grappling with an excess burden of disease. By 2030, 42 million years of healthy life will be lost to mental disorders or suicide, and 464 million adolescents will be obese or overweight.

Key challenges for India:

- **Triple burden of disease:** In India, the double burden of malnutrition, i.e. undernutrition and overnutrition, is stark. Data indicates that 52% of girls and 20.8% of boys aged 10-24 are anaemic, far exceeding the target of less than 10%. Additionally, the disability-adjusted life years (DALYs) attributed to communicable, maternal, and nutritional conditions are higher among both girls and boys.
- **Mental health crisis:** Mental health disorders are a growing concern, exacerbated by excessive and problematic use of technology and digital devices. The interrelated crises of climate change, biodiversity loss, and pollution further impact mental health, adding layers of stress and uncertainty.
- **Climate change and conflict:** Adolescents will be the first to face the lifelong impacts of climate change, with half of the world's two billion adolescents projected to live in multi-burden countries by 2030. In India, environmental degradation, coupled with rising conflict and migration, will further limit the opportunities for young people.

- **Socioeconomic and gender disparities:** Economic and political instability, coupled with gender-specific challenges, hinder equitable access to health services. Nutritional deficiencies, particularly among girls, and limited access to age- and gender-sensitive programs exacerbate disparities.

Significance:

- **Demographic Dividend:** With adolescents forming a significant portion of India's population, their health and well-being are critical to harnessing the demographic dividend.
 - The 'Economic Case for Investment in the Well-being of Adolescents in India' report (2024) estimates that increased investment in adolescent health could boost India's GDP by 10.1% annually.
- **National Adolescent Health Strategy:** The handbook operates across six major thematic areas: sexual and reproductive health, mental health, injuries and violence (including gender-based violence), nutrition, substance misuse, and non-communicable diseases.
- **Sustainability and resilience:** Adolescents are at the forefront of the green economy and climate resilience. Their involvement in policy-making and program design is crucial for sustainable development.

Way Forward:

- **Policy Interventions for nutrition and obesity:** India needs to implement policies such as taxing sugar-sweetened beverages, improving access to healthy food, and promoting physical activity through access to green spaces.
- **Mental Health and resilience building:** Investing in operational research to develop evidence-based mental health care models is critical.
- **Climate resilience and youth engagement:** Adolescents must be included in climate policy discussions to ensure their voices shape the green economy.
- **Infrastructure and Safety:** India's efforts in Gurugram, Haryana, demonstrate how road safety measures can reduce adolescent mortality from traffic injuries. Scaling such initiatives nationwide, including safer crosswalks and speed reduction measures, can enhance adolescent safety.
- **Multisectoral collaboration:** The complexity of adolescent health demands multisectoral responses. Collaborative efforts between the government, private sector, and civil society can drive innovation and resource allocation.

EMPLOYMENT LINKED INCENTIVE (ELI) SCHEME

On July 2025, the Union Cabinet approved the Employment Linked Incentive (ELI) Scheme with a financial outlay of ₹99,446 crore to generate over 3.5 crore jobs across India, with special emphasis on first-time employees and job creation in the manufacturing sector.

Employment Linked Incentive (ELI) Scheme

Objectives and Strategic Vision

■ Addressing Structural Labour Market Challenges

- Targeting low formalisation of the labour force.
- Combating sluggish employment growth in the manufacturing sector.
- Providing structured incentives for youth integration into formal workforce.
- Doubling as Social Security and Financial Inclusion Reform
 - ◆ Incentivising EPFO registration and continuous employment.
 - ◆ Encouraging financial literacy among first-time employees.
 - ◆ Ensuring savings through mandatory financial deposits.

Key features:

- Part A – Incentives for First-Time Employees
 - Coverage: First-time EPFO-registered employees with salaries up to ₹1 lakh/month.
 - Incentive: One month's EPF wage (up to ₹15,000), disbursed in two instalments:
 - ◆ After 6 months of continuous service.
 - ◆ After 12 months + financial literacy completion.
 - Savings Link: Partial amount deposited in a savings instrument for long-term planning.
 - **Targeted Beneficiaries:** 1.92 crore workers.

■ Part B – Incentives for Employers to Create and Retain Jobs

- Employer Incentive (per new hire per month):
 - ◆ ₹1,000 (salary up to ₹10,000),
 - ◆ ₹2,000 (₹10,001–₹20,000),
 - ◆ ₹3,000 (₹20,001–₹1 lakh).
- Minimum hiring thresholds:
 - ◆ At least 2 new employees (staff <50),
 - ◆ At least 5 new employees (staff ≥50).
 - ◆ **Duration:** 2 years (all sectors), 4 years (manufacturing sector).
 - ◆ **Projected Impact:** Creation of 2.6 crore jobs.

Implementation Mechanism

■ Disbursement Channels

- **Direct Benefit Transfer (DBT)**-based approach to ensure transparency.
- **ABPS (Aadhaar-based)** for employee incentives.
 - ◆ **PAN-linked accounts** for employer reimbursements.

■ Compliance and Accountability

- Incentives linked to employee retention and continuous employment for minimum 6–12 months.
- EPFO and financial literacy as eligibility markers.

Broader Implications

■ Formalisation of Labour Market

- Integration of informal workers into social security mechanisms.
- Long-term impact on EPF coverage and financial inclusion.

■ Sectoral Focus and Economic Multiplier

- Prioritisation of manufacturing aligns with India's production-led growth strategy.
- Encourages MSMEs and startups to expand workforce in a cost-effective manner.

■ Concerns Raised

- Trade unions (e.g., CITU) flagged potential misuse and inadequate accountability for employers.
- Risk of substitution effect – replacing existing workers to avail incentives.

INDIA & SCO

The Shanghai Cooperation Organisation (SCO) defence ministers' meeting couldn't issue a joint communique on 26th June after India refused to endorse the document because it didn't address its terrorism-related concerns.

More about the news:

- The defence minister attended the meeting at Qingdao in China, refused to sign the joint communique as it was silent on the April 22 Pahalgam terror attack.
- The communique, however, mentioned Balochistan and the hijacking of the Jaffer Express by Baloch militants.
- Pakistan's insistence on not having any reference to the Pahalgam attack, while retaining the reference to the situation in Balochistan, stymied the finalisation of a joint statement.
- The SCO works by consensus, and a joint communique cannot be issued if even one member state doesn't endorse it.
- China, the current president of the SCO, has deep military and strategic ties with Pakistan, which it strongly supported during the recent four-day clashes with India under Operation Sindoor.

India's Call for Unified Action Against Terrorism

- In his address at the SCO summit, the defence minister urged member states to **unite against terrorism in all**

its forms, emphasising that perpetrators, organisers, financiers, and sponsors of terrorism must be held accountable.

- He stressed that **peace and prosperity** cannot coexist with terrorism or the proliferation of weapons of mass destruction in the hands of non-state actors.
- His call for decisive action underscored the need for SCO members to align in **strengthening regional stability and security**.

Role of Regional Anti-Terrorist Structure (RATS) in Countering Radicalisation:

- **Coordination and information sharing:** RATS serves as a platform for SCO member states to share intelligence on terrorist activities and radicalisation trends.
- **Countering Extremist Propaganda:** It has been recognised for its work in the cyber domain, particularly in preventing the spread of extremist propaganda online.
- **Policy and Strategy Development:** RATS facilitates the adoption of anti-terror measures, such as the SCO Council's joint statement on "Countering Radicalisation Leading to Terrorism."
- **Capacity Building and Training:** RATS conducts joint training programs and exercises to enhance the capabilities of law enforcement and security agencies in SCO member states.

Challenges faced by SCO:

- **Diverse Interests and Geopolitical Rivalries:** The SCO comprises countries with differing political systems, economic priorities, and strategic goals, such as China, Russia, India, and Pakistan. Conflicting interests, like the India-Pakistan rivalry, hinder cohesive decision-making.
- **Counterterrorism and radicalisation challenges:** The SCO's Regional Anti-Terrorist Structure (RATS) faces difficulties in addressing evolving terrorist tactics, including online radicalisation and cross-border extremism.
- **Uneven Economic Capacities:** Member states have different economic strengths, with China dominating trade and investment initiatives. Smaller economies like Kyrgyzstan and Tajikistan struggle to benefit equally.
- **Sanctions and Global Dynamics:** Sanctions on Russia and concerns over China's global influence affect the SCO's ability to engage with international financial systems and attract investment.
- **Regional Instability:** Central Asian member states face internal challenges like political instability, corruption, and ethnic tensions, which undermine SCO initiatives.

