



JANUARY, 2024



****** Useful for ******

CSE, ESE, PSUs, State Services Exams, SSC and Banking Exams

1st JANUARY, 2024

PM-Kisan Scheme

 Context: The Government is undertaking a drive to increase the total number of farmer-beneficiaries under the Pradhan Mantri Kisan Samman Nidhi (PM-Kisan) from the current 8.12 crore to about 8.75 crore.

Key Highlights:

- PM-Kisan's is a direct income support (DIS) programme.
- This payment is irrespective of which crops she grows in whatever quantities and sells to whomsoever at any price.
- The payment is also indifferent to inputs used, whether chemical fertilisers and insecticides or organic manure and biological control of pests and diseases.
- Thus, it's a subsidy that is not market-distorting or encouraging chemicals-based agriculture (as against natural farming).

India-South Korea relations

 Context: India-South Korea defence relations marked by recent Indian Army Chief's visit to South Korea in November 2023, which aims to strengthen military ties and address mutual challenges in defence cooperation.

Key Highlights:

- India and South Korea recently celebrated the 50th anniversary of their diplomatic relations.
- In 2020, the two nations endorsed a Roadmap for Defence Industries Cooperation.
- The Korea Plus initiative is designed to boost Korean investments in India.
- The evolving coalition of North Korea, China, and Russia introduces new challenge. It demands a deeper understanding of each country's strategic needs and alignments.

- During the Indian Army Chief's visit to Korea, there
 was a focus on joint development of advanced
 defense systems, particularly in future conflict areas
 like space and cybersecurity. This underscored the
 technological capabilities of both nations.
- There's potential for collaboration in maritime security, including joint patrolling and information sharing, given both countries' significant maritime interests.
- India and South Korea share concerns about terrorism, indicating room for collaborative strategies and coordinated efforts to bolster defense and security.
- Both countries have experience in UN peacekeeping, suggesting they can share insights and resources to enhance global stability, a point underscored in recent diplomatic exchanges.
- The visit of the Chief of Army Staff of India was seen as a catalyst for extending military cooperation, indicating opportunities for enhanced joint exercises and interoperability.

2nd JANUARY, 2024

Radiocarbon Dating

 Context: Radiocarbon dating brought the first verifiable way to keep time to many fields of science, significantly transforming them and our world to a significant degree.

- Radiocarbon dating is a method used to determine the age of organic materials by measuring the amount of carbon-14 they contain.
- It was conceived by American chemist Willard Libby in the 1940s.
- This technique relies on the fact that carbon-14 is continuously created in the atmosphere through the interaction of cosmic rays with nitrogen-14 and is absorbed by living organisms. When an organism dies, it stops absorbing carbon-14, and the isotope begins to decay at a known rate, its half-life being

approximately 5,730 years. Scientists can estimate the time of death by measuring the remaining carbon-14 in the sample.

- Radiocarbon dating provided a numerical dating system, significantly impacting archaeology and geology, known as the "radiocarbon revolution."
- It has clarified the timeline of human activities and civilizations by dating artifacts and sites. It helps in refining historical understanding with improved accuracy and time resolution.
- Initially, radiocarbon dating utilized the Geiger counter, a device that detects radioactive decay by measuring ionizing particles. It was fundamental in early experiments by Libby and his team to detect and measure the decay of carbon-14.
- An advancement of the Geiger counter, it's tuned to ignore background radiation, enclosed in thick shielding for precise measurements, and used with purified samples.
- Accelerator Mass Spectrometry (AMS): Today, AMS is the preferred tool. It allows for more precise dating with smaller sample sizes, even as little as 50 mg. AMS dating involves accelerating the ions to extraordinarily high kinetic energies followed by mass analysis. AMS separates carbon isotopes with a particle accelerator to count the individual carbon-14 atoms, enhancing accuracy and efficiency.

XPoSat Mission

• Context: Recently, XPoSat Mission launched by ISRO.

Key Highlights:

- Black holes and neutron stars have remained a mystery. However, because of their immensely strong magnetic fields, these celestial bodies emit highly energetic X-ray light, which can be used to study their properties.
- For this purpose, on January 1st, 2024, ISRO's PSLV put into orbit the XPoSat (X-ray Polarimeter Satellite)
 the country's first space observatory to study the polarisation of cosmic X-rays.

- This is the world's second space mission to study the polarisation of cosmic X-rays, after NASA's IXPE, launched in 2021. XPoSat operates in a frequency band different from NASA's mission.
- X-rays are electromagnetic waves. These are generated by movements of electric charges when the electric and magnetic fields in its vicinity are disturbed.

