NEXT IAS

DAILY CURRENT AFFAIRS (DCA)

Time: 45 Min

Date: 27-12-2024

Table of Content

INDIA'S FIRST UNDERGRADUATE (UG) MINOR PROGRAMME IN QUANTUM TECHNOLOGIES.

In News

The All India Council for Technical Education (AICTE) has partnered with the National Quantum Mission (NQM) to launch **India's first Undergraduate (UG) Minor Programme in Quantum Technologies.**

About the Programme

- The programme aims to prepare India's workforce for the quantum revolution, positioning the nation as a global leader in quantum innovation.
- It is open to students from all engineering disciplines.
- **Focus**: Quantum Computation and Simulation
  - Quantum Communication and Cryptography
  - Quantum Sensing
  - Quantum Materials and Devices
  - It is designed to bridge the gap between academia and industry.
- **Curriculum Structure:** The programme features a modular curriculum allowing students to select 18 credits from a pool of 30, starting from their third semester.
  - It focuses on project-based learning, providing interdisciplinary training and hands-on experience.

Quantum technology

- It relies on the principles of quantum mechanics, which govern subatomic particles, developed by **physicists like Niels Bohr, Werner Heisenberg, and Erwin Schrödinger in the 1920s.**
- Quantum technology is not new and has been fundamental in areas like nuclear power and semiconductors in devices such as phones.

Quantum computing

- Quantum computing is an emergent field of cutting-edge computer science harnessing the unique qualities of quantum mechanics to solve problems beyond the ability of even the most powerful classical computers.
- It encompasses both quantum hardware (the physical systems that process information) and quantum algorithms (the methods used to solve problems).
- Quantum computers are based on quantum mechanics, proposed by Richard Feynman in 1982.

- **Basics :** Classical computers use bits (0 or 1) for computations.
  - Quantum computers use qubits, which can exist in states 0, 1, or both simultaneously (superposition).
  - Qubits can be entangled, meaning the state of one qubit can instantly affect the state of another, even at a distance.

Potential

- Quantum computers could solve highly complex problems much faster than classical supercomputers, potentially reducing computation times from thousands of years to minutes.
- Quantum computing can process data in fundamentally different ways, offering significant performance boosts.

Advancements in Quantum Computing:

- Shor's algorithm (1994) showed quantum computers could factor large numbers quickly, impacting data security.
  - IBM's Q System One (2019) was the first circuit-based commercial quantum computer.
  - Google's Sycamore processor (2019) achieved quantum supremacy, solving problems faster than classical supercomputers.
  - Google's Willow chip (2023) can perform error-corrected calculations, showing improved scalability.

Present Limitations:

- Quantum computers are expensive and complex to build.
- Maintaining qubit stability is challenging due to error rates and decoherence.
- Large-scale applications, like drug discovery and astronomy, require millions of qubits.

Indian Scenario

- **India's National Quantum Mission** was launched in 2023 with a budget of 6,000 crore over eight years.
  - It aims to develop quantum computers and leverage their potential.

Conclusion

- Quantum computing holds transformative potential but requires overcoming significant technical challenges.
- India's investment in this technology reflects its importance for future innovation and development.

Source :TH

DECLINE IN BAD LOANS

Context

- As per the Reserve Bank of India (RBI), the gross non-performing assets (GNPAs) ratio of scheduled commercial banks (SCBs) **declined to the lowest** in more than 13 years.

Major Highlights

- In fiscal year 2024 (FY24), the **consolidated balance sheet of commercial banks** in the country remained **robust**, marked by **sustained expansion in both credit and deposits.**

- **Decline in NPA Ratio:**

  - **March 2010-11:** The gross NPA of banks stood at **2.35%**.
  - **March 2024:** GNPAs of banks reduced by 15.9% year-on-year (y-o-y).
  - **Sept 2024:** The gross NPA ratio improved further to 2.5%.

- **Sectorwise:**

  - The GNPA ratio remained the highest for the agricultural sector at 6.2% and the lowest for retail loans at 1.2% at end-September 2024.
  - The GNPA ratio of education loans fell 2.7% at end-September 2024.
  - It remained the highest across retail loan segments, followed by credit card receivables and consumer durables.