Shanghai Cooperation Organisation (SCO)

- The Shanghai Cooperation Organisation (SCO) is a Eurasian political, economic, international security and defence organisation of ten member states.
- It was established in 2001 by the People's Republic of China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan and Uzbekistan.
- In June 2017, it expanded to eight states, including India and Pakistan.
- Iran joined the group in July 2023, and Belarus in July 2024.
- The SCO is governed by the Heads of State Council (HSC), its supreme decision-making body, which meets once a year.
- The organisation also contains the Regional Anti-Terrorist Structure (RATS).

UPSC PYQ

Q: 'Virus of Conflict is affecting the functioning of the SCO' In light of the above statement, point out the role of India in mitigating the problems. (2023)

INDIA & BANGLADESH

The official spokesperson of the Ministry of External Affairs said that India is willing to discuss all issues with Bangladesh in a "conductive" environment, emphasising that established modalities exist between Dhaka and New Delhi that can deal with a full spectrum of bilateral relations.

Historical Context and Strategic Importance

- India and Bangladesh share a 4,096-km border, making their relationship critical for regional stability and security.
- The 1971 Liberation War, where India played a pivotal role in Bangladesh's independence, laid the foundation for strong ties.
- Bangladesh is India's largest trading partner in South Asia, with bilateral trade reaching \$12.9 billion in 2022-23.
- Initiatives like the India-Bangladesh Friendship Pipeline and the Akhaura-Agartala rail link highlight the deepening economic integration.

Current Issues in India-Bangladesh Relations:

- **Political Tensions and Domestic Dynamics:** Recent political developments in Bangladesh, including concerns over democratic processes and human rights, have strained bilateral relations. India's perceived

support for certain political factions has been a point of contention, with some sections in Bangladesh viewing it as interference.

- ◉ **Border Management and Security:** The India-Bangladesh border, while a symbol of connectivity, faces challenges like illegal migration, smuggling, and cross-border crime.
- ◉ **Water sharing disputes:** The sharing of transboundary river waters, particularly the Teesta River, remains a long-standing issue. Despite multiple rounds of talks, a final agreement on Teesta water sharing is pending.
- ◉ **Trade Imbalances:** While bilateral trade is robust, Bangladesh has raised concerns about trade imbalances, with India enjoying a significant surplus.

Opportunities for Strengthening Ties:

- ◉ **Economic Cooperation:** Enhancing trade and investment can deepen bilateral ties. India can facilitate greater market access for Bangladeshi goods, such as ready-made garments, and promote joint ventures in sectors like renewable energy and technology.
- ◉ **Connectivity Initiatives:** Projects like the Maitri Setu bridge and the Chittagong-Mongla port access for Indian cargo underscore the potential for connectivity-driven growth.
- ◉ **Climate and Energy Collaboration:** Both nations face climate change challenges, including rising sea levels and natural disasters. Collaborative efforts in disaster management, renewable energy, and sustainable development can strengthen ties.
- ◉ **People-to-People Connect:** Cultural exchanges, educational scholarships, and tourism can foster goodwill.

QUAD (QUADRILATERAL SECURITY DIALOGUE)

External Affairs Minister during the Quad Foreign Ministers' meeting in Washington DC, reaffirmed India's right to self-defence against terrorism and called for greater appreciation from Quad partners. The meeting also reviewed progress in key Quad initiatives and Indo-Pacific cooperation.

QUAD (Quadrilateral Security Dialogue)

- ◉ **Members:** India, United States, Japan, Australia
- ◉ **Nature:** Informal strategic forum, not a military alliance
- ◉ **Inception:** Proposed in 2007 by Japanese PM Shinzo Abe; revived in 2017
- ◉ **Core Principles:**
 - Free, open, inclusive, and rules-based Indo-Pacific
 - Maritime security, infrastructure connectivity, resilient supply chains
 - Climate cooperation, critical technologies, and humanitarian response

Significance of QUAD for India

■ Strategic Counterbalance to China

- Acts as a soft security alliance amid border tensions with China (e.g., Galwan clashes, 2020)
- Malabar Naval Exercises enhance maritime deterrence
- India's 'Necklace of Diamonds' strategy counters China's 'String of Pearls'

■ Technological and Economic Cooperation

- **QUAD Critical & Emerging Technology Forum:** Focuses on AI, Quantum, Biotech
- **National Quantum Mission (India):** Supported by QUAD collaboration
- **Indo-Pacific Economic Framework (IPEF):** Offers alternatives to China-led trade arrangements

■ Infrastructure Development

- **QUAD Infrastructure Coordination Group** aligns with:
 - ◆ India's International North-South Transport Corridor (INSTC)
 - ◆ Vision for regional connectivity and strategic influence

■ Maritime Domain Awareness

- **Indo-Pacific Maritime Domain Awareness (IPMDA)** launched in 2022
- Enhances real-time tracking of vessels, combats illegal fishing and piracy

■ Climate and Disaster Response

- **QUAD Climate Adaptation Package (Q-CHAMP)** supports:
 - ◆ Green shipping corridors
 - ◆ Renewable energy cooperation
 - ◆ Early warning systems and disaster mitigation

■ Cyber Security and Critical Technologies

- **QUAD Cybersecurity Partnership (2023)** enhances regional cyber resilience
- Launch of **Open Radio Access Networks (RAN)** in the Pacific (USD 20 million committed)
- Semiconductor supply chains and secure telecom infrastructure supported

Major Challenges for India within QUAD

■ China's Perception and Bilateral Tensions

- China views QUAD as a containment strategy
- India balances strategic assertiveness with economic ties (bilateral trade: \$135.98 billion in 2022)
- **Divergent Member Priorities**

- US-Australia focus on security; India emphasizes inclusive, non-militarized cooperation
- Differing stances on Ukraine-Russia war highlighted internal divergences

■ Resource and Institutional Constraints

- Domestic priorities may limit India's capacity to fully implement QUAD obligations
- QUAD vaccine initiative saw delays due to internal demand surges

■ Operational and Interoperability Issues

- India's diverse defense imports (especially Russian systems) limit full interoperability
- US CAATSA concerns linked to India's S-400 purchase from Russia

■ Diplomatic Balancing

- India needs to maintain ASEAN centrality and continue BRICS-SCO engagements
- Managing dual participation in QUAD and platforms with China and Russia requires nuanced diplomacy

Strategic Measures for India

- **Issue-Based Alignment:** Focus on tech, cyber, climate, and infrastructure while avoiding rigid security alliances
- **Enhancing Domestic Capacity:** Defense production under 'Make in India' (₹1.08 lakh crore in 2022–23) and \$10 billion semiconductor mission aligns with QUAD tech cooperation
- **Agenda Setting:** Lead in areas like climate (ISA, CDRI), disaster management, and green energy
- **Strategic Autonomy and Diversification:** Engage multilaterally (G20, SCO, ASEAN, BRICS) to preserve diplomatic space
- **Economic and Technological Sovereignty:** Supply Chain Resilience Initiative (SCRI) with Japan-Australia (2021) and **Personal Data Protection Act 2024** strengthens tech governance within QUAD

INDIA & GLOBAL SOUTH

Prime Minister Narendra Modi has embarked on a five-nation tour, including participation in the BRICS Summit in Brazil and bilateral visits to Ghana, Trinidad and Tobago, Argentina, and Namibia. The visit underscores India's strategic focus on strengthening ties with the Global South and reinforcing its commitment to a multipolar world order.

What is the Global South?

- Refers to developing countries primarily in **Asia, Africa, Latin America, and Oceania**.
- Characterized by **higher poverty, limited industrialization, colonial legacies, and underrepresentation** in global governance.
- Contrasted with the **Global North** – developed,

industrialized nations in **Europe, North America, Japan, and Oceania**.

The Brandt Line

- Proposed by **Willy Brandt (1980s)** to depict global economic inequality.
- An **imaginary North-South divide** between rich and poor nations.
- Most Global South countries lie **below the Brandt Line**, in the **Southern Hemisphere**.

India's Historical Role in the Global South

- **Non-Aligned Movement (NAM):** India was a founding leader; promoted strategic autonomy during Cold War.
- **Group of 77 (G-77):** India helped form this bloc to give developing countries a voice at the UN.
- **Stockholm Conference 1972:** India advocated **Common But Differentiated Responsibilities (CBDR), Polluter Pays, and Sustainable Development** principles.

Shift in India's Policy Post-Cold War

- Reduced engagement with **NAM and G-77**.
- Deepened ties with **Global North** (e.g., US, EU, Japan).
- Greater focus on **strategic interests** (e.g., India-US Civil Nuclear Deal).
- Increasing participation in **new forums** like **BRICS, SCO, ASEAN**.

