

DAILY CURRENT AFFAIRS

By



SOURCES



Date: 17-18 Dec. 2023

Important News Articles

1. School of happiness to take root in Assam - The Hindu
2. Aadhaar-based consent for children to go online - Indian Express
3. Optimistic on trade agreement ahead of elections: Swiss, Norway Ministers - The Hindu
4. Modi flags off Viksit Bharat Sankalp Yatra in 5 States, says focus will be on smaller cities - The Hindu
5. Assam Rifles plans op changes for deployment on LAC, if required - Indian Express
6. CT scans associated with increased risk of blood cancers - The Hindu
7. Global coal demand likely to decline 2.3% by 2026: IEA - The Hindu
8. 'Write-off era over, asset quality review served banking well' - Indian Express

Editorials, Gists and Explainers

1. An uphill struggle to grow the Forest Rights Act - The Hindu
2. The era of CRISPR therapeutics is here - what can we expect? - The Hindu
3. INDIA IN AI AGE - Indian Express

Quick Look

1. Abel Prize
2. Logistics Ease Across Different States (LEADS) Report, 2023
3. Ketamine
4. Surat Diamond Bourse
5. KAPP-3
6. Criticality
7. One Nation One Ration Card

Important News Articles

GS II

1. School of happiness to take root in Assam - The Hindu

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- A first-of-its-kind school for imparting lessons on **humanity and societal happiness** will take root in **Assam's Bodoland Territorial Region (BTR)** at the dawn of 2024.

Prelims Takeaway

- Bodoland

Key Points

- The project would be **initiated after a year of planning by the Bodoland** Territorial Council (BTC), which administers the BTR formed under the Sixth Schedule of the Constitution.
- The BTR areas have had a **history of extremism resulting in ethnic conflicts**, especially between the Bodos and migrant Muslims, and between the Bodos and Adivasis.
- "The objective was to instil in youth and community leaders the **human values for co-existence in a region** and country inhabited by people of diverse faiths, cultures, languages, and ethnicity

Peace volunteers

- The school of happiness had its genesis in a pilot project called **Bodoland Happiness Mission introduced almost a year ago**.
- Each district has one such strategically located centre.
- Some of the 'peace volunteers' said the training helped them **look beyond their community-specific boundaries**.

2. Aadhaar-based consent for children to go online - Indian Express

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- The Union Ministry of Electronics and IT (MeitY) is gearing up to **discuss and implement data protection rules** in accordance with the Digital Personal Data Protection Act

Prelims Takeaway

- Aadhaar

Key Points

- The rules aim to address **key concerns in online services**, particularly regarding age verification for children and notification procedures for data breaches.
- MeitY has scheduled **closed-door consultations with industry stakeholders** on December 19 to discuss and finalize the proposed rules.

Age Verification for Children

- **Objective:** Ensure verifiable parental consent for individuals under 18 accessing online platforms.

Methods Proposed

- **Aadhaar-Based Authentication**
- Parents can add their children's Aadhaar details to the **DigiLocker app**.
- Platforms can authenticate a user's age through a simple yes/no response from the **Aadhaar database without revealing user details**.
- Electronic Token System:
- **Industry-developed consent** managers accept a user's government ID.
- **Tokenizes the ID** into an encrypted format, sharing only age and name parameters with the platform.
- Approval from the government **required for implementation**.

Exemptions from Parental Consent and Age Gating

- Certain entities, such as **healthcare and educational institutions, may be exempted**.

- **Limited exemptions based on specific purposes**, e.g., a transport company processing a child's data for offering transport services.

Data Breach Notification Measures

- Two-stage notification process proposed for entities **in case of a data breach**.
- **Penalties under the Data Protection Act** may reach up to Rs 250 crore for insufficient safeguards against data breaches.

Government Institutions and Personal Data Usage

- Proposal to mandate government institutions to issue notices to citizens when using their **personal data for welfare services, subsidies, or similar activities**.

3. Optimistic on trade agreement ahead of elections: Swiss, Norway Ministers - The Hindu

Relevance: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

News:

- Trade Ministers of Switzerland and Norway express uncertainty about the conclusion timeline for **India's Trade and Economic Partnership Agreement (TEPA) with the European Free Trade Association (EFTA)**

Prelims Takeaway

- European Free Trade Association

Key Points

- It comprises Iceland, **Liechtenstein, Norway, and Switzerland**.
- The ministers hope to **resolve differences in the coming months** before India's election process begins.
- **Intellectual Property Rights (IPRs), patents, and copyrights** are crucial concerns, labeled a "bread and butter" issue by the EFTA ministers.

Complexities and Priorities

- **Negotiations started 15 years ago** and are part of various simultaneous trade partnership agreements, posing challenges ahead of India's election slowdown.
- **EFTA negotiations may be affected**, but priorities are up to the Indian side.
- **EFTA countries, not part of the EU**, have completed 30 FTAs and are concurrently negotiating with other regions.

Optimism and Progress

- **Both sides acknowledge the need to expedite TEPA** talks, with frequent visits indicating commitment.
- **Timeline pushed back due to new trade lines** and continuing IPR concerns.
- **Mutual benefits stressed**, highlighting India's significant market size.
- **EFTA nations, ranked eighth** globally in merchandise trade, generate over 2,00,000 jobs in India.
- **Norway looks to engage with India** on critical mineral mining, vital for India's renewable energy plans.