Gross non-performing assets (GNPA) Ratio

- The Gross Non-Performing Assets (GNPA) ratio is a financial metric used to **assess the health of a bank or financial institution** by measuring the proportion of its total loan assets that are classified as non-performing.

  - **Non-performing assets (NPAs)** are loans or advances where the borrower has stopped paying interest or principal repayments.

- **Higher GNPA ratio:** Indicates a higher proportion of loans at risk of default, which can be a sign of financial distress for the bank.

  - It suggests that a larger portion of the bank's loan portfolio is not generating income as expected.

- **Lower GNPA ratio:** Indicates a healthier loan portfolio with fewer loans at risk of default, implying better asset quality and financial stability for the bank.

- **Regulatory Aspects:** Banks are required to report their GNPA ratios regularly to regulators as part of financial transparency and risk assessment measures.

Non-performing Loans

- Bad loans, also known as non-performing loans (NPLs), are loans where the borrower has failed to make the required payments (interest or principal) for an extended period, typically 90 days or more.

- These loans are considered risky for lenders because they are unlikely to be repaid in full, leading to financial losses.

Causes of Bad Loans

- **Poor Lending Practices:** Banks and financial institutions sometimes lend to borrowers without proper credit assessments or due diligence.

- **Economic Downturns:** Economic slowdowns and industry-specific crises affect borrowers' ability to repay loans.

- **Corporate Mismanagement:** Companies with poor management or inefficient operations often struggle to generate profits and repay loans.

- **Overleverage:** Borrowers taking on excessive debt without sufficient ability to repay lead to defaults.

- **Fraud and Corruption:** Fraudulent activities or corruption in the lending process can result in bad loans.

- **Regulatory Issues:** Weak regulatory oversight leads to inadequate risk assessment and monitoring of loans.

Impact

- **Economic Slowdown:** High levels of bad loans reduce credit availability, slowing economic growth and investment.

- **Bank Financial Health:** Banks face increased financial stress due to higher provisions for bad loans, affecting profitability and stability.

- **Lower Lending Capacity:** With more capital tied up in non-performing loans, banks have less to lend to productive sectors.

- **Investor Confidence:** High bad loan levels erode investor trust in the banking sector, affecting stock markets and foreign investment.

- **Government Burden:** The government may need to intervene with bailouts or recapitalization, increasing fiscal pressure.

- **Job Losses:** Companies facing financial difficulties due to bad loans may cut jobs, leading to higher unemployment.

Government Initiatives

- **Insolvency and Bankruptcy Code (IBC):** Introduced in 2016 to speed up the resolution of distressed assets and recover dues from defaulting borrowers.

- **Recapitalization of Banks:** The government has injected capital into public sector banks to strengthen their balance sheets and improve their ability to handle bad loans.

- **Asset Reconstruction Companies (ARCs):** Encouraged the creation of ARCs to buy bad loans from banks and attempt to recover the value.

- **Prudential Norms and Stress Testing:** Strengthening regulations and stress-testing banks to better manage credit risk.

- **Public Sector Bank Consolidation:** Merging weak public sector banks to create stronger, more resilient institutions.

- **Loan Restructuring:** Allowing borrowers to restructure loans under certain conditions to prevent defaults and ease repayment.

Concluding Remarks

- Bad loans continue to be a significant challenge in the financial sector, requiring coordinated efforts from banks, regulators, and policymakers.

- By implementing strong credit appraisal, effective monitoring, and strict recovery mechanisms, financial institutions can manage their loan portfolios better and ensure long-term stability.

- Addressing bad loans will be essential for maintaining the health and resilience of the financial system as the global economy evolves.

Source: IE

BRITAIN'S PARLIAMENT VOTED FOR LEGALISING ASSISTED DYING

Context

- Britain's House of Commons voted by a majority to **legalise assisted dying** — a less controversial synonym for assisted suicide in England and Wales.

About

- The Bill seeks to give terminally ill, mentally competent adults who have less than six months to live a reliable method of forecasting survival.

  - Any such request must be authorised by two doctors and a High Court judge.

- **Current Law:**

  - Suicide, (self-inflicted death), or attempted suicide are not in themselves criminal offences in England and Wales.