Challenges Faced by the Global South

- **Underrepresentation** in institutions like UNSC, IMF, World Bank.
- **Public Debt Crisis** – as per UNCTAD, debt in developing nations is rising at double the rate of the Global North.
- **Weak dispute resolution** in WTO; marginalization in global financial frameworks.
- **Diverging ideologies** with the West on democracy, rights, and climate action.
- **Impact of geopolitical conflicts** (e.g., Russia-Ukraine war) worsening food and energy insecurity.

India as the Voice of the Global South – Key Initiatives

- **New Delhi Declaration (G20 2023):** Included Global South priorities – debt relief, climate justice, gender equality.
- **Inclusion of African Union in G20:** Pushed by India for greater representation.
- **Voice of Global South Summit (2023):** 120+ countries participated; built solidarity among developing nations.
- **Vaccine Maitri:** Supplied COVID-19 vaccines/medicines to 90+ Global South countries.
- **BRICS Expansion to BRICS Plus:** India supported inclusion of African, West Asian, and Latin American nations.

- **Climate Justice Advocacy:** Strong leadership at **COP28**, including support for **Loss and Damage Fund**.

Hurdles in India's Global South Leadership

- **UNSC Seat Opposition:** Coffee Club (including Global South members) resists G4 expansion.
- **Neglect of NAM and G-77:** Leads to weakening of old alliances.
- **China's Dominance:** China's Belt and Road Initiative (BRI) overshadows Indian efforts.
- **Irregular Engagement:** No India–Africa Summit post-2018; absent at Pacific Island Summit 2023.
- **"Big Brother" Perception:** Allegations of interference in internal matters (e.g., Maldives' "India Out" campaign).
- **Slow Project Delivery:** Delays in key projects like **Kaladan** and **Asia–Africa Growth Corridor** reduce credibility.

Way Forward:

- **Create a Global South Development Bank:** To rival Chinese financing models and increase Indian soft power.
- **Revive NAM and G-77 Engagement:** Increase high-level political participation and relevance.
- **Improve Infrastructure Project Delivery:** Focus on time-bound execution of development partnerships.
- **Promote Mutual Respect Diplomacy:** Avoid coercive tactics; build trust-based relationships.
- **Institutionalize Regular Summits:** Reinstate and expand **India–Africa** and **India–Pacific Island** summits.
- **Capacity Building Focus:** Share Indian expertise in MSMEs, digital infrastructure, climate resilience, health, and food security.

INDIA AND THE NEW WORLD ORDER

Eurasia is in turmoil. Three major conflicts- Russia-Ukraine, Israel's Gaza operations and the Israel-Iran-US conflict are reshaping the geopolitics of the region. Wars don't just cause physical destruction; they profoundly impact international relations. Given the present situation, it is time for India to reconfigure its global engagements, going beyond old-world romanticism and Cold War calculations.

India's Geostrategic Challenges:

- **Rise of China and BRI:** The Belt and Road Initiative has become a cornerstone of its global strategy, fostering economic connectivity and influence across Asia, Africa, and Europe.
- **Energy Security:** Conflicts in Ukraine, Gaza, and Iran-Israel tensions also create challenges for India's energy security.
- **The IMEC Initiative:**

- Launched in 2023 during the G20 summit in New Delhi, the India-Middle East-Europe Economic Corridor (IMEC) aims to connect South Asia, the GCC, and Europe through a network of sea and land routes.
- However, **IMEC faces significant challenges:**
 - ♦ **Geopolitical Instability in Eurasia:** Particularly in the Middle East, threatens the viability of IMEC's land routes through countries like Jordan and Israel.
 - ♦ **Flawed Positioning:** IMEC is often pitted against China's BRI, conflating geo-economic goals with geopolitical rivalry. This framing ignores the reality that many IMEC partner countries, including GCC nations and EU states, are deeply integrated into the BRI.

Addressing IMEC's Structural Challenges:

- Include countries like Jordan and Egypt in the corridor.
- Investing in rail and port infrastructure to handle the massive cargo volumes currently managed by the Suez Canal.
- Reframe IMEC as a complementary economic initiative rather than a rival to the BRI, fostering cooperation with BRI-partner countries.

Adopting a multidirectional approach:

- **Moving beyond old-world romanticism:** India's foreign policy has often been shaped by historical narratives, such as the romanticised view of ancient trade routes with Europe through Gulf ports. While India historically exported spices and textiles in exchange for gold, modern realities differ.
- **Strengthening ties with the middle east:** India's enhanced engagement with Saudi Arabia and the UAE has been a diplomatic success. These relationships should be deepened to ensure IMEC's stability and to counterbalance China's influence in the region.
- **Reinvigorating ASEAN engagement:** India must prioritise its Act East Policy by boosting trade and investment with ASEAN countries, leveraging the comprehensive strategic partnership established in 2022.
- **Engaging Eastern and Central Europe:** Beyond Western Europe, India should explore opportunities in Eastern and Central European markets, which are less saturated by Chinese influence.
- **Reassessing relations with Russia:** With Russia's growing alignment with China, India must carefully calibrate its strategic partnership with Moscow to safeguard its interests in Central Asia and beyond.

PYQ

Q: "The long-sustained image of India as a leader of the oppressed and marginalised Nations has disappeared on account of its new found role in the emerging global order". Elaborate. (2019)

GIG WORKERS' INVISIBILITY

The Union Budget 2025 recognised gig and platform workers by extending social protection schemes. However, the revised Periodic Labour Force Survey (PLFS) 2025 failed to incorporate specific classifications for these workers, limiting data-driven welfare interventions.

Definition & Legal Classification of Gig Workers

- **Codification under Social Security Code, 2020:** Gig workers are defined under Section 2(35) of the Code on Social Security, 2020, distinguishing them from traditional employer-employee frameworks.
- **Ambiguity in Terminology:** Despite the legal mention, lack of clarity around task structure, hybrid work nature, and algorithmic governance remains.
- **NITI Aayog Estimates:** India's gig workforce is projected to reach 23.5 million by 2029–30, yet it lacks robust statistical representation.

Issues in Current PLFS Framework

- **Vague Categorisation:** Gig work is subsumed under broader PLFS categories like "self-employed" or "casual labour," masking its unique vulnerabilities.
- **Ministry Response & Statistical Shortcomings:** The government stated gig workers are included as part of "economic activity," but failed to modify classifications for digital labour.
- **Invisible Labour Dynamics:** PLFS overlooks characteristics such as lack of contracts, income volatility, multiple-app employment, and algorithmic control.

Social Security and Policy Challenges

- **Unrealised Welfare Intentions:** Provisions under Clause 141 of the Social Security Code remain weak due to poor data-backed targeting.
- **Exclusion from Access:** Gig workers often remain outside the net of Ayushman Bharat, digital health IDs, and other schemes due to their statistical invisibility.
- **Gap Between Recognition and Representation:** While administrative mechanisms like e-Shram exist, the absence of a separate PLFS category results in under-coverage and policy inefficiency.

Way Forward

- **Institutional Realignment of PLFS:** A special classification code for gig and platform workers must be introduced in PLFS to disaggregate employment data effectively.
- **Survey Methodology Reform:** Questionnaire modules should reflect platform-based task work, multiple job holdings, contract type, algorithmic dependence, and social security access.
- **Inter-Agency Coordination:** National Statistical Office (NSO), NITI Aayog, and the Ministry of Labour must

collaborate to ensure integrated, inclusive labour data generation.

- **Expansion of Welfare Boards:** Gig workers must be included in State-level welfare boards under dedicated categories for monitoring benefit delivery.
- **Promoting Digital Labour Equity:** With India's increasing digital economy footprint, inclusion of gig workers in employment datasets is critical for equitable growth and social protection.

INDUSTRIAL SAFETY FAILURE IN TELANGANA

Context

On July 1, 2024, a powerful explosion at *Sigachi Industries Pvt. Ltd.*, a pharmaceutical unit in *Pashamylaram industrial area of Telangana*, claimed at least 17 lives and injured over 30 workers. The incident highlights glaring deficiencies in industrial safety, regulatory compliance, and emergency response mechanisms, despite the existence of an elaborate legal framework in India.

Industrial accidents in India:

■ Scale of the Problem

- **130 major chemical accidents** reported in India in the past **10 years** (NDMA data).
- Resulted in **259 deaths** and **563 major injuries**.
- Fatal accidents recurring: Major industrial accidents reported in **2016, 2018, 2020, and 2023**.

Common Causes of Industrial Accidents

■ Lack of Safety Measures

- Inadequate safety training.
- Poorly maintained or unregistered machinery (e.g., **boiler not registered under Indian Boiler Regulations, 1950**).
- Non-compliance with hazard signage requirements.

■ Human Error

- Negligence, fatigue, or lack of awareness.

■ Unsafe Work Environments

- Congested layouts, inadequate ventilation.
- Especially risky in **chemical-intensive sectors** (e.g., pharma, textiles).