4. Modi flags off Viksit Bharat Sankalp Yatra in 5 States, says focus will be on smaller cities - The Hindu

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- **Prime Minister underscores the crucial role of hundreds of small cities** in the development of India, highlighting their significance in the nation's progress.

Prelims Takeaway

- PM Suraksha Bima Yojana

Focus on Tier-2 and Tier-3 Cities

- Development historically limited to major cities; emphasis now on **tier-2 and tier-3 cities**.
- **AMRUT Mission and Smart City Mission** contribute to upgrading basic facilities, impacting ease of living and doing business.

Viksit Bharat Sankalp Yatra (VBSY) Campaign

- Interaction with **VBSY beneficiaries via video conferencing**.
- PM flags off VBSY campaign in **Rajasthan, Madhya Pradesh, Chhattisgarh, Telangana, and Mizoram**.
- **Urges newly elected governments** in these states to expand the VBSY initiative rapidly.
- **Highlight of government support during the pandemic**, including financial assistance, free COVID-19 vaccines, and free rations for poor families.
- Assistance worth **lakhs of crores to small businesses**.

Financial Inclusion and Social Security Initiatives

- **Street vendors and hawkers connected** to the banking system.
- Over 50 lakh people benefit from **loans under SVANidhi Yojana**.
- Focus on social security for urban dwellers, with schemes like **Atal Pension Scheme, PM Suraksha Bima Yojana, and Jeevan Jyoti Yojana**.
- Significant progress in modern public transport, with **15 new cities receiving metro services in the past decade**.
- **Acknowledgment of progress** in various sectors contributing to urban and overall development.

5. Assam Rifles plans op changes for deployment on LAC, if required - Indian Express

Relevance: Security challenges and their management in border areas – linkages of organised crime with terrorism.

News:

- The Assam Rifles is **strategizing operational changes** to perform conventional roles along the Line of Actual Control (LAC)
- This in addition to its **traditional counter-insurgency** duties in the Northeast and guarding the India-Myanmar border.

Prelims Takeaway

- Assam Rifles

Key Points

Operational Shift Discussed

- Aims to deploy more than **70% of Assam Rifles soldiers along the LAC in contingencies**.

Assam Rifles Overview

- **Comprises 46 battalions** with a sanctioned strength of over 65,000 troops.
- 20 battalions involved in guarding the **India-Myanmar border**.
- 26 battalions engaged in counter-insurgency roles, **including two in Jammu and Kashmir**.

Focus on LAC and China

- Reflects **India's growing focus on China** and securing the LAC.
- Various measures taken over the past three years to increase vigilance and **strengthen deployment along the LAC**.

Preparations for Conventional War-Fighting

- **Plans to equip Assam Rifles with additional weaponry**, communication equipment, and military vehicles.
- **Procurement includes 81 mm mortars, medium grenade launchers**, night vision goggles, handheld thermal imagers, and ammunition.
- **Soldiers trained regularly with the Army** in various activities, emphasising mine laying and offensive roles.

Technology Intensive Approach

- Plans to make the **force more technology-intensive** over the next few months.
- Focus on **procuring weapons and equipment** in line with the larger focus on China.

Strategic Significance of Northeast

- Director General of Assam Rifles highlights the strategic significance of the **Northeast in India's engagement with Southeast Asia** and the broader Indo-Pacific region.
- Proximity to **China and its role in India's Act East Policy** emphasised.

Historical Involvement and Recent Contributions

- Assam Rifles troops participated in the 1962 war and fought the Chinese in Arunachal Pradesh.
- Contribution during the Galwan valley clashes in 2020, supporting the Army along the LAC in Arunachal Pradesh and Sikkim.

6. CT scans associated with increased risk of blood cancers - The Hindu

Relevance: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

News:

Prelims Takeaway

- CT Scans
- Blood Cancer

Even low dose radiation can cause cancer

Children, adolescents and young adults are vulnerable to blood cancer caused by low dose radiation

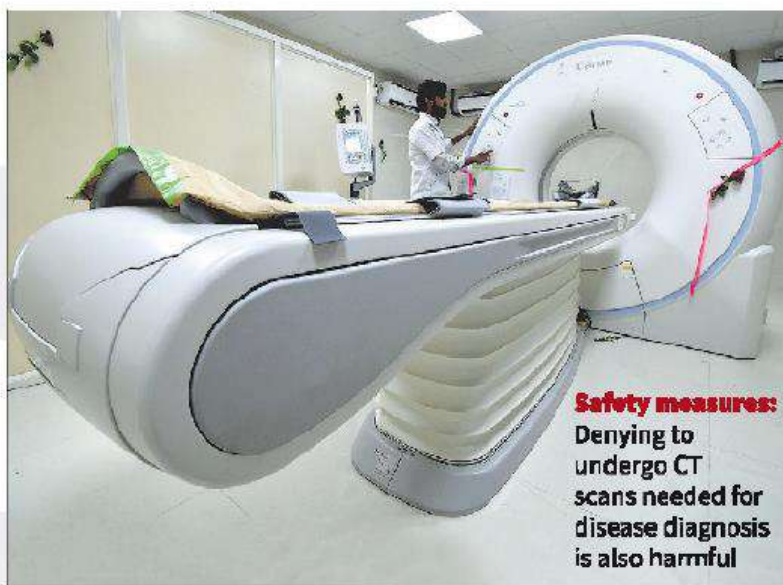
■ Radiation doses at moderate (over 100mGy) to high (over 1 Gy) values are known to cause blood cancers in both children and adults