  - Conversely, an act that encourages or assists a person to commit suicide or attempted suicide is a criminal offence that carries a 14-year prison sentence under the 1961 Assistive Suicide Act.

- **Advocates** regard the new Bill as a **humane and compassionate intervention** that brings closure to a painful dependence on the immediate family.

- **Opponents** are apprehensive that the severely disabled and vulnerable patients may feel forced to end their lives to relieve the burden on relatives.

What is Assisted Dying?

- Assisted dying refers to the **act of helping someone intentionally end their life,** typically to relieve suffering from a terminal illness or severe, untreatable pain.

- **There are two main forms:**

  - **Assisted Suicide:** A person, with the help of a medical professional or another person, takes their own life, usually by consuming a prescribed lethal dose of medication.

  - **Euthanasia:** A doctor or healthcare provider actively administers a lethal substance to end the life of a patient, typically at their request, to relieve extreme suffering.

- The practice of assisted dying is highly controversial and is legal in only a few countries or regions, with strict guidelines and regulations where it is permitted.

  - Switzerland was the first country which in 1942 legalised assisted dying. Later on the U.S., Australia and New Zealand enacted related legislations.

  - Canada's 2016 Medical Assistance in Dying law may be availed even by those whose condition is not terminal.

What is the position in India?

- The Supreme Court had in **2018 legalised passive euthanasia,** contingent upon the person having a "living will".

  - SC held that the **'right to die with dignity'** forms a part of the **right to life under Article 21** of the Constitution of India.

  - A **living will is a written document** that specifies the **actions to be taken if the person is** unable to make their own medical decisions in the future.

  - **Goa is the first state that has formalised,** to some extent, the implementation of directives issued by the Supreme Court.

- Recently, the **Health Ministry released draft guidelines** on withdrawing medical support for terminally ill patients.

  - These specify that doctors must refrain from initiating life-support measures when they

offer no benefit to the patient and are likely to cause suffering and a loss of dignity.

Arguments in Favour of Assisted Dying

- **Autonomy and Choice:** Individuals should have the right to make decisions about their own lives, including the choice to end it to avoid prolonged suffering.

- **Relief from Suffering:** Assisted dying provides a compassionate option for those with terminal illnesses or unbearable pain, allowing them to die with dignity.

- **Quality of Life:** For some, the quality of life may deteriorate to a point where death is seen as a better option than living with constant suffering or loss of independence.

- **Respect for Individual Rights:** People should have control over their bodies and lives, including the decision to end their life in a humane and controlled manner.

Arguments Against Assisted Dying

- **Moral and Ethical Concerns:** Many believe that taking a life, even at the person's request, is morally wrong and goes against the sanctity of life.

- **Risk of Abuse:** Vulnerable individuals, such as those with mental health issues or pressure from family, may be coerced into choosing assisted dying.

- **Medical Ethics:** Healthcare professionals are traditionally bound to preserve life, and assisted dying may conflict with the fundamental role of doctors in healing and care.

- **Alternative Solutions:** Advocates argue that palliative care and pain management can provide relief, making assisted dying unnecessary.

Way Ahead

- **Stronger Regulations:** Implementing strict legal safeguards to ensure it is only available to those who meet specific criteria.

- **Palliative Care Expansion:** Improving access to high-quality palliative care to address suffering and reduce the demand for assisted dying.

- **Public Debate:** Ongoing discussions about the moral, legal, and ethical implications of assisted dying, can be considered while framing the guidelines.

- **International Perspective:** Countries may look to those with legal assisted dying frameworks (e.g., the Netherlands, Canada) for guidance on effective regulation and safeguards.

- **Mental Health Support:** Providing psychological evaluations to prevent coercion or impulsive decisions and ensure informed consent is given.

Source: TH

A GLOBAL POLIO RESURGENCE AND THE NEED FOR REVALUATION

Context

- WHO has reported that Poliovirus had been detected through routine surveillance of wastewater systems in five countries: Finland, Germany, Poland, Spain, and the United Kingdom since September this year.

What is Polio?

- **Polio (poliomyelitis)** is a highly contagious **viral disease** caused by the poliovirus.

- **It primarily affects children** under the age of 5 and can lead to severe complications such as **paralysis, disability, or even death.**

- **Spread:** Polio spreads mainly through **fecal-oral transmission.**
    - It can also be spread via **respiratory droplets** from coughing or sneezing.