■ Machinery Malfunctions

- Outdated equipment or maintenance lapses.
- Workers at high risk of amputations and crush injuries (e.g., auto-sector).

❑ Electrical Hazards

- Short circuits, overloaded wiring.

❑ Chemical Exposure

- ◆ Leaks, spills, or inhalation causing **acute or chronic health issues**.

Inspection and Prosecution Gaps

- **Low Inspection Rates for Hazardous Factories (2021):**
 - Maharashtra: **23.89%**
 - Tamil Nadu: **25.39%**
 - Gujarat: **19.81%**
 - National average: **26.02%**
- **Poor Prosecution Rates:**
 - Gujarat: **6.95%**
 - Maharashtra: **13.84%**
 - Tamil Nadu: **14.45%**

Impact on Workers

- **Physical Injuries:** Cuts, fractures, burns.
- **Permanent Disabilities:** Loss of limbs, especially in heavy machinery sectors.
- **Fatalities:** Recurring with poor emergency preparedness.
- **Long-Term Illness:** Respiratory issues, skin ailments, **cancer due to chemical exposure**.

Legal and Regulatory Framework

- **Factories Act, 1948** (with 1987 Amendment): Core legal provision for factory safety.
- **Indian Boiler Regulations, 1950:** Mandatory registration for operational boilers.
- **Occupational Safety, Health and Working Conditions Code, 2020:**
 - Consolidates 13 labour laws.
 - Covers health and safety of workers in factories and hazardous units.
- **Environment (Protection) Act, 1986:** Governs industrial pollution and accident risk.
- **Public Liability Insurance Act, 1991:** Mandates compensation in hazardous industries

Government Initiatives

- **National Policy on Safety, Health and Environment at Workplace (NPSHEW)**

- **Industrial Safety & Disaster Management Plans**
- **NDMA Guidelines on Chemical (Industrial) Disasters**
- **Labour Inspection and Enforcement System (Sharam Suvidha Portal)**
- **Bureau of Indian Standards (BIS):** Sets norms for industrial equipment and safety practices.

Global Frameworks and Support

- **ILO Global Strategy on Occupational Safety and Health (2024–2030):** Promotes global workplace safety standards. and aligns with SDGs and decent work agenda.
- **OECD Chemical Accidents Programme:** Framework for prevention, preparedness, and response.
- **EU Seveso Directive:** Focused on **Major Accident Hazard (MAH)** installations.
- **UN Environment:** National chemical safety and capacity-building programmes.
- **WHO:** Public health management during chemical incidents.
- **UNDRR:** Advocates for disaster resilience in industrial clusters.
- **OPCW:** Promotes chemical safety and secure handling practices.

Way Forward

- **Mandatory Risk Assessment Audits** for hazardous factories.
- **Digital Factory Registries** with real-time safety compliance tracking.
- **Training & Capacity Building** for factory workers and safety officers.
- **Community Awareness Programs** near chemical industrial zones.
- **Stringent Penalties** for violation of safety norms and regulatory negligence.
- **Third-party inspections** to reduce collusion and increase objectivity.



SECTION -B

QUICK BYTES

TELANGANA'S BONALU FESTIVAL

Context:

Bonalu festival, which symbolises the unique culture of Telangana, began on June 26, 2025, amid fanfare with devotees offering the first Bonam to goddess Jagadambika at historic Golconda Fort. This month-long festival, deeply rooted in the socio-religious fabric of the region, is a significant marker of Telangana's identity.

Historical and Cultural Significance:

- **Origins and Evolution:** Bonalu, believed to have originated over 150 years ago, is linked to a cholera outbreak in Hyderabad.
 - Devotees attributed the epidemic to the wrath of Goddess Mahankali and began offering Bonam, i.e. cooked rice, jaggery, curd, and neem leaves in decorated pots, to appease her.
- **Cultural Identity of Telangana:** Bonalu is a testament to Telangana's unique cultural identity, blending indigenous traditions with devotional practices.
 - The festival, celebrated in three phases—Golconda Bonalu, Lashkar Bonalu at Ujjaini Mahankali temple in Secunderabad, and concluding at Sri Simhavahini Mahankali temple and Sri Akkanna Madanna Mahankali temple in Hyderabad's old city.

■ Socio-Religious Dimensions:

- **Community Participation:** The Bonalu festival fosters social unity through its vibrant processions and collective rituals.
- **Role of Women:** They are at the heart of Bonalu, leading the offerings of Bonam and participating in large numbers.

■ Contemporary relevance:

- **Balancing Tradition and Modernity:** Bonalu's celebration in urban centres like Hyderabad illustrates the balance between tradition and modernity.
- **Socio-Economic Implications:** The festival also has economic implications, as it boosts local businesses and tourism.

SANTHAL UPRISING AND HUL DIWAS)

Context:

On **June 30**, observed as **Hul Diwas**, the **Prime Minister of India** paid a heartfelt tribute to the **Santhal martyrs** who launched one of the earliest and most organized tribal uprisings against British colonial rule in **1855**.

Santhal Uprising (Santhal Hul) – 1855

Background & Context

- **Date:** Began on **30 June 1855** (commemorated as *Hul Diwas*).
- **Location:** **Damin-i-Koh** region, Rajmahal Hills (now in Jharkhand).
- **Nature:** India's **first organized tribal rebellion** against British colonial rule, predating the 1857 Revolt.

■ Reason:

- **Oppressive revenue system** under the *Permanent Settlement*.
 - ◆ Exploitation by **moneylenders, landlords (zamindars)** and **British agents**.

- ◆ **Bonded labour** systems like **kamioti** and **harwahi**.
- ◆ **Loss of land** due to encroachments by non-tribals.

Key Leaders

- **Sidhu Murmu & Kanhu Murmu** – principal leaders.
- **Chand & Bhairav, Phulo & Jhano** – other notable revolutionary figures.
- Leadership marked by **tribal unity** of **32 different castes/communities**.

Course of Revolt

- Santhals declared independence from British rule and set up a **parallel administration**.
- Armed with **bows, arrows, axes**, and local weapons.
- Brutally suppressed by British using **military reinforcements and scorched-earth tactics**.
- Thousands of Santhals were killed, including Sidhu and Kanhu.

Consequences

- Led to creation of a **separate administrative district** – *Santhal Parganas*.
- Resulted in the enactment of protective land laws:
 - **Santhal Parganas Tenancy Act, 1876 (SPT Act)**:
 - ◆ Prevents **transfer of tribal land to non-tribals**.
 - **Chota Nagpur Tenancy Act, 1908 (CNT Act)**:
 - ◆ Restricts **alienation of land** belonging to **Adivasis and Dalits**.
 - ◆ Land can be transferred only **within the same community** and **with Collector's approval**.

Santhal Tribe – Key Facts

Origin & Migration

- Originally from **Birbhum & Manbhum** regions (now in West Bengal).
- Migrated to present-day **Jharkhand (Damin-i-Koh)** due to:
 - **1770 Bengal famine**.
 - British invitation for **clearing forests and cultivation** under **Permanent Settlement (1790s)**.

Demographics

- **India's 3rd-largest Scheduled Tribe** (after Gonds & Bhils).
- Major population in: Jharkhand, Bihar, Odisha, West Bengal, and Assam.

Language & Script

- **Language: Santhali** – included in **8th Schedule of the Constitution** (since 2003).

- **Script: Ol Chiki**, developed by **Pandit Raghunath Murmu** in 1925.

Culture and Festivals

- Predominantly **agrarian society**.
- Celebrates traditional nature and harvest-linked festivals:
 - **Sohrai** – cattle worship & harvest festival.
 - **Baha** – flower festival.
 - **Karam** – worship of Karam tree for prosperity.

Religion & Beliefs

- Follow **Sarna/Dharmic animistic traditions**.
- Worship **nature spirits, ancestral spirits**, and village deities (e.g., *Marang Buru*).

INSTANT BIRTH CERTIFICATION

Context:

The Registrar General of India (RGI) has asked all States to ensure that birth certificates are issued to mothers of newborn children before they are discharged from hospitals, particularly government-run hospitals, which account for more than 50% of institutional births in the country.

Registration of births in India:

- A birth certificate is issued by the registrar in accordance with Section 12 of the Registration of Births and Deaths (RBD) Act, 1969.
- The RBD Act, 1969 which was amended in 2023, mandates registration of all births and deaths on the Centre's portal from October 1, 2023.
- Earlier, States maintained their own database and shared statistics with the RGI office under the Ministry of Home Affairs (MHA).
- From October 1, 2023, the digital birth certificate is the single document to prove the date of birth for various services such as admission to educational institutions, government jobs, marriage registration, among others.