■ A recent study suggests that even low doses (less than 100 mGy) of radiation have a small probability to cause blood cancer

■ Nearly 9.5 lakh individuals who underwent CT examinations before age 22 years in 276 hospitals in nine European countries were followed up

■ 51% of the cases were younger than 20 years at diagnosis, whereas 88.5% were younger than 30 years

■ A clear association was found between cumulative dose and risk of blood cancer



Safety measures:
Denying to undergo CT scans needed for disease diagnosis is also harmful

■ For every 10,000 children undergoing CT examination, one-two children are expected to develop blood cancer in about 12 years

■ The study highlights the need for continued justification of paediatric CT examinations and optimisation of doses

GS III

7. Global coal demand likely to decline 2.3% by 2026: IEA - The Hindu

Relevance: Conservation, environmental pollution and degradation

News:

- According to a report by the **International Energy Agency (IEA)**, the **global coal demand is expected to decline by 2026**.
- This is despite the **global coal production reaching an all-time high** in the current year.

Factors Influencing Decline

- The **shift towards renewables** contributes to the expected decline.
- China and India play crucial roles, with **India being a "driving force" until 2026**.
- The IEA's expectations of a decline in coal demand is also premised **on a change in global climate**.

Prelims Takeaway

- International Energy Agency (IEA)
- Paris Agreement
- UNFCCC

- The current El Nino conditions are expected to turn to **La Nina** and generally linked to **better rainfall during 2024-2026**.
- This will presumably translate to **greater hydropower output**.

Regional Variances in 2023

- **Global coal demand to rise by 1.4% in 2023**, exceeding 8.5 billion tonnes.
 - It will surpass 8.5 billion tonnes for the first time.
- EU and US demands are **expected to drop 20%**.
- However, **India and China see increases (8% and 5% respectively)** due to electricity demand and diminished electrical generation from hydropower.

Renewable Energy Impact

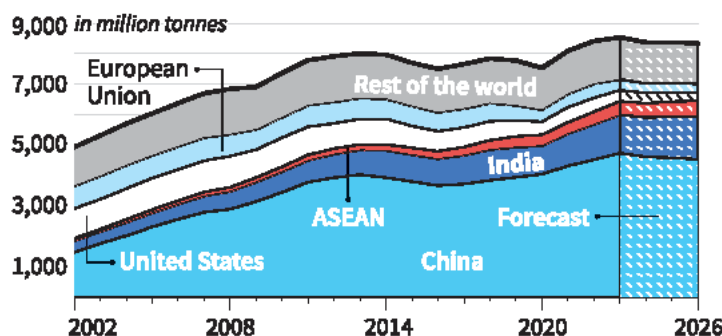
- An anticipated **increase in low-cost solar photovoltaic deployment** is expected to aid renewable power generation.
- Also, the **nuclear generation is expected to see moderate increases** in China, India, and the EU.
- **Coal-fired generation** is likely to be pushed into a **downward trajectory from 2024**.

China's Role

- China currently accounts for **over half of the world's coal demand**.
- **Major expansion of renewable energy in China** is expected to lead to a fall in coal demand from 2024, plateauing in 2026.
- Overall, this will result in a **2.3% fall in global coal demand by 2026**.

Coal consumption

Global coal consumption is expected to remain over 8 billion tonnes through 2026. The chart shows the appetite for the fuel



Environmental Impact

- Coal is the most important **energy source for electricity generation, steel-making, and cement production**.
- However, it is also the **largest source of carbon dioxide (CO₂) emissions** from human activity.
- Despite forecasts of decline, **global consumption is expected to remain above 8 billion tonnes through 2026**.

Climate Policy Agreements

- **Reduction of unabated coal use is a key agreement** among countries under the United Nations Framework Convention on Climate Change.
- To limit temperature rise to 1.5°C by 2050, **coal emissions must decline by nearly 95% between 2020-2050**.

Global Production Trends

- **China, India, and Indonesia, the top coal producers**, are expected to break output records in 2023.
- These three countries now account for **more than 70% of the world's coal production**.

8. 'Write-off era over, asset quality review served banking well' - Indian Express

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

- Recently, the Chairman of SBI stated that the **era of loan write-offs is over.**
- **Asset Quality Review (AQR)** initiated in 2015 under the former RBI Governor Raghuram Rajan has been **beneficial for the banking system.**

Prelims Takeaway

- Asset Quality Review (AQR)
- Reserve Bank of India

Impact of AQR and Improved Lending

- The AQR led to the **identification of a substantial amount of bad loans.**
- **Over Rs 10 lakh crore of bad loans were written off** by Indian banks in the past five years.
- Gross non-performing assets (NPAs) **have decreased by almost 46%** in the last five years.
- **Lending by banks has become more informed and improved** after the AQR, **strengthening risk management and underwriting practices.**