- **Symptoms:** Most cases are mild or asymptomatic.
    - A smaller percentage of infected individuals develop paralytic polio, which can cause paralysis, usually affecting the legs or respiratory muscles.

- **Vaccination:** There is **no cure** for polio, it can only be prevented.
    - Polio vaccine, given multiple times, can protect a child for life.
    - **Vaccines available:** Oral polio vaccine and inactivated polio vaccine. Both are effective and safe.

- **There are three types** of wild poliovirus (WPV): type 1, type 2, and type 3.

State of Polio Eradication

- **Eradication: Type 2** wild poliovirus was declared eradicated in **September 2015** and **Type 3** wild **poliovirus** was declared eradicated in October 2019.
    - **Only type 1** wild poliovirus remains.

- **The WHO South-East Asia Region** was declared free of poliovirus in **2014** and the **WHO African Region** was certified free of wild poliovirus (WPV) in **2020.**
    - **India** was certified polio-free in **March 2014** and continues to be so.

- According to the WHO, **Pakistan and Afghanistan** are the only countries in the world where polio remains endemic.

Vaccines for Polio Eradication

- **Oral Polio Vaccine (OPV):** A live-attenuated vaccine used for its ease of administration and mucosal immunity induction. However, it may lead to **Vaccine-Derived Poliovirus (VDPV)** and continued transmission.
- **Inactivated Poliovirus Vaccine (IPV):** A non-live vaccine protecting against all three poliovirus types without causing disease or transmission.
    - Researchers advocate an OPV-to-IPV switch for expedited eradication.

Global Efforts in Polio Eradication

- **Global Polio Eradication Initiative (GPEI):** The goal is to complete the eradication and containment of all wild, vaccine-related, and Sabin polioviruses, so no child suffers from paralytic poliomyelitis ever again.
    - **GPEI's four pillars** include Routine Immunization, Supplementary immunization, Surveillance, and Targeted mop-up campaigns.
    - At the **2022 World Health Summit in Berlin**, Germany, global leaders pledged **$2.6 billion** to GPEI to end polio.
- **The Global Polio Eradication Strategy 2022-2026** outlines the roadmap to achieving and sustaining a polio-free world, serving as a strategic guide for GPEI stakeholders, partners, donors, and affected governments.
- **World Polio Day** is observed on **24th October,** the birth date of **Jonas Salk**, who led the first team to develop a vaccine against poliomyelitis.

India's Efforts in Polio Eradication

- **Pulse Polio Programme Launch (1995):** It used an **Oral Polio Vaccine (OPV)** strategy, reaching over 1 million children and ensuring every child under five was vaccinated.
    - The campaign became iconic, with the slogan **"Do Boond Zindagi Ki"** (Two drops of life).
    - The Pulse Polio campaigns also relied heavily on **door-to-door efforts,** reaching children in difficult-to-reach areas.
- **Routine Immunization and System Strengthening:** The UIP provided free vaccines against polio, diphtheria, pertussis (whooping cough), tetanus, measles, hepatitis B, and tuberculosis.
- **Inactivated Polio Vaccine (IPV) Introduction (2015):** IPV provides additional protection against polio, especially against **type 2 poliovirus**.

Way Ahead

- There is a need to **strengthen routine surveillance** systems globally, particularly in countries reporting poliovirus in wastewater.
- **Address vaccine inequities** by ensuring all children, especially in conflict zones and remote areas, receive immunization.
- Gradually **shift from OPV to IPV** to eliminate the risk of Vaccine-Derived Poliovirus (VDPV).

Concluding remarks

- As long as a single child remains infected, children in all countries are at risk of contracting polio.
- Failure to eradicate polio from these last remaining strongholds could result in a global resurgence of the disease.

Source: TH

INDIA'S MARITIME SECTOR

Context

- As India ascends the global stage, its maritime sector emerges as a linchpin for commerce, connectivity, and international cooperation.

About the India's Maritime Sector

- India's maritime legacy is as vast and dynamic as its **7,500-kilometer coastline,** which anchors **12 major ports and over 200 minor ones**, which collectively support its burgeoning economy.
- It handles **approximately 95% of the country's trade by volume and 70% by value.**
- In 2023, the nation contributed 16% of global growth, and according to some estimates, it is on course to become the third-largest economy within the next three years.