Measures taken by the RGI office to make the registration process smooth and user-friendly:

- RGI office announced that the registrar should give the birth certificate as soon as the registration of birth is completed, "but not later than seven days" in an electronic or other format.
- Amendment to the Registration of Births and Deaths Act, 1969.
- Corresponding amendment to the State Registration of Births and Deaths Rules.
- Development of a new Central CRS portal.

MOTHER TONGUE FLEXIBILITY

Context:

Central Board of Secondary Education (CBSE) officials said that Schools in metropolitan regions, whose primary medium of instruction is English, may find it challenging to immediately transition to the mother tongue as a medium of instruction due to the varied languages spoken by students in diverse communities.

CBSE's Language Implementation Guidelines:

- CBSE Chairman has emphasised that the board's goal is to facilitate the NEP-2020's mother tongue instruction mandate.
- For instance, in schools where students predominantly speak a regional language like Kannada, non-language subjects such as Mathematics should be taught in that language alongside English.
- However, the board acknowledges the complexity of implementing this in schools with diverse linguistic populations, particularly in metropolitan areas.
- Approximately 800–900 urban schools, out of over 30,000 CBSE-affiliated institutions, face challenges due to students speaking multiple mother tongues.
- School officials also added that there are issues with dialects.
 - For example, Bihar has people who speak multiple dialects like Bajjika, which is spoken in northern Bihar; Angika, which is spoken in parts of Bihar and Jharkhand; Magahi, and Awadhi. It will be difficult to offer a medium of instruction in each dialect.

CBSE's Supportive Approach:

- CBSE emphasised that it is not forcing any school to immediately adopt the language implementation guidelines.
- It is also not penalising any school or stating that their affiliation will be cancelled if they don't immediately transition.
- It aims at organising a series of webinars and workshops for training purposes to be able to implement the policy.

KISHENGANGA AND RATLE HYDROELECTRIC PROJECTS

Context:

India rejected the supplemental award by the Court of Arbitration on Kishenganga and Ratle hydroelectric projects, saying that it "never recognised" the Court of Arbitration, which is a "serious breach" of the Indus Waters Treaty, which has been put "at abeyance" after the April 22 terror attack in Pahalgam.

Recent Dispute: Kishenganga and Ratle Hydropower Projects

- These Projects are located in Jammu and Kashmir, on tributaries of the Jhelum and Chenab rivers (Western rivers).
- Pakistan raised objections to the design and technical aspects of these projects, alleging violations of the Indus Water treaty provisions.
- Pakistan approached the World Bank to establish a Court of Arbitration to resolve these technical disputes.

India's position:

- India's stance regarding this Court of Arbitration was that it was a "unilateral action" by Pakistan to approach the World Bank.
- India has never recognised the legitimacy of the Court of Arbitration, calling it an "illegal" body.
- The MEA reminded that after the Pahalgam terror attack, India has exercised "its rights as a sovereign nation under international law" and placed the Indus Waters Treaty in abeyance.

Indus Waters Treaty (IWT):

- Signed in 1960 between India and Pakistan, brokered by the World Bank.
- It allocates waters of the Indus River system:
 - Eastern rivers (Sutlej, Beas, Ravi) to India.
 - Western rivers (Indus, Jhelum, Chenab) to Pakistan.
- Establishes a mechanism for dispute resolution through bilateral talks, a Permanent Indus Commission, or neutral experts, with the Court of Arbitration as a last resort.

INCREASE IN AGRICULTURE AND ALLIED SECTOR GVA

Context:

According to the 'Statistical Report on Value of Output from Agriculture and Allied Sectors (2011-12 to 2023-24)' released by Ministry of Statistics and Programme Implementation the Gross Value Added (GVA) of agriculture and allied sectors at current prices registered a growth of about 225%, increasing from ₹1,502 thousand crore in 2011-12 to ₹4,878 thousand crore in 2023-24.

Crop Sector Contribution:

- Crop sector remains the largest contributor to Gross Value Output (GVO) at constant prices with a share of 54.1% in 2023-24 (₹1,595 thousand crore).
- Cereals, fruits, and vegetables together account for 52.5% of crop GVO in 2023-24.

- ▶ Paddy and wheat dominate cereals, contributing 85% of cereal GVO (at constant prices) in 2023-24.
- ▶ Key states (Uttar Pradesh, Madhya Pradesh, Punjab, Telangana, Haryana) contribute 53% of cereal GVO in 2023-24.
- ▶ Uttar Pradesh leads in cereal GVO, though its share declined from 18.6% (2011-12) to 17.2% (2023-24).

■ Fruits and Vegetables:

- ▶ Among the fruits, the constant prices GVO of Banana (₹ 47 thousand crore) has surpassed that of Mango (₹ 46.1 thousand crore).
- ▶ Among the vegetables, potato remained the top-most contributor in GVO.

■ Condiments and spices:

- ▶ Share of Madhya Pradesh (19.2%) in GVO of condiments & spices in 2023-24 made a dramatic leap, becoming the top contributor in this group, while Karnataka and Gujarat followed with 16.6% and 15.5%.
- ▶ The contribution of the 'Fishing and aquaculture' sub-sector to agricultural GVA rose from 4.2% in 2011-12 to 7.0% in 2023-24.

- This expansion spans diverse product categories, including electronics, fashion, groceries, and household goods.
- The rise of quick commerce (q-commerce), led by platforms like BigBasket, Blinkit, Swiggy Instamart, and Zepto, has redefined consumer expectations with ultra-fast delivery services.
- Major players like Amazon and Flipkart are also adapting to this trend, driving innovations in logistics, warehousing, and delivery systems.

Opportunities and Challenges

- The projected trillion-dollar digital economy presents a **fivefold increase in value creation** compared to the previous decade.
- Consumer startups, such as Swiggy, Flipkart, and UrbanCompany, are poised to capitalise on this growth, supported by AI-driven personalisation and content consumption trends.
- However, **challenges remain**, including:
 - ▶ **Digital Divide:** Ensuring equitable access to technology in rural and semi-urban areas.
 - ▶ **Regulatory Framework:** Balancing innovation with consumer protection and data privacy.
 - ▶ **Infrastructure Scalability:** Meeting the logistical demands of rapid e-commerce and q-commerce growth.

CONSUMER-DRIVEN ECONOMY

Context:

According to a report titled 'Click, Watch, Shop: The Consumer Opportunity in India' by Bessemer Venture Partners, more than 60 per cent of India's economy is consumer-led, and a large share of this value is expected to go to consumer startups.

Foundations of India's Digital Economy

- India's digital economy, valued at approximately \$200 billion, has been propelled by technological disruptions over the past decade, including widespread smartphone adoption, e-commerce growth, and the Unified Payments Interface (UPI).
- Affordable mobile data (\$0.15 per GB) has democratized internet access, connecting over 800 million Indians.
- The number of online shoppers has surged from negligible in 2010 to 238 million in 2024, making India the second-largest e-commerce market globally, behind China.
- By 2030, this figure is expected to reach 500 million, driven by rising disposable incomes and a young demographic.

E-Commerce and Quick Commerce Revolution

- The online commerce sector has grown from \$30 billion in 2020 to \$123 billion in 2024, with projections of reaching \$300 billion by 2030.

ASIATIC WILD DOG

Context:

According to a new study by scientists from the Wildlife Institute of India (WII) dhole, or Asiatic wild dog (*Cuon alpinus*), believed to have been locally exterminated, has made a confirmed return to Assam's Kaziranga-Karbi Anglong Landscape (KKAL).

More about news:

- The finding is significant as it highlights the ecological value of the corridor in supporting threatened species.
- Dholes are social animals known to form packs of up to 30 individuals.
- However, depending on prey availability, they may also hunt alone or in pairs.
- The Dhole was photo-captured on six occasions in the Amguri corridor.
- The current distribution of the dhole is restricted to:
 - ▶ Parts of Central and Eastern Asia, including India, Nepal, Bhutan, Bangladesh, China, Myanmar, Indonesia, Thailand, and Malaysia.
- The last confirmed sighting of dholes in northeast India was reported from Nagaland in 2011.
- The last confirmed sighting of dholes in northeast India was reported from Nagaland in 2011.

- The study focused on four key animal corridors which lie within the Indo-Burma Biodiversity hotspot. These corridors include:
 - Panbari,
 - Haldhibari,
 - Kanchanjuri,
 - Amguri.
- India is experiencing a decline in wildlife species due to:
 - Habitat loss
 - Deforestation
 - Climate change

TIKRI KHURD LAKE AND DELHI'S WATER BODIES

Context:

Tikri Khurd Lake in Delhi remains unnotified as a wetland despite NGT directions and WAD recommendations, highlighting administrative inaction. This exemplifies the broader failure to implement the Wetlands (Conservation and Management) Rules, 2017, in Delhi.