Initially Faced Criticism

- The AQR had **initially come under criticism** by some economists in the government.
- They argued that AQR **slowed down economic growth** and **underestimated the extent of bad loans.**

Positive Signs in the Indian Economy

- He said that the **Indian economy is in a "golden phase."**
- The **agriculture sector showed increased economic activity** in the second half.
- **Positive trends** are also seen in the Fast-Moving Consumer Goods (FMCG) sector and **across various industries.**

Global Economic Comparison

- He also highlighted that the **Indian economy is performing well globally.**
- **A significant portion of our GDP is our domestic economy.**
- He also emphasised the **challenges in international markets** which are **impacting India's international trade.**



Mentorship
India

Editorials, Gists and Explainers

1. An uphill struggle to grow the Forest Rights Act - The Hindu

Relevance: Conservation, environmental pollution and degradation

Context:

- The **Forest Rights Act (FRA)**, enacted in 2006, marks a **watershed in India's socio-environmental legislation**.
- It aimed to **rectify historical injustices imposed on forest-dwelling communities** during the colonial era.
- Simultaneously, it seeks to **create a much more democratic, bottom-up forest governance**.
- However, **its implementation has been hindered** by political opportunism, resistance from forest officials, bureaucratic apathy and misinformation.

Historical Injustices	Forest Rights Act, 2006
<ul style="list-style-type: none"> • Prior to colonialism, local communities enjoyed customary rights over forests in their vicinity or even a large region. • The colonial Indian Forest Act of 1878 disrupted traditional rights of local communities over forests, leading to significant injustices. <ul style="list-style-type: none"> ◦ Shifting cultivation was banned ◦ Forest villages were created with compulsory labour ◦ Access to forest produce became limited and controlled by the state. • Post-independence, forest areas were declared state property without proper inquiry. • This led to displacement of legitimate residents who were then labelled as 'encroachers.' • The Wildlife (Protection) Act of 1972 and the Forest (Conservation) Act of 1980 further exacerbated injustices. • They forcibly resettled communities for conservation projects and development initiatives without their consent. 	<ul style="list-style-type: none"> • The FRA acknowledged historical injustices and sought redress through three key measures. • Recognition of Individual Forest Rights (IFRs) to continue habitation and cultivation existing before December 2005. • Conversion of forest villages into revenue villages after full rights recognition. • Recognition of Community Forest Rights (CFRs) promoting decentralized forest governance <ul style="list-style-type: none"> ◦ To access, use, own, sell minor forest produce ◦ To manage forests within customary boundaries • Finally, it lays down a democratic procedure for identifying whether and where wildlife conservation may require curtailing or extinguishing community rights.
<p>Challenges in Implementation</p> <ul style="list-style-type: none"> • The focus on individual rights by states, resistance from forest officials, and flawed digital processes have hampered the effective recognition of IFRs. • The biggest lacuna in FRA implementation is the extremely slow and incomplete recognition of community rights. • This hinders the realization of community-led forest conservation and sustainable livelihoods. • Some states like Maharashtra, Odisha and Chhattisgarh have made progress in CFR recognition. • However, the non-recognition of community rights remains convenient for conservationists and the development lobby. <p style="text-align: center;">Ongoing Struggles and Unfulfilled Potential</p> <ul style="list-style-type: none"> • Calls to shut down FRA implementation and saturating' rights recognition in mission mode have emerged. • However, mission mode implementation leads to distorted rights recognition and reinstatement of technocratic control. 	

Conclusion

- The political leaders, bureaucrats, and environmentalists need to **appreciate the FRA's spirit and intent**.
- This is to **address historical injustices, democratize forest governance, and unlock the potential for community-led forest conservation and sustainable livelihoods**.

2. The era of CRISPR therapeutics is here - what can we expect? - The Hindu

Relevance: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

Context:

- The recent **regulatory approvals for CRISPR-based therapies** mark a transformative era in medicine.
- CRISPR-based therapies were approved for **sickle-cell disease and β -thalassemia in the UK and the US**.