Strategic Importance

- India's strategic location along major global shipping lanes underscores its importance in international trade.
- Most cargo ships traveling between East Asia and destinations like America, Europe, and Africa pass through Indian waters.
- This not only highlights India's role as a key trading hub but also its potential to influence global maritime governance.

Key Initiatives and Developments

- **Sagarmanthan 2024:** It was organized by the **Ministry of Ports, Shipping, and Waterways (MoPSW)** in collaboration with the **Observer Research Foundation (ORF)**, and is South Asia's largest maritime thought leadership forum.

◆ It focuses on critical themes such as the blue economy, global supply chains, maritime logistics, and sustainable growth.

New Frontiers
• Focuses on connectivity, infrastructure, and development in a rapidly evolving global landscape.

Blue Growth
• Emphasizes building partnerships to advance progress in maritime trade and commerce.

Green and Blue
• Highlights sustainability, technology, and innovation as critical factors for a greener maritime future

Coasts and Communities
• Explores maritime governance and its social impact, cantering on coastal communities and sustainable development.

- **Maritime India Vision 2030:** It outlines **150 initiatives** aimed at propelling India to global maritime leadership.
  - ◆ It encompasses the development of ports, shipping, and waterways, with a strong emphasis on sustainability and innovation.
  - ◆ Key initiatives include Green and Smart Ports; Fleet Expansion; and Infrastructure Development.
- **Panch Karma Sankalp:** It includes **five major announcements** focusing on green shipping and digitization in India.
  - ◆ MoPSW aims to provide 30% financial support for promoting Green Shipping that includes Green Tug Transition Programme, and Green Hydrogen Hubs etc
- **Sagarmala Programme:** It is aimed at driving port-led development across India. It supports various port infrastructure projects, coastal development, and connectivity enhancements.
  - ◆ Financial assistance is provided to State/UT Governments for projects like coastal berths, road and rail connectivity, fish harbours, skill development, cruise terminals, and Ro-Pax ferry services.

Challenges and Opportunities Ahead of India's Maritime Sector

- **Infrastructure and Modernization:** India aims to become **one of the top five maritime nations by 2047**, necessitating substantial investments in infrastructure.
  - ◆ The current cargo handling capacity of 1,600 million metric tonnes needs to expand to 10,000 million metric tonnes.

◆ It requires modernizing ports, enhancing cargo handling systems, and developing green ports and shipping.

- **Regulatory and Policy Framework:** The upcoming **Coastal Shipping Bill and Merchant Shipping Bill** are expected to boost coastal shipping and ease business operations.
  - ◆ However, effective implementation and regulatory clarity are crucial to ensure these legislations achieve their intended impact.
- **Security and Strategic Challenges:** The commissioning of indigenous nuclear-powered submarines and the development of anti-piracy measures highlight India's focus on maritime stability.
  - ◆ However, maintaining and upgrading these capabilities will be an ongoing challenge.
- **Economic and Global Competition:** To become a global leader, India must improve its logistics performance, reduce container dwell time, and enhance turnaround times.
  - ◆ Strategic partnerships and international cooperation will be key to achieving these goals.
- **Environmental Sustainability:** The maritime sector must balance growth with environmental sustainability.
  - ◆ Initiatives like **green ports and green shipping** are essential, but they require significant investment and technological advancements.
  - ◆ Indian Coast Guard plays a vital role in marine environment protection and oil spill response.
- **Human Resources and Skill Development:** It includes training in advanced technologies and ensuring safety standards.
  - ◆ Collaboration with international partners can help in skill development and knowledge transfer.

Conclusion

- India's maritime sector is set for substantial growth, driven by strategic initiatives and government schemes.
- Programs such as the Sagarmala Programme, Maritime India Vision 2030, and the Green Tug Transition Program are modernizing infrastructure, promoting green shipping, and improving port connectivity.
- These efforts, along with the insights from Sagarmanthan, position India's maritime sector for a sustainable and innovative future, establishing its role as a key player in the global maritime domain.