Domestic Systemically Important Banks (D-SIBs)

• **Context:** Recently, the Reserve Bank of India (RBI) issued the list of Domestic Systemically Important Banks (D-SIBs).

- D-SIB are banks whose potential failure might seriously disrupt the financial system due to the bank's size, cross-jurisdictional activities, complexity, lack of substitutability and interconnectedness.
- Systemically Important Banks (SIBs) are hence considered 'Too Big to Fail (TBTF)'.
- The framework for handling Domestic Systemically Important Banks (D-SIBs) was published by RBI in 2014 and was effective from 2015.
- RBI places these banks in appropriate buckets depending upon their Systemic Importance Scores (SISs). Based on the bucket in which a D-SIB is placed, an additional common equity requirement has to be applied to it.
- In case a foreign bank having a branch presence in India is a Global Systemically Important Bank (G-SIB), it has to maintain additional CET1 capital surcharge in India as applicable to it as a G-SIB, proportionate to its Risk Weighted Assets (RWAs) in India.
- The RBI has retained the State Bank of India, HDFC Bank and ICICI Bank as Domestic Systemically Important Banks (D-SIBs).
- SBI has been shifted from bucket 3 to bucket 4, and HDFC Bank from bucket 1 to bucket 2. ICICI Bank continues to maintain its previous categorization of bucket 1.

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 The higher D-SIB surcharge for SBI and HDFC Bank will be applicable from April 1, 2025. The additional Common Equity Tier 1 (CET1) requirement will be in addition to the capital conservation buffer.

3rd JANUARY, 2024

Maharishi Valmiki International Airport

• **Context:** Recently the Prime Minister inaugurated the Maharishi Valmiki International Airport in Ayodhya, Uttar Pradesh.

Key Highlights:

- The airport is dedicated and named after Maharishi Valmiki, a revered sage credited as the author of the oldest version of the Ramayana.
- The interiors of the terminal Building are decorated with local art, paintings & murals depicting the life of Bhagwan Shri Ram.
- The terminal building of Ayodhya Airport is also equipped with various sustainability features like an insulated roofing system, LED lighting, rainwater harvesting, landscaping with fountains,
- It also includes a water treatment plant, a sewage treatment plant, solar power plant to meet the fivestar GRIHA (Green Rating for Integrated Habitat Assessment) ratings.

Railway Projects

• **Context:** PM Narendra Modi has unveiled the revamped Ayodhya Railway Station, launched new Amrit Bharat and Vande Bharat trains, and dedicated numerous other railway projects to the nation.

Key Highlights:

- PM Inaugurated Phase 1 of Ayodhya Dham Junction Railway Station. It has modern amenities such as elevators, escalators, food plazas etc. The station is 'accessible for all' and holds an 'IGBC certified green station building' status.
- The IGBC Green Railway Stations rating system stands as the first comprehensive rating system

in India, addressing environmental sustainability specifically in Indian railway stations.

- PM flags off two new Amrit Bharat trains: Darbhanga-Ayodhya-Anand Vihar Terminal and Malda Town-Sir M. Visvesvaraya Terminus (Bengaluru) Express.
- PM launches six new Vande Bharat Trains, including routes such as Shri Mata Vaishno Devi Katra-New Delhi, Amritsar-Delhi, Coimbatore-Bangalore Cantt, Mangalore-Madgaon, Jalna-Mumbai, and Ayodhya-Anand Vihar Terminal.
- PM dedicates three railway projects worth Rs. 2300 crore for regional rail infrastructure strengthening. Projects involve Rooma Chakeri-Chanderi third line, sections of Jaunpur-Ayodhya-Barabanki doubling, and Malhaur-Daliganj doubling and electrification.

Savitribai Phule Jayanti 2024

• **Context:** January 3, 2024, marks the 193rd birth anniversary of Savitribai Phule.

- Savitribai Phule, a Dalit woman from the Mali community, was born on January 3, 1831, in the village of Naigaon in Maharashtra.
- She was married to Jyotirao Phule (a social reformer) at a young age and he provided her education at home.
- Savitribai, along with her husband Jyotirao Phule, pioneered India's earliest girls' school in Bhidewada, Pune, in 1848, shattering patriarchal barriers.
- She became India's first woman teacher and first Indian headmistress.
- The couple opened more such schools for girls, Shudras, and Ati-Shudras (the backward castes and Dalits, respectively) in Pune.
- Pune University bears the name of Savitribai Phule, serving as a tribute to this formidable woman who passionately advocated for women's education in India.
- Along with Jyotirao, Savitribai started the Balhatya Pratibandhak Griha ('Home for the Prevention of Infanticide') as a care centre for children who were victims of rape, sati and those who escaped female infanticide.