Tikri Khurd Lake:

- Spread across ~40 acres in Narela, under the Delhi Development Authority (DDA).
- Recognized by WAD as a **water body** based on **ground-truthing** and technical committee recommendations (2021).
- DDA opposes its notification, calling it merely a "low-lying sewer water accumulation area."
- NGT (March 29, 2019): Directed conservation regardless of technical classification; criticized DDA for shifting responsibility.

Encroachment & Legal Challenges:

- Over 22% (232 of 1,045) recorded water bodies are proposed for deletion due to encroachment.
- Lack of legal protection without formal wetland notification facilitates this loss.

Ecological Significance of Wetlands:

- Serve critical roles in groundwater recharge, flood mitigation, water purification, and urban microclimate regulation.
- Urban wetlands like Tikri Khurd help prevent waterlogging and floods, especially during monsoon.

Issue of Inter-agency Conflict:

- Delhi's multiple agencies (DDA, Revenue Dept., DJB, WAD) operate in silos.
- Institutional turf wars delay conservation decisions, as evident in Tikri Khurd case.

National Green Tribunal (NGT) Role:

- Acts as a judicial authority for environmental governance.
- Has consistently reprimanded agencies like DDA for non-compliance in wetland conservation.

Wetlands (Conservation and Management) Rules, 2017:

- Framed under the Environment (Protection) Act, 1986.
- Mandates each State/UT to establish a State Wetland Authority.
- Requires identification, inventory, and notification of all wetlands.
- Wetlands include water bodies such as lakes, ponds, marshes, and even man-made reservoirs if they meet ecological criteria.

Wetland Authority of Delhi (WAD):

- Established as per the Rules.
- Responsible for delineation, notification, protection, and rejuvenation of wetlands.
- Yet to notify any wetland officially.

PYQ:

Q: With reference to the 'Wetlands of India', consider the following statements: (2020)

- (1) The Wetlands (Conservation and Management) Rules, 2010 were framed under the Environment (Protection) Act, 1986.
- (2) The Central Wetlands Regulatory Authority (CWRA) was constituted under these Rules.
- (3) India has more than 40 wetlands designated as Ramsar sites.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

10. AGROFORESTRY REFORMS

Context:

In a letter sent to all state governments, the environment ministry said the objective of '**Model Rules for Felling of Trees in Agricultural Lands**' is to enhance the ease of doing business in agroforestry and incentivise farmers to integrate trees into their farming systems.

Key Features of Model Rules:

- ◉ **Governing Body:** State Level Committee (SLC) under the Wood-Based Industries (Establishment and Regulation) Guidelines, 2016.
 - Includes officials from the revenue and agriculture departments.
 - Advises state governments on promoting agroforestry and simplifying rules for felling and transit of trees, especially commercially valuable species.
 - Empanel agencies for verification of applications and timber transit.

Registration and Application Process:

- **Platform:** National Timber Management System (NTMS) portal.
- **Land Registration:** Applicants must register plantation land with details of ownership and location.
- **Provide plantation details:** Number of saplings by species, planting date (month and year), and average seedling height.
- Regular updates are required as per SLC guidelines.
- For lands with more than 10 trees, the applicant must apply online through the NTMS. For application for felling of up to 10 trees, applicants need to upload trees' photos to the NTMS.
- **Divisional forest officers** will monitor how verifying agencies are functioning.
- They will **submit a report** every quarter to the SLC on the performance of these agencies.

Significance of agroforestry:

- ◉ The government has been promoting agroforestry to double farmers' income.
- ◉ Enhance tree cover outside forests
- ◉ Mitigate climate change
- ◉ Reduce timber imports and ensure sustainable land use.

CLOUD SEEDING

Context:

The Delhi Government has decided to postpone its planned cloud seeding trial for artificial rain after receiving scientific recommendations from the India Meteorological Department (IMD) and the Indian Institute of Tropical Meteorology (IITM), Pune. The decision was based on the assessment that prevailing monsoon cloud patterns were not conducive to effective seeding operations, which require specific atmospheric and cloud conditions to yield optimal results.

What is Cloud Seeding?

- ◉ **Cloud seeding** is a **weather modification technique** that involves dispersing substances into clouds to encourage precipitation.

- ◉ Commonly used agents include:
 - Silver iodide (AgI)
 - Potassium iodide (KI)
 - Dry ice (solid CO₂)
- ◉ These substances act as **nuclei for condensation**, enhancing the ability of clouds to produce rain.

Purpose of Cloud Seeding in Delhi

- ◉ Aimed at combating **air pollution** by:
 - Increasing rainfall to **settle particulate matter (PM2.5 and PM10)** in the air.
 - Improving **air quality index (AQI)** in the National Capital Region (NCR).
- ◉ Coordinated by **IIT Kanpur**, involving 13 departments and clearances from the **Directorate General of Civil Aviation (DGCA)**.

Key Institutional Stakeholders

- ◉ **India Meteorological Department (IMD)** – Forecasting cloud structures and precipitation potential.
- ◉ **Indian Institute of Tropical Meteorology (IITM), Pune** – Atmospheric modelling and advisories on seeding viability.
- ◉ **IIT Kanpur** – Scientific execution and cloud microphysics modelling.
- ◉ **DGCA** – Aviation safety clearance for aircraft-based cloud seeding.

Scientific Conditions for Successful Cloud Seeding

- ◉ Cloud seeding is effective **only when pre-existing clouds** have sufficient moisture and vertical development.
- ◉ **Cumulus clouds** with adequate liquid water content are ideal.
- ◉ **Monsoon clouds**, due to high variability and saturated conditions, may not always respond to seeding agents.

MUNNAR AS A RESPONSIBLE DESTINATION

Context:

The Kerala Government has initiated a project to transform Munnar into a Responsible Tourism Destination by the end of this year. The goal is to develop the hill station as a net-zero carbon tourist location by adopting sustainable, gender-inclusive, and plastic-free tourism practices while protecting the region's fragile ecosystem. ₹50 lakh has been sanctioned for the initiative.

What is Responsible Tourism?

- ◉ Responsible Tourism is a tourism model that minimizes negative environmental, social, and economic impacts.

◦ **It aims to:**

- Generate greater economic benefits for local people,
- Enhance the well-being of host communities,
- Improve working conditions and access to the industry,
- Involve local people in decision-making,
- Conserve natural and cultural heritage.

Munnar's Strategic Importance

- **Munnar**, located in Kerala's Idukki district, is a prominent **hill station in the Western Ghats**, a UNESCO World Heritage Biodiversity Hotspot.
- Receives approx. **12 lakh tourists annually** (excluding day-trippers, actual footfall likely 4 times higher).
- The region is ecologically sensitive, with **endemic flora and fauna**, and faces challenges like waste generation, plastic use, and ecosystem degradation.

Key Sustainable Interventions Planned

- **Net-Zero Carbon Tourism:** Minimizing carbon footprint through low-impact travel, eco-friendly accommodations, and sustainable infrastructure.
- **Plastic-Free Initiative:** Elimination of single-use plastics; installation of signage and awareness campaigns.
- **Village Life Experience Packages:** Promoting rural and experiential tourism models.
- **Stakeholder Training:** Training programs for:
 - ◆ Local guides, community leaders, drivers (auto/taxi), and tourism staff.
- **Gender-Inclusive Tourism:** Promoting women participation as hosts, entrepreneurs, and tourists to ensure equitable and safe tourism.

Responsible Tourism in Kerala – Background

- Kerala is a pioneer state in Responsible Tourism Mission (RTM).
- RTM launched in 2017, integrates tourism with local economic development and environmental sustainability.
- Focus areas include local sourcing, employment generation, waste management, and community participation.

Gulf of Mannar:

Geographical Overview

- **Location:** Southeast coast of India (Tamil Nadu) and northwest coast of Sri Lanka.
- **Part of:** Laccadive Sea (of the Indian Ocean).
- **Dimensions:** ~125 miles (200 km) wide and ~100 miles (160 km) long.

◦ **Boundaries:**

- **Northeast:** Rameswaram Island and Adam's Bridge (Rama's Bridge / Ram Setu).
- **Southwest:** Mannar Island (Sri Lanka).

◦ **Rivers Draining into Gulf:**

- *From India:* **Tambraparni River**
- *From Sri Lanka:* **Aruvi River**

◦ **Important Port:** Tuticorin (Thoothukudi) on the Indian coast.

◦ **Marine Resources:** Known for **pearl banks** and **sacred chanks** (*Turbinella pyrum* – a conch used in rituals).