Source: PIB

AI CAN IMPROVE SCHOOL LEARNING OUTCOMES

Context

- Low student engagement in India's education system necessitates innovative solutions like generative AI to enhance learning outcomes.

AI Technologies in Education System

- **Adaptive Learning Systems:** Adjust learning content and difficulty based on individual student needs and progress.
- **Intelligent Tutoring Systems (ITS)** offer one-on-one guidance and interactive lessons.
- **AI-Powered Chatbots** serve as virtual assistants to resolve doubts and provide resources.
- **Automated Grading Systems:** Automate assessment processes for both objective and subjective evaluations.
- **Virtual Classrooms with AI Features** enhance online education through interactive AI tools.

Advantages of AI in Education

- **Support for Inclusive Education:** AI tools can assist students with disabilities through features like text-to-speech, voice commands, and real-time translation.
- **Real-Time Feedback:** Instant feedback mechanisms help students identify and rectify mistakes promptly, fostering continuous improvement.
- **Personalized Learning:** AI adapts to the pace and style of each learner, enhancing understanding.
- **Accessibility:** Remote areas benefit from AI-powered platforms that democratize quality education.

Challenges of AI in Education

- **Bias in AI Systems:** AI tools trained on flawed or biased datasets may perpetuate inequities, leading to unfair or discriminatory outcomes.
- **Over-Reliance on Technology:** Excessive dependence on AI tools may hinder critical thinking and independent learning, making students passive consumers of information.
- **Privacy and Data Security Concerns:** The collection and usage of sensitive student data pose significant risks if not managed ethically and securely.
- **Digital Divide:** Students from economically weaker sections lack access to the devices and internet connectivity required to use AI tools.

Government Steps

- **Responsible AI for Youth 2022:** The program provides opportunities for students to acquire AI skills and become part of a skilled workforce.
- **YUVAi: Youth for Unnati and Vikas with AI** is a national program designed for students from classes 8 to 12 to enable students to learn AI technology and develop social skills.
- **National Education Policy (NEP) 2020** highlights the importance of introducing contemporary subjects, including AI, at all levels of education.

Way Ahead

- **Ethical Design:** AI tools should be built on unbiased datasets and regularly audited to prevent discriminatory outcomes.
- **Privacy and Data Security:** Strong data protection laws and frameworks must be enforced to safeguard student information.
- **Teacher Training Programs:** Educators should be equipped with the skills to use AI tools effectively and guide students in utilizing them responsibly.
- **Balanced Integration:** AI should complement traditional teaching methods, not replace them, ensuring a holistic learning experience.

Concluding remarks

- AI holds immense potential to transform the Indian education system by making learning more personalized, engaging, and accessible.
- With proper guardrails in place, AI can foster a generation of critical thinkers, innovators, and lifelong learners, driving India toward a brighter educational future.

Source: TH

═══ NEWS IN SHORT ═══

INDIA'S PROGRESS IN MALARIA ELIMINATION

In News

the number of annual malaria cases declined from 7.5 crore at the time of independence to 20 lacs by 2023, with over a 97 percent reduction

Malaria

- A life-threatening disease spread by certain types of mosquitoes, mainly in tropical countries.
- **Transmission**: Mostly through bites of infected **female Anopheles mosquitoes.**

◆ Blood transfusions and contaminated needles can also transmit malaria.

• It is preventable and curable.

• The infection is caused by a parasite, not spread person-to-person.

Significant Achievements:

• WHO's World Malaria Report 2024 celebrates India's progress.
  ◆ India exited the WHO's High Burden to High Impact (HBHI) group in 2024.
  ◆ Drastic reduction in malaria cases and deaths between 2017 and 2023.

• Many states transitioned to lower disease burden categories from 2015 to 2023.
  ◆ Only two states (Mizoram & Tripura) remain in the high burden category by 2023.

Comprehensive Strategy:

• National Framework for Malaria Elimination (NFME) launched in 2016.

• The National Strategic Plan for Malaria Elimination (2023-2027) introduced enhanced surveillance and real-time data tracking.

• **Integrated Vector Management (IVM):** Indoor Residual Spraying (IRS) and Long-Lasting Insecticidal Nets (LLINs) used to reduce mosquito populations.

• Malaria prevention and treatment included in Ayushman Bharat health packages.