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- Savitribai Phule also advocated inter-caste marriages, widow remarriage, and eradication of child marriage, sati and dowry systems, among other social issues.
- In 1873, the Phule established the Satyashodhak Samaj, which translates to the 'Truth-seekers' Society.' This platform welcomed individuals regardless of their caste, religion, or class hierarchies, with the primary goal of promoting social equity.
- They also introduced the 'Satyashodhak Marriage,' which rejected Brahmanical rituals. In this ceremony, the marrying couple pledged to advocate for education and equality.
- Savitribai became involved in relief work during the 1896 famine in Maharashtra and the 1897 Bubonic plague.

4th JANUARY, 2024

Chameleon Malware

 Context: Cybersecurity researchers have identified a powerful variant of the notorious 'Chameleon Trojan' malware', presenting a significant threat to users of Android devices.

Key Highlights:

- The Chameleon malware is a Trojan program capable of infiltrating devices with minimal detection, disabling biometric authentication features such as fingerprint security and face unlock.
- Chameleon Trojan can also evade detection by malware scanning apps.
- Chameleon Trojan attaches itself to legitimate Android apps like Google Chrome to avoid detection and runs the code in the background.
- Chameleon Trojan bundles are undetectable in runtime, allowing it to bypass Google Protect alerts and security software running on the device.
- It adapts its tactics depending on the targeted Android version. On Android 12 and earlier versions, it exploits the Accessibility service, while in more

recent versions, it utilizes a deceptive HTML page to circumvent security restrictions imposed by Google.

An Accessibility Service assists users with disabilities or users of assistive technologies in using Android devices and apps.

- It also steals on-screen content, giving itself more permissions and can capture any PINs and passwords users enter to unlock the device.
- Chameleon Trojan then uses the stolen PIN to unlock the device in the background and steal more sensitive information like credit card passwords, login credentials and more.
- Malware also collects information on app usage habits to determine when the user is using their device and launch attacks when they are least likely to use it.

Desert Cyclone

 Context: A 45-member UAE Land Forces group has arrived in India for the inaugural India-UAE Joint Military Exercise, 'DESERT CYCLONE.'

Key Highlights:

- It is a joint military exercise between India and UAE.
- To improve interoperability in Sub-conventional Operations, including Fighting in Built-Up Area (FIBUA) in desert/semi-desert terrain under Chapter VII of the UN Charter on Peacekeeping Operations.
- To achieve shared security objectives and foster bilateral relations between two friendly nations.
- It will enhance cooperation and interoperability between both the sides during Peace Keeping Operations.
- It will also foster collaborative partnership and help in sharing best practices between the two sides.

5th JANUARY, 2024

Green Deposits Framework

• **Context:** Recently, the RBI released updated guidelines to clarify key provisions related to the RBI's Green Deposits Framework.

Key Highlights:

- Green deposits are similar to regular bank deposits, with the key distinction being that banks commit to allocating the funds from these deposits to support environmentally friendly initiatives.
- For instance, a bank might specify that green deposits will be directed towards financing projects such as renewable energy initiatives to combat climate change.
- RBI clarified that it is not mandatory for the financial institutions such as banks and non-banking financial corporations (NBFCs) to raise green deposits.
- Green deposits can be invested in short-term liquid instruments, limited to a one-year maturity. However, this restriction applies until the funds are allocated to green activities or projects.
- The framework applies to green deposits raised by banks from June 1, 2023, onward. Banks cannot secure green deposits after financing green activities/ projects.
- Banks must pay interest on green deposits, with no restriction on premature withdrawal, subject to guidelines. Early withdrawal does not impact activities funded by green deposits, and there is no penalty for non-allocation to green projects.
- Banks can provide overdraft facilities against green deposits, following guidelines outlined in the RBI circular dated April 19, 2022.
- The framework permits green deposits to be denominated in Indian Rupees only.
- Deposits obtained within this framework fall under the protection of the Deposit Insurance and Credit Guarantee Corporation.
- Given that the activities specified in the green deposits framework align with those outlined in sovereign green bonds, investments in sovereign green bonds are consequently included within the framework.

Prerana Program

• **Context:** The Ministry of Education launched 'Prerana: An Experiential Learning Program' empowering participants with leadership qualities.