Gulf of Mannar Marine Biosphere Reserve

- **Status and Recognition**
- **India's first Marine Biosphere Reserve** (designated in 1989).
- Also the **first Marine Biosphere Reserve in South and Southeast Asia**.
- Recognized under the **Man and Biosphere Programme (UNESCO)**.
- **Extent**
 - Encompasses a **chain of 21 coral and sand dune islands**, located off the coasts of **Ramanathapuram** and **Thoothukudi (Tuticorin)** districts.
 - Covers **10,500 sq. km**, including marine, coastal, and terrestrial ecosystems.
 - Out of 21 islands, **2 are submerged** due to coastal erosion and sea level rise.

Ecological Richness

- **One of the richest coastal regions** in mainland India in terms of biodiversity.
- **Home to:**
 - Over **3,600 species of flora and fauna**
 - **Coral reefs, seagrass beds, mangroves, mudflats, and sandy beaches**
 - Endangered species like:
 - ◆ **Dugong (sea cow)** – *India's only marine herbivore mammal*
 - ◆ **Green and Olive Ridley Turtles**
 - ◆ **Seahorses**
 - ◆ **Whale sharks**
 - ◆ **Coral Reef Areas in India** (only four major regions):
 - **Gulf of Mannar (Tamil Nadu)**
 - **Gulf of Kutch (Gujarat)**
 - **Lakshadweep Islands**
 - **Andaman & Nicobar Islands**

COMMUNITY FOREST RESOURCE (CFR) MANAGEMENT

Context:

Gram panchayats in over 10 districts of Chhattisgarh are protesting a State Forest Department order suspending all Community Forest Resource (CFR) management activities under the Forest Rights Act, 2006. The move has sparked concerns over infringement of tribal rights and jurisdictional conflict with the Tribal Welfare Department.

Forest Rights Act, 2006 (FRA):

- Recognizes the rights of forest-dwelling Scheduled Tribes and other traditional forest dwellers to forest resources.
- Section 3(1)(i)** provides for the right to protect, regenerate or conserve or manage any community forest resource (CFR).
- Gram Sabha** is the statutory authority for initiating the process of determining rights under FRA.

Community Forest Resource (CFR):

- CFR refers to customary forest areas traditionally used by communities for livelihood and cultural practices.
- Under **Rule 4(1)(e)** of the FRA Rules, 2012, the gram sabha is empowered to manage CFRs and prepare conservation and management plans.

Controversy in Chhattisgarh:

- The Forest Department's order prohibits any CFR-related activity by either government or private entities.
- Protesters argue this order contradicts the FRA, which vests forest management authority in the gram sabha and the Tribal Welfare Department—not the Forest Department.
- Allegations suggest an attempt to centralize control over forests, contrary to community-based governance envisioned by FRA.

Conflict of Administrative Jurisdiction:

- The Tribal Welfare Department is the designated **nodal agency for FRA implementation**.
- The Forest Department's attempt to act as the nodal department has been termed illegal and ultra vires by civil society groups.
- This raises broader questions on the bureaucratic resistance to decentralization and community forest governance.

Constitutional and Legal Backing:

- The **PESA Act, 1996** also strengthens the role of gram sabhas in Scheduled Areas regarding natural resource management.
- Judicial interpretations, including in *Orissa Mining Corporation v. Ministry of Environment & Forests* (2013), reaffirmed the primacy of gram sabha consent in forest matters.

ASSAM, MIZORAM DRAFT RULES TO CURB ILLEGAL IMMIGRATION

Context:

The two northeastern States, Assam and Mizoram, have toughened their stand on identification documents to curb unauthorised cross-border movements of Bangladesh and Myanmar nationals.

Assam's Aadhaar Policy:

- The Assam government to issue Aadhaar cards to adult citizens only through District Commissioners (DCs).
- Aimed at making it difficult for illegal Bangladeshi immigrants to obtain Aadhaar, facilitating their detection and deportation.
- Assam has achieved 100% Aadhaar coverage, prompting stricter measures for new applications.
- Additional Measures:** Since April 2025, individuals not applying for inclusion in the National Register of Citizens (NRC) are barred from obtaining Aadhaar.

Mizoram's Policy on Myanmar Refugees:

- The Mizoram Government plans to retain the identity cards of Myanmar nationals to regulate movement across the border.
- Implementation:**
 - Identity cards to be collected from Myanmar nationals during their stay in Mizoram.
 - Strict action, including seizure of IDs, against those misusing refugee status.
 - Biometric data collection of Myanmar nationals entering Mizoram initiated to enhance monitoring.

GLP-1 DRUGS

Context:

Two GLP-1 (Glucagon-like peptide) drugs, Novo Nordisk's semaglutide and Eli Lilly's tirzepatide, are now available in the Indian market.

More about the news:

- These drugs are extremely effective for weight loss, helping people lose 15% to 20% of their body weight, equivalent to what they would otherwise lose with bariatric surgeries.
- They have also been found to be effective or are being studied for a host of other conditions, including cardiovascular diseases, kidney disease, non-alcoholic fatty liver disease, and obstructive sleep apnoea.
- It has also been reported that people on these drugs end up making significant dietary changes, consuming smaller, healthier meals.

Understanding GLP-1 drugs:

- Both semaglutide and tirzepatide belong to a new class of medicines called GLP-1 (glucagon-like peptide-1) receptor agonists. They are prescribed for the management of type 2 diabetes and obesity.
- These drugs mimic certain naturally-occurring gut hormones called incretins (GLP-1 is one such incretin) produced in the small intestine, and are hence also known as incretin mimicker.

How do these miracle drugs work?

- Improving the secretion of insulin that allows more of the glucose in the bloodstream to enter cells, where it can be used for energy.
- Inhibiting the secretion of the hormone glucagon that stimulates the liver to release stored glucose into the bloodstream.
- Slowing down the emptying of the stomach so that the glucose levels in the bloodstream don't spike.
- Reducing appetite by signalling to the brain that one is satiated.

EPABX SYSTEMS

Context:

Electronic Private Automatic Branch Exchange (EPABX) systems form a core part of institutional telecommunication, enabling automated internal and external call routing. Their evolution from electromechanical to digital and VoIP-based technologies has significantly improved efficiency and integration with modern communication networks

What is EPABX?

- EPABX** stands for **Electronic Private Automatic Branch Exchange**.
- It is a **private telephone switching system** that facilitates internal communication within an organization and interfaces with external phone networks via the **Public Switched Telephone Network (PSTN)**.
- It allows for **call routing, forwarding, voicemail, interactive menus**, and **internal extensions** without requiring a separate physical line for each phone.

Functional Components and Mechanisms:

- Internal Communication:** Call routed via extension numbers using internal switching without accessing the PSTN.
- External Communication:** Requires dialing an access code (commonly '0'), following which EPABX routes the call to a trunk line connected to the PSTN.

Incoming Call Handling:

- Manual routing via a receptionist (in legacy systems).
- Automated Call Routing and IVRS** (in modern systems).

Switching Mechanism:

- Older models used **electromechanical relays and crossbar switches**.
- Newer systems use **digital switching with Pulse Code Modulation (PCM)** and **Time Division Multiplexing (TDM)**.
- Latest systems support **Voice over Internet Protocol (VoIP)** with **IP-based switching**, call recording, voicemail, and real-time routing.

OLDEST ANCIENT EGYPTIAN GENOME DECODED

Context:

Researchers have successfully sequenced the first complete ancient Egyptian genome from a 4,500–4,800-year-old male buried during Egypt's Old Kingdom at Nuwayrat, 265 km south of Cairo. This is the oldest and most complete DNA sample from ancient Egypt, offering new insights into early North African ancestry and interregional genetic exchange.

Genomic Milestone

- This genome marks **the oldest complete human DNA sequence** recovered from Egypt.
- It belongs to a **male aged 44–64 years**, with **brown eyes, brown hair**, and **dark to black skin pigmentation**, as per phenotypic predictions.

Burial Context & Preservation

- The individual was buried in a **large ceramic pot inside a rock-cut tomb**, facilitating **stable temperature conditions** favorable for DNA preservation.
- Teeth root tips** were used to extract DNA — a reliable source due to high preservation potential.

Ancestral Composition & Cultural Linkages

- The genome indicates **78% North African ancestry**, specifically from **Neolithic Moroccan populations**.
- 22% of the DNA links to early Mesopotamian farmers**, indicating **ancient cultural and genetic exchange** possibly via Levantine intermediaries.

AXIOM-4 MISSION

Context:

On June 25, 2025, Axiom-4 mission was launched by SpaceX using the Falcon 9 rocket, carrying four astronauts, including Group Capt. Shubhanshu Shukla from India, aboard the Dragon crew capsule to the International Space Station (ISS). This mission is notable for India's growing human spaceflight participation and highlights advancements in commercial space collaboration.