• India aims to eliminate malaria by 2030.
  ◆ Committed to achieving zero indigenous cases by 2027 and preventing malaria re-establishment.

Source :TH

DR. MANMOHAN SINGH' CONTRIBUTIONS

Context

• Former Prime Minister Dr. Manmohan Singh passed away recently at the age of 92.

About Dr. Manmohan Singh

• Born on September 26, 1932, in undivided Punjab, India

• He served as Prime Minister of the country for two consecutive terms 2004-09 and 2009-14.

His Major Contributions

• **Government Service:** Joined the Government of India in 1971 as Economic Advisor in the Commerce Ministry.

  ◆ Appointed Chief Economic Advisor in the Ministry of Finance in 1972.
  ◆ Held several important positions including Secretary in the Ministry of Finance, Deputy Chairman of the Planning Commission, Governor of the Reserve Bank of India, Advisor to the Prime Minister, and Chairman of the University Grants Commission.

• **Economic Reforms:** As Finance Minister in the 1990s, played a key role in liberalizing India's economy, reducing trade barriers, privatizing state-owned enterprises, and implementing reforms that fostered rapid growth.

• **India's GDP Growth:** India experienced robust economic growth, with the economy expanding at an average rate of 7-8% per year during his tenure as Prime Minister.

• **Fiscal and Banking Reforms:** He contributed to strengthening India's banking sector and addressing inflation, while maintaining fiscal discipline.

• **Nuclear Deal (2008):** He was instrumental in the landmark U.S.-India Civil Nuclear Agreement, which strengthened India's global standing and secured access to nuclear technology and fuel.

• **Social Welfare Programs:** His government introduced key social welfare programs, including the National Rural Employment Guarantee Act (NREGA) and the Right to Information Act (RTI).

• **Literary Work :** He also authored the book **"India's Export Trends and Prospects for Self-Sustained Growth" (1964),** critiquing India's inward-oriented trade policy.

• **Awards and Honors:** Received the Padma Vibhushan (1987), India's second-highest civilian honor.
  ◆ Awarded the Asia Money Award and Euro Money Award for Finance Minister of the Year (1993, 1994).
  ◆ Honored with the Adam Smith Prize (1956) and Wright's Prize (1955).

Source: TH

BALD EAGLE

Context

• The bald eagle is officially declared as the **national bird of the United States.**

About

• The bald eagle is indigenous to **North America**.

• **Appearance:** The Bald Eagle has a distinctive white head and tail with dark brown body and wings. Its yellow beak is large and hooked, and it has powerful talons.

- **Diet:** They are carnivorous birds, mainly feeding on fish, but will also hunt waterfowl or scavenge carrion.
- The Great Seal of the United States is a national symbol used in official documents such as treaties and commissions since **1782**.
- **Symbolism:** The Bald Eagle symbolizes strength, freedom, and independence.
- **Distribution** :It breeds in **Canada, USA, Mexico, and the French island territories** of Saint Pierre and Miquelon
- **Conservation:** The bald eagle is also protected under the **National Emblem Act of 1940,** which makes it illegal to sell or hunt the creature.
  - ◆ **IUCN Red List status :** It is listed as **Least Concern** species .

Source: IT

COMMITTEE FOR ETHICAL ENABLEMENT OF AI IN FINANCIAL SECTOR

In News

The Reserve Bank of India (RBI) has formed a committee to create a framework for responsible and ethical AI use in the financial sector, named FREE-AI.

About the Committee

- The committee will be led by Pushpak Bhattacharyya, Professor at IIT Bombay's Department of Computer Science and Engineering.
- **Committee's Objectives:** Assess the current adoption of AI in financial services globally and in India.
  - ◆ Review global regulatory and supervisory approaches on AI in the financial sector.
  - ◆ Identify potential risks associated with AI and recommend mitigation, evaluation, and monitoring frameworks for financial institutions (banks, NBFCs, FinTechs, PSOs, etc.).

- ◆ Recommend a framework for responsible and ethical AI adoption in the Indian financial sector, including governance aspects.
- ◆ Address any other AI-related matters within the Indian financial sector.
- **Timeline**: The committee will submit its report within six months from the date of its first meeting.