<p>Evolution of CRISPR Technology: A Timeline</p> <ul style="list-style-type: none"> The discovery of the CRISPR system spanned three decades, evolving from academic pursuit to a programmable "molecular scissor" for DNA editing. 1993 <ul style="list-style-type: none"> Spanish researchers discover Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) in archaea. These elements contain pieces of genetic material derived from viruses that infect bacteria and a set of proteins called Cas, or CRISPR-associated. 2005 <ul style="list-style-type: none"> Researchers tried to explain the CRISPR elements' impact on antiviral immunity. However, later found that CRISPR + Cas proteins could detect and prevent viral infections. This system allows bacteria to detect and prevent viral infections, enabling them to 'acquire' resistance. 2010 <ul style="list-style-type: none"> Scientists demonstrate that CRISPR, in conjunction with Cas9 proteins, can cut double-stranded DNA at specific points. RNA molecules guiding Cas9 proteins to specific positions on the genome were also identified. 2012 <ul style="list-style-type: none"> Researchers develop a method to create synthetic RNA that binds to Cas9, guiding it to specific points on DNA for editing. The breakthrough work of Emmanuelle Charpentier and Jennifer Doudna in 2012 establishes CRISPR-Cas9 as a programmable tool for precise DNA editing. 2020 <ul style="list-style-type: none"> CRISPR-Cas9, developed by Emmanuelle Charpentier and Jennifer Doudna, received the 2020 Nobel Prize in chemistry. They were awarded for their groundbreaking contributions to the development of CRISPR-Cas9. CRISPR technologies continue to evolve, with advancements like base editing, prime editing, and epigenetic modifications. 	<p>CRISPR in Medicine</p> <ul style="list-style-type: none"> CRISPR-Cas9 innovation paved the way for various applications, from targeted genetic therapies to agricultural advancements. In November, the UK and US approved CRISPR-based therapy, Casgevy, for sickle-cell disease and β-thalassemia treatment. Casgevy involves modifying a patient's blood stem cells to eliminate genetic defects causing disorders. The approvals represent a shift from treating symptoms to fixing the molecular basis of diseases. <p>Emerging CRISPR Technologies</p> <ul style="list-style-type: none"> These approvals for CRISPR-based therapeutics are all based on first-generation technologies that have grown to become more efficacious as well as efficient. One fascinating approach is called base-editing, where scientists edit genomes at the resolution of a single nucleotide. Prime Editing: Researchers use a search-and-replace strategy to directly write or insert specific sequences into an existing genome with high accuracy. Another example is of systems that use CRISPR to modify epigenetic effects (effects of a body's environment on its genes) in targeted fashion. <p>Several Challenges</p> <ul style="list-style-type: none"> Safety and accuracy issues, including off-target events, remain challenges. The potential risks need to be balanced with short- and long-term benefits. Ongoing scrutiny and surveillance are required as therapies are in early development cycles.
---	---

Conclusion

- CRISPR technologies **open new possibilities in precision medicine and genetic engineering**, offering hope for patients with genetic disorders.
- While challenges exist, the **potential for precision medicine and transformative impacts on healthcare are remarkable.**

3. INDIA IN AI AGE - Indian Express

Relevance: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

Context:

- The recent surge in AI regulation discussions necessitates a **focus on downstream challenges** - the urgent need for regulatory skill-building in the digital age.
- As **AI adoption grows across sectors** like banking, telecommunications and insurance, the **need to enhance regulatory capabilities becomes paramount.**

<p>Scope and Rapid Advancements</p> <ul style="list-style-type: none"> Generative AI products demonstrate vast applications and rapid service quality improvement. This indicates a strong potential for widespread adoption across the economy. The Economist Intelligence Unit highlights AI utilisation in banking, credit card companies, risk assessment, fraud detection, digital marketing, e-commerce, and the insurance industry. The transformative impact of AI prompts regulatory bodies to prepare for paradigm shifts in professional practices and norms. <p>Transformations in Professions</p> <ul style="list-style-type: none"> AI's integration into bookkeeping, accounting, legal practices, and other professions may reshape traditional roles. The RBI and SEBI have initiated AI tools for regulatory supervision, recognizing the need to adapt to transformative changes. 	<p>Regulatory Frameworks and Skill-building</p> <ul style="list-style-type: none"> Several countries have implemented initial regulatory frameworks for AI. However, the regulatory agencies face the challenge of building the necessary capabilities for the effective implementation. Hiring external firms and experts, as seen with the RBI contracting McKinsey and Accenture, is a step forward. However, agencies must develop the ability to evaluate the external inputs. <p>Algorithmic Auditing</p> <ul style="list-style-type: none"> Some regulators globally have begun exploring the concept of Algorithmic auditing. It is the audit of each part of a model's life cycle to gain a better understanding of how the model works, and whether its use leads to potentially problematic outcomes. However, it requires the regulators to understand and implement these practices.
<p>Building Regulatory Capabilities</p> <ul style="list-style-type: none"> The necessity for effective regulation is emphasised, as private sector incentives alone may be inadequate. The central question is not whether capabilities should be developed but how to achieve this at the current scale and with speed. Relying solely on outside expertise is seen as a short-term strategy, and a systemic approach to building capabilities is crucial. The central government must take a lead in understanding and replicating the transition to a digital state. 	

Quick Look

1. Abel Prize

- Recently, Infosys founder said it was time to ponder why no Indian resident has ever won an Abel Prize for mathematics.
- The Abel Prize is a prize awarded annually by the King of Norway to one or more outstanding mathematicians.
- It is named after Norwegian mathematician Niels Henrik Abel (1802–1829) and directly modelled after the Nobel Prizes.
- It comes with a monetary award of 7.5 million Norwegian kroner (NOK).
- The laureates are selected by the Abel Committee, the members of which are appointed by the Norwegian Academy of Science and Letters.
- Srinivasa Varadhan, an Indian-American citizen won the Abel Prize in the year 2007 for his valuable contribution in “probability theory and in particular for creating a unified theory of large deviation”.