Mission Overview:

- Mission Name:** Axiom-4 (AX-4)

- **Operator:** Axiom Space (Private company based in the U.S.)
- **Launch Vehicle:** SpaceX Falcon 9
- **Spacecraft:** Crew Dragon (SpaceX)
- **Indian Representative:** Group Capt. Shubhanshu Shukla (Mission Pilot)
- **Launch Site:** NASA's Kennedy Space Center, Florida
- **Destination:** International Space Station (ISS), ~400 km above Earth
- **Docking Time:** ~28 hours post-launch

Orbital Mechanics – Why 28 Hours to Dock:

- The capsule does **not travel straight up** to 400 km; instead, it **enters an elliptical parking orbit** (~200 km).
- **Initial orbit period of Dragon:** ~88 minutes
- **ISS orbit period:** ~92 minutes
- Dragon performs **phasing burns** (thruster firings) to gradually raise its orbit and synchronize with ISS trajectory.
- Docking choreography adheres to **orbital mechanics, safety protocols, and velocity matching.**

Approach and Docking Procedure:

- **Pre-docking Profile:** 18 orbits (~28 hours)
- **Corridor alignment and velocity control:** Capsule slows down from **kilometres/sec** to **centimetres/sec** near the ISS.
- **Holding Points:** 400 m, 220 m, 20 m, and 1 m with go/no-go polls and LIDAR scans.
- **Safety Rule:** Even one sensor error triggers **automated retreat protocol.**
- Conservative docking profile selected to prioritize **fuel availability, crew rest, and system checkouts.**

Relevance for India and Space Exploration:

- Demonstrates **India's growing human spaceflight capability** and training.
- Showcases **private-public collaboration** (NASA, Axiom Space, SpaceX).
- Offers learnings for **ISRO's Gaganyaan mission**, especially in **orbital rendezvous and docking operations.**

QUANTUM VALLEY INITIATIVE

Context:

The Chief Minister of Andhra Pradesh announced the operationalisation of a Quantum Computing Centre in Amaravati by January 1, 2026, with a vision to develop a "Quantum Valley", inspired by the Silicon Valley model. The initiative is supported by IBM, TCS, and L&T, and aims to deliver 100 use cases of Quantum-AI applications by August 15, 2026.

Quantum Computing Centre

- The project will establish **India's first state-led Quantum Computing Valley** in Amaravati.
- To act as a **hub for quantum research, development, and commercialization.**
- Will house both **hardware and software R&D** related to quantum technology.

Technology Collaboration

- **IBM:** Pioneer in quantum processors (e.g., IBM Quantum System One).
- **TCS & L&T:** Expected to provide AI integration, project implementation, and infrastructure.

Quantum-AI Synergy

- Quantum computing leverages **qubits** and **quantum entanglement** to perform computations exponentially faster than classical computers.
- Use cases may include:
 - Drug discovery and genomics
 - Optimization in logistics and finance
 - Climate modeling and cryptography
- Integration with **Artificial Intelligence (AI)** offers high-potential in decision-making systems and machine learning.

Digital Governance via WhatsApp

- The A.P. government aims for **100% delivery of public services through WhatsApp.**
- It reflects a **conversational governance model**, aligned with India's broader push toward **Digital Public Infrastructure (DPI).**

National Policy Linkages

Aligns with:

- **IndiaAI Mission** (2024)
- **National Quantum Mission (2023–2031):** ₹6,000 crore allocation for quantum research.
- **Digital India Programme** and **India Semiconductor Mission.**

IndiaAI Mission (2024)

- ◉ **Objective:** Position India as a global hub for AI innovation, research, and deployment.
- ◉ **Components:** Includes development of computing infrastructure (AI supercomputers), foundational models (Indian LLMs), datasets, AI-specific workforce training, and a governance framework.
- ◉ **Implementing Agency:** Digital India Corporation under MeitY.
 - **Focus Areas:**
 - ◆ Secure and ethical AI deployment
 - ◆ India datasets platform
 - ◆ AI startup financing and ecosystem building

National Quantum Mission (2023–2031)

- ◉ **Objective:** To scale quantum technologies in computing, communication, sensing, and metrology.
- ◉ **Key Targets:**
 - Develop intermediate-scale quantum computers (50–1000 qubits)
 - Quantum communication networks with satellite-based links
 - Indigenous quantum devices and materials
 - ◆ **Nodal Ministry:** Department of Science and Technology (DST)
- ◉ **Significance:** Enables India to compete with U.S., China, EU in quantum research.

Digital India Programme (Launched 2015)

- ◉ **Objective:** Transform India into a digitally empowered society and knowledge economy.
- ◉ **Key Pillars:**
 - Digital infrastructure as a utility to every citizen
 - Governance and services on demand
 - Digital empowerment of citizens
- ◉ **Key Projects:**
 - DigiLocker
 - UMANG
 - e-Hospital, e-Courts
 - National Digital Health Mission
 - **Recent Additions:** Digital Public Infrastructure (DPI) expansion and AI/quantum integration under Phase II.

India Semiconductor Mission (ISemM)

- ◉ **Objective:** Build a robust semiconductor ecosystem including fabs, design, ATMP/OSAT in India.
- ◉ **Scope:**
 - Fabless design ecosystem
 - Attracting global semiconductor manufacturers (e.g., Micron, TSMC)
 - Setting up of Compound Semiconductor Fabs and ATMP facilities
- ◉ **Implementing Agency:** India Semiconductor Mission under MeitY

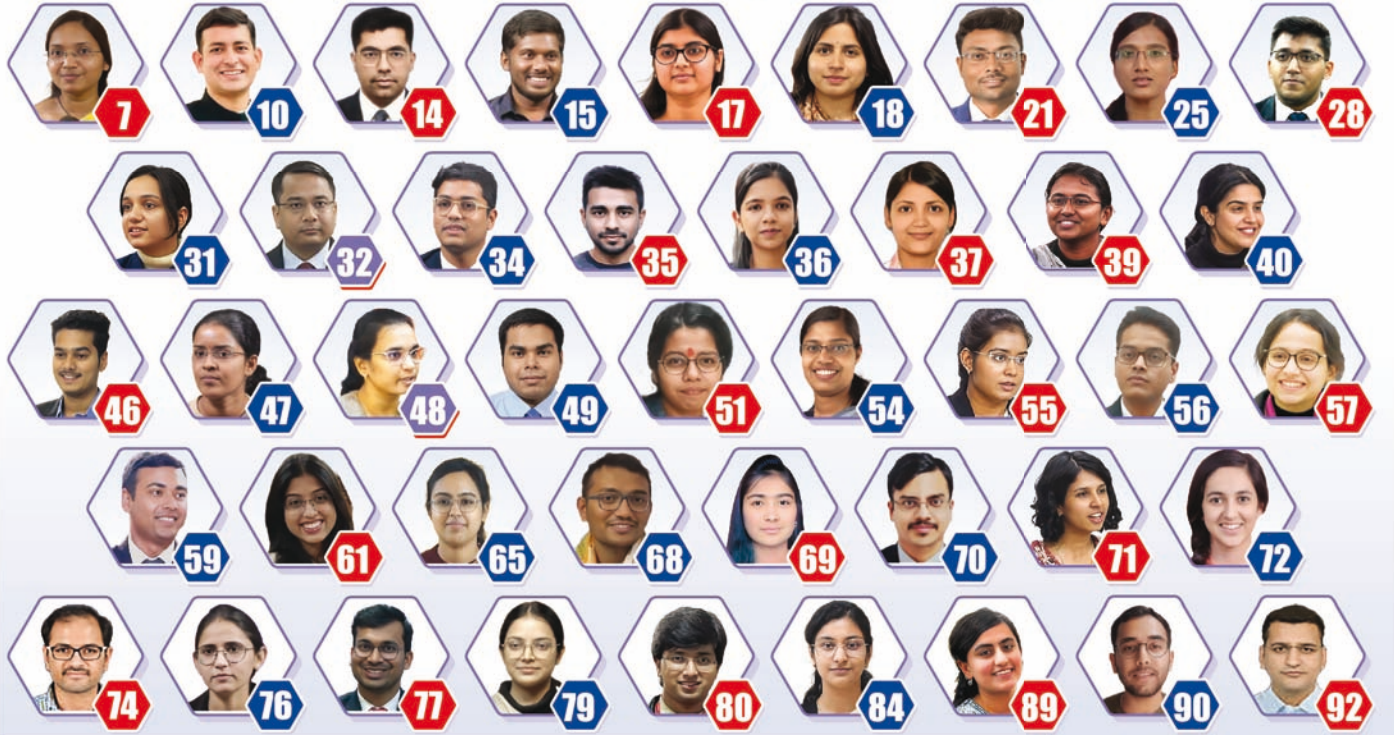


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