Source :TH

CHINA TO BUILD WORLD'S LARGEST HYDROPOWER DAM

Context

- China has approved the construction of the world's largest hydropower dam close to the Indian border, raising concerns in riparian countries — India and Bangladesh.

About the Dam

- It will be constructed at a massive gorge in the Himalayan region, where the **Yarlung Zangbo River** (the Tibetan name for the Brahmaputra) takes a sharp U-turn before flowing into **Arunachal Pradesh (India) and then Bangladesh**.

- The project, costing over **one trillion yuan ($137 billion)**, is expected to generate over **300 billion kWh** of electricity annually, enough to meet the yearly energy needs of more than **300 million people**.
  - ◆ This capacity would significantly surpass the 88.2 billion kWh of the **Three Gorges Dam** in central China, currently the world's largest hydropower project.
- This project is part of the **14th Five-Year Plan (2021-2025)** and National Economic and Social Development and the Long-Range Objectives Through the Year 2035 adopted by Plenum, a key policy body of the ruling Communist Party of China (CPC) in 2020.
- However, the dam also presents enormous engineering challenges, as the site is located on a **tectonic plate boundary** prone to earthquakes.

Concerns in India and Bangladesh:

- The dam's construction could empower China to control water flow, potentially releasing large amounts of water during times of conflict.
  - India is also building its own dam on the Brahmaputra in Arunachal Pradesh.
- Concerns about the dam's impact on the river's flow and regional water security have been raised by India and Bangladesh.

Do you know?

- India and China established the **Expert Level Mechanism (ELM)** in 2006 to discuss various issues related to trans-border rivers under which China provides India with hydrological information on the **Brahmaputra river and Sutlej river** during the flood seasons.

Source: IE

125TH BIRTH ANNIVERSARY OF SARDAR UDHAM SINGH

Context

- On December 26, India commemorated the 125th Birth Anniversary of Udham Singh—a symbol of courage, justice, and unwavering determination.

About

- **Udham Singh**, born as **Sher Singh** on December 26, **1899**, in Sunam, Punjab, was a passionate patriot and a symbol of unwavering determination.
- He was an Indian revolutionary belonging to the **Ghadar Party** and **Hindustan Socialist Republican Association (HSRA).**

Assassination of General O'Dwyer

- Sardar Udham Singh is best known for assassinating **General O'Dwyer**, the **former lieutenant governor of undivided India's Punjab, in 1940.**
- The assassination was done in revenge for the **Jallianwala Bagh massacre** in Amritsar in **1919.**
- General O'Dwyer was responsible for the massacre of which Singh himself was a survivor.

Trial and Execution

- Udham Singh was tried in London. In custody, used his name, '**Ram Mohammad Singh Azad,** ' to represent the three major religions in India and his anti-colonial sentiment.
- **On July 31, 1940**, he was hanged at Pentonville Prison.

Source: THEWEEK

AUSTRALIA'S ONLINE SAFETY AMENDMENT

Context

- Australia's House of Representatives recently passed the "**Online Safety Amendment (Social Media Minimum Age) Bill, 2024".**
  - The Bill imposes an obligation on certain social media platforms to take reasonable steps to **prevent children under 16 years of age** from having an account.

Impact of social media

- Excessive use of social media leads to feelings of loneliness, depression, and anxiety due to social comparisons, **fear of missing out (FOMO),** and **cyberbullying.**
- The quick, fast-paced nature of content on social media **reduces attention spans,** making it harder to concentrate on tasks that require deep focus.

Global Scenario

- **China** released a draft **"Guidelines for the Establishment of Minors' Modes for the Mobile Internet"** in 2023.
- **The Children's Online Privacy Protection Act (COPPA)**, passed in 1998, by the **United States** requires "operators of websites or online services" to seek parental consent, among other things, to access personal details of children under the age of 13.
- **In 2023, France enacted a law** requiring social network service providers to **refuse children under the age of 15** access unless they are authorized by a parent or guardian.

Indian Scenario

- In India until now, a child above the **age of 13** can open Google, Facebook, and Instagram accounts.
  - **There is no limit** on how much time they can spend on social media.
- **The National Commission for Protection of Child Rights** came out with some guidelines for child and adolescent participation in the entertainment industry in **2023.**

Source: TH

■■■■