2. Logistics Ease Across Different States (LEADS) Report, 2023

- Recently, the “Logistics Ease Across Different States (LEADS) 2023” Report was released.
- LEADS is an indigenous data-driven index to assess logistics infrastructure, services and human resources across all 36 states and union territories.
- Launched in 2018, it was conceived on the lines of the Logistics Performance Index (LPI) of World Bank in 2018 and has evolved over time.
 - The LPI relies entirely on perception-based surveys.
 - LEADS incorporates both perception as well as objectivity thereby enhancing robustness and comprehensiveness.
- LEADS gives insights to States and UTs for further revolutionary reform in the logistics sector, taking us towards our vision of Viksit Bharat.
- The report serves as a guide for stakeholders in the Logistics Sector by providing strategic insights.
- Achievers: Andhra Pradesh, Gujarat, Karnataka, Tamil Nadu
- 23 States/UTs have already notified their State Logistics Polices to align with the National Logistics Policy.
- Digital reforms such as PM GatiShakti, Logistics Data Bank, Unified Logistics Interface Platform (ULIP), GST are propelling India’s improved ranking at global level.
- According to a report of the economic think tank NCAER, India's logistics cost is estimated in the range of 7.8% to 8.9%.

3. Ketamine

- Recently, the autopsy report for Matthew Perry, stated that the actor's cause of death was the "acute effects of ketamine"
- Ketamine, also known as Ketalar, is a medicine that doctors use to make people not feel pain during surgeries.
- It is derived from Phencyclidine (PCP), a hallucinogenic drug.
- It works by blocking the NMDA receptor in the brain and spinal cord, and increases the release of a neurotransmitter called glutamate.
- It is a dissociative anesthetic with psychedelic properties, used under strict medical supervision for anaesthesia and to treat depression, anxiety, PTSD, end-of-life distress, chronic pain, drug/alcohol problems, etc.
- Ketamine induces hallucinations, distorts sight and sound perceptions, leading to a sense of disconnection and loss of control, can lead to unconsciousness and memory loss.
- It is a Schedule X drug in India, which means it is tightly controlled and even monitored on a case-specific basis by the prescribing doctor.

4. Surat Diamond Bourse

- The Prime minister is set to inaugurate the world's largest corporate office hub, Surat Diamond Bourse.
- Surat Diamond Bourse is located in Khajod village, near Surat.
- It will also be a global centre for trading both rough and polished diamonds as well as jewellery.
- It is the world's largest interconnected building, as it houses over 4,500 interconnected offices.
- Diamond buyers from all corners of the world will get a global platform to trade at the Surat Diamond Bourse.
- The bourse will comprise a state-of-the-art 'Customs Clearance House' for Import-Export, a jewellery mall for retail jewellery business, and a facility for International Banking and Safe Vaults.
 - It is India's largest customs clearance house.
- Despite its mega size, the bourse minimises its environmental impact by adhering to the principles of Panchtattva, aligning with the five elements of nature.
- The Indian Green Building Council (IGBC) has awarded the building a platinum rating.

5. KAPP-3

- KAPP-3 is the country's first 700 MWe (megawatt electric) unit, and the biggest indigenously developed variant of the Pressurised Heavy Water Reactor (PHWR).
- Until now, the biggest reactor size of indigenous design was the 540 MWe, two of which have been deployed in Tarapur, Maharashtra.
- A PHWR is a nuclear power reactor, commonly using unenriched natural uranium as its fuel
 - That uses heavy water (deuterium oxide D₂O) as its coolant and moderator.
- PHWR technology was started in India in the late 1960s with the construction of the first 220 MWe reactor, Rajasthan Atomic Power Station (RAPS-1).
- State-owned Nuclear Power Corporation of India Ltd (NPCIL) had awarded the reactor-building contract for both KAPP-3 and 4 in 2010.

6. Criticality

- Criticality is the first step towards power production.
- A nuclear reactor is said to be critical when the nuclear fuel inside a reactor sustains a fission chain reaction.
- Each fission reaction releases a sufficient number of neutrons to sustain a series of reactions.
- Heat is produced in the event, which is used to generate steam that spins a turbine to create electricity.
- Fission is a process in which the nucleus of an atom splits into two or more smaller nuclei, and some byproducts.
- When the nucleus splits, the kinetic energy of the fission fragments (primary nuclei) is transferred to other atoms in the fuel as heat energy
 - Which is eventually used to produce steam to drive the turbines.

7. One Nation One Ration Card

- The ONORC scheme is being implemented under the National Food Security Act (NFSA).
- This system allows all NFSA beneficiaries, particularly migrant beneficiaries, to claim either full or part foodgrains from any Fair Price Shop (FPS) in the country
- It is through existing ration cards with biometric/Aadhaar authentication in a seamless manner.
- The system also allows their family members back home, if any, to claim the balance of foodgrains on the same ration card.
- The implementation of ONORC was initiated in August 2019.

Prelims Track Question

Q1. Consider the following statements regarding the state of Assam in India:

1. Assam is located in the northeastern part of India and shares international borders with Bangladesh and Bhutan.
2. The Brahmaputra River flows through Assam, playing a significant role in the state's geography and culture.
3. Assam is a major producer of tea, known for its robust and flavorful Assam tea.

How many of the statements given above is/are correct?

- A. Only one
- B. Only two
- C. All three
- D. None

Q2. Consider the following statements regarding the DigiLocker app in India:

1. It is a government-backed digital platform that enables citizens to store, access, and share their digital documents.
2. Users can link their DigiLocker accounts to their Aadhaar, providing a secure and Aadhaar-based authentication for document access.
3. It is primarily designed for the storage of academic certificates and does not support the storage of other official documents.

How many of the statements given above is/are correct?

- A. Only one
- B. Only two
- C. All three
- D. None

Q3. Consider the following statements regarding the European Free Trade Association (EFTA):

1. EFTA consists of member countries that are part of the European Union (EU) and are primarily focused on economic cooperation within the EU.
2. EFTA was founded by European countries that did not join the EU, seeking to establish a free trade area among themselves.

3. Switzerland, Liechtenstein, Norway, and Iceland are current member states of EFTA

How many of the statements given above is/are correct?

- A. Only one
- B. Only two
- C. All three
- D. None

Q4. Consider the following statements regarding the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) in India:

1. AMRUT aims to provide basic infrastructure and services in urban areas with a focus on water supply, sewerage, urban transport, and green spaces.
2. The implementation of AMRUT is the responsibility of the Ministry of Housing and Urban Affairs and it is entirely funded by the central government.
3. Under AMRUT, cities are selected based on a competitive process, and preference is given to those with a higher population and economic potential

How many of the statements given above is/are correct?

- A. Only one
- B. Only two
- C. All three
- D. None

Q5. Consider the following statements regarding India's Act East Policy:

1. It is primarily emphasises strengthening ties with countries in East Asia and Southeast Asia.
2. The Policy is an extension of India's Look East Policy, initiated in the early 1990s, with a subsequent shift in focus and approach.
3. The Policy aims to enhance economic cooperation, cultural exchanges, and strategic partnerships to promote India's interests in the Asia-Pacific region.

How many of the statements given above is/are correct?

- A. Only one
- B. Only two
- C. All three
- D. None

Q6. Consider the following statements regarding the International Energy Agency (IEA).

1. It works with governments and industry to shape a secure and sustainable energy future for all.
2. A candidate country to the IEA must be a member country of the Organisation for Economic Co-operation and Development (OECD).
3. The World Energy Outlook is a report published by the IEA.

How many of the statements given above is/are correct?

- A. Only one
- B. Only two
- C. All three
- D. None

Q7. Consider the following statements

1. Non-Performing Assets (NPAs) are financial assets of a bank for which the principal or interest payment remained overdue for a period of 90 days.
2. Asset Quality Review (AQR) is a process to assess the accuracy of banks' asset classification and if banks have made necessary reserves.

Which of the statements given above is/are incorrect?

- A. Only 1
- B. Only 2
- C. Both 1 and 2
- D. Neither 1 nor 2

Q8. Consider the following statements regarding the Forest Rights Act, 2006

1. It recognizes and vests the forest rights and occupation in Forest land in forest Dwelling Scheduled Tribes (FDST) and Other Traditional Forest Dwellers (OTFD).
2. It recognises three types of rights viz. Title rights, Use rights and Forest management rights.
3. The State Forest Department determines the nature and extent of individual or community forest rights or both.

How many of the statements given above is/are correct?

- A. Only one
- B. Only two
- C. All three
- D. None

Q9. The term "Casgev" and "Lyfgenia" seen in the news recently are

- A. CRISPR-based therapies
- B. Humanoids
- C. Quantum Computers
- D. GM Crop Variants

Q10. The term Algorithmic Auditing seen in the news recently is

- A. A process of reviewing and evaluating algorithms to ensure compliance with copyright laws.
- B. A process to develop new algorithms for diverse applications after several audits.
- C. A legal process for challenging the ethical implications of algorithms in court.
- D. An assessment of each part of a model's life cycle to verify their performance and outcomes.

Prelims Track Answer

Ans. 1 Option C is correct

Explanation

- Assam is indeed located in the northeastern part of India and shares international borders with Bangladesh and Bhutan. **Hence, statement 1 is correct**
- The Brahmaputra River does flow through Assam, and it is a major geographical feature that significantly influences the state's landscape and culture. **Hence, statement 2 is correct**
- Assam is renowned for being a major producer of tea, particularly the robust and flavorful Assam tea. The tea industry is a significant contributor to the state's economy. **Hence, statement 3 is correct**

Ans. 2 Option B is correct

Explanation

- DigiLocker is indeed a government-backed digital platform that facilitates the secure storage and easy access of digital documents for citizens. **Hence, statement 1 is correct.**
- Users can link their DigiLocker accounts to their Aadhaar, providing an additional layer of security and an Aadhaar-based authentication mechanism for accessing documents. **Hence, statement 2 is correct.**
- DigiLocker is not exclusively designed for academic document storage. While it is commonly used for storing academic certificates, it also supports various other official documents issued by government agencies. **Hence, statement 3 is incorrect.**

Ans. 3 Option B is correct

Explanation

- EFTA consists of countries that are not part of the EU. While EFTA member countries aim for economic cooperation, they are independent of the EU. **Hence, statement 1 is incorrect.**
- EFTA was indeed founded by European countries that opted not to join the EU. It was established in 1960 as an alternative trading bloc. **Hence, statement 2 is correct.**
- As of my knowledge cutoff in January 2022, Switzerland, Liechtenstein, Norway, and Iceland are indeed current member states of EFTA. These countries are part of EFTA but not the EU. **Hence, statement 3 is correct.**

Ans. 4 Option C is correct

Explanation

- The primary objective of AMRUT is to provide basic infrastructure and services in urban areas. The focus areas include water supply, sewerage, urban transport, and development of green spaces and parks to enhance the quality of urban life. **Hence, statement 1 is correct.**
- The implementation of AMRUT falls under the Ministry of Housing and Urban Affairs. Additionally, while the central government provides significant funding, the scheme follows a sharing pattern between the central government, state government, and urban local bodies. **Hence, statement 2 is correct.**
- Cities under AMRUT are selected through a competitive process based on specific criteria, including their population, economic potential, and the need for basic infrastructure services. Preference is given to cities that demonstrate a commitment to implementing the reforms outlined in the mission. **Hence, statement 3 is correct.**

Ans. 5 Option C is correct

Explanation

- The Act East Policy primarily aims to strengthen economic, diplomatic, and strategic ties with countries in East Asia and Southeast Asia. It reflects a deliberate shift from a passive "Look East" approach to an active and engaged "Act East" stance. **Hence, statement 1 is correct.**
- The Act East Policy is indeed an extension of the Look East Policy, which was introduced in the early 1990s. Over time, there has been a shift in focus and a more proactive approach, aligning with the evolving geopolitical landscape and India's growing interests in the Asia-Pacific region. **Hence, statement 2 is correct.**
- The Act East Policy has multifaceted objectives, including enhancing economic cooperation, promoting cultural exchanges, and forging strategic partnerships. It seeks to leverage India's strengths for mutual benefit and to play a more active role in regional affairs. **Hence, statement 3 is correct.**

Ans. 6 Option C is correct**Explanation**

- The International Energy Agency is an autonomous inter-governmental organisation within the OECD framework.
- It works with governments and industry to shape a secure and sustainable energy future for all. **Hence, statement 1 is correct.**
- It was created in 1974 in response to the 1973-1974 oil crisis.
- A candidate country to the IEA must be a member country of the Organisation for Economic Co-operation and Development (OECD). **Hence, statement 2 is correct.**
- India joined this organization in 2017 as an Associate member.
- Reports published by IEA: World Energy Outlook, World Energy Balances, Energy Technology Perspectives, World Energy Statistics and Net Zero by 2050. **Hence, statement 3 is correct.**

Ans. 7 Option D is correct**Explanation**

- A non performing asset (NPA) is a loan or advance for which the principal or interest payment remained overdue for a period of 90 days. **Hence, statement 1 is correct.**
- Banks are required to classify NPAs further into Substandard, Doubtful and Loss assets. 1.
- Asset Quality Review (AQR) initiated in 2015 under the former RBI Governor Raghuram Rajan has been beneficial for the banking system.
- It is an exercise conducted by the Reserve Bank of India (RBI) to assess the actual level of bad loans in the industry.
- It is a process to assess the accuracy of banks' asset classification and if banks have made necessary reserves. **Hence, statement 2 is correct.**
- The AQR led to the identification of a substantial amount of bad loans.
- Over Rs 10 lakh crore of bad loans were written off by Indian banks in the past five years.

Ans. 8 Option A is correct**Explanation**

- Forest Rights Act, 2006 recognizes and vests the forest rights and occupation in Forest land in forest Dwelling Scheduled Tribes (FDST) and Other Traditional Forest Dwellers (OTFD) who have been residing in such forests for generations. **Hence, statement 1 is correct.**
- It strengthens the conservation regime of the forests while ensuring livelihood and food security of the FDST and OTFD.
- It seeks to rectify colonial injustice to the FDST and OTFD who are integral to the very survival and sustainability of the forest ecosystem.
- The act identifies four types of rights viz. Title rights, Use rights, Relief and development rights and Forest management rights. **Hence, statement 2 is incorrect.**
- The Gram Sabha is the authority to initiate the process for determining the nature and extent of individual or community forest rights or both. **Hence, statement 3 is incorrect.**

Ans. 9 Option A is correct**Explanation**

- Recently, CRISPR-based therapies called "Casgevy" and "Lyfgenia" were approved for sickle-cell disease and β -thalassemia in the UK and the US. **Hence, option A is correct.**
- The approvals represent a shift from treating symptoms to fixing the molecular basis of diseases.

Ans. 10 Option D is correct**Explanation**

- Algorithmic Auditing is the audit of each part of a model's life cycle to gain a better understanding of how the model works, and whether its use leads to potentially problematic outcomes. **Hence, option D is correct.**
- Some regulators globally have begun exploring the concept of Algorithmic auditing.
- However, it requires the regulators to understand and implement these practices.

Mentorship India

Our mission is crystal clear – to provide the finest UPSC mentorship and guidance available in India. We recognize that the path to success in the UPSC examination is both demanding and multifaceted. This is precisely why we have developed a comprehensive approach that goes beyond conventional coaching. Our commitment lies in fostering excellence by equipping aspirants with the necessary tools, knowledge, and unwavering support to not only excel in the examination but also in life itself.

Mentorship India represents more than just an organization; it is a community of ambitious individuals bound together by the shared objective of conquering the UPSC examination. We warmly invite you to embark on this transformative journey alongside us. Whether you are a novice taking your initial steps or a seasoned aspirant aiming for the pinnacle, Mentorship India is your dependable companion in the relentless pursuit of excellence.

+91 9999 057869
www.mentorshipindia.com

A-92, Third Floor, Hari Nagar
Delhi - 110064

 @mentorship.india