Key Highlights:

- It is a week-long residential program for selected students, combining heritage with innovation through experiential and inspirational learning, enhanced with cutting-edge technology.
- It is a week-long residential program for selected students, combining heritage with innovation through experiential and inspirational learning, enhanced with cutting-edge technology.
- Eligibility: Students of Class IX to XII from any recognised school of the country.
- Participants will take Prerana's ethos back to their communities, becoming catalysts for positive change and inspiring others.
- It will incorporate the principles of the Indian education system and the value-based education philosophy, a cornerstone of the National Education Policy (NEP) 2020.

Rashtriya Khel Protsahan Puruskar

• **Context:** The Ministry of Youth Affairs & Sports has declared the 'Rashtriya Khel Protsahan Puruskar' for 2023. The recipients will be honored by the President of India at a dedicated event held at Rashtrapati Bhavan.

- The Rashtriya Khel Protsahan Puruskar is awarded to corporate entities (private and public sector), Sports Control Boards, NGOs, and sports bodies at the State and National levels that have actively contributed to the promotion and development of sports.
- Introduced in 2009, the scheme was later revised in 2015.
- As per the revised plan, this award is presented in four categories:
 - Identifying and nurturing budding/young talent.
 - Promoting sports through Corporate Social Responsibility (CSR).
 - Providing employment to sportspersons and implementing sports welfare measures.
 - Supporting Sports for Development.

• The applications were invited online and sportspersons/coaches/entities were permitted to self-apply through a dedicated Online Portal.

6th JANUARY, 2024

India's Space Mission Plan for 2024

• **Context:** India's advancements in space research, including its solar observatory Aditya-L1 and other missions planned for 2024.

Key Highlights:

- Aditya-L1: Observing the solar atmosphere and contributing to the understanding of space weather from a unique vantage point at the Sun-Earth Lagrange point 1.
- XPoSat: India's first X-ray Polarimeter Satellite, dedicated to studying cosmic radiation and understanding high-energy processes in stellar and galactic systems.
- **Gaganyaan-1:** Laying the groundwork for future manned spaceflights.
- Mangalyaan-2: Orbiting Mars again to continue exploration and research.
- NISAR (NASA-ISRO Synthetic Aperture Radar): A collaboration with NASA for Earth observation, highlighting the importance of international partnerships.
- **Shukrayaan-1:** Exploring Venus to expand knowledge of the solar system.

India's GDP Growth

• **Context:** India's real GDP growth in 2023-24 is estimated at 7.3%, compared to 7.2% a year ago, as per the NSO.

Key Highlights:

 India's economic growth story has been impressive, with its nominal GDP reaching an estimated \$3.5 trillion in 2024 and \$7.3 trillion by 2030(IMF).

- However, maintaining this high growth trajectory faces several challenges, demanding proactive measures.
- GVA growth for the farm sector is estimated to more than halve from 4% a year ago to 1.8% this year, as is the case for Trade, Hotels, Transport, Communication and Services whose GVA uptick is estimated to moderate to 6.3% from 14% in 2022-23.
- The share of private final consumption expenditure in GDP is expected to drop this year to the lowest in at least three years at 56.9% from 58.5% in 2022-23.
- The investment rate is likely to pick up to nearly 30% of GDP, driven by government capex, higher consumption growth is vital for private investments to take on the onus of spurring the economy.
- Manufacturing GVA growth is estimated to accelerate to 6.5% in 2023-24 from just 1.3% a year earlier, while mining GVA is expected to rise 8.1%, from 4.6% in 2022-23.
- Real GDP or GDP at Constant (2011-12) Prices in the year 2023-24 is estimated to attain a level of 171.79 lakh crore, as against the Provisional Estimate of GDP for the year 2022-23 of 160.06 lakh crore, released on 31st May, 2023.

7th JANUARY, 2024

Wetland City Accreditation scheme

• **Context:** India has nominated Indore, Bhopal and Udaipur for the Wetland City Accreditation (WCA) scheme under the Ramsar Convention.

- These are the first three Indian cities nominated for WCA based on the proposals received from state wetlands authorities in collaboration with municipal corporations.
- Sirpur Wetland (Indore), Yashwant Sagar (Indore), Bhoj Wetland (Bhopal), and several wetlands in and around Udaipur are lifelines to these cities.

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- This will provide an opportunity for cities that value their natural or human-made wetlands to gain international recognition.
- The Wetland City Accreditation scheme is an ongoing program administered by the Ramsar Convention on Wetlands.
- The scheme was implemented in 2015 under Resolution XII.10 adopted by the Conference of the Contracting Parties to the Ramsar Convention (COP12).
- To recognize and honor cities demonstrating outstanding efforts in protecting and managing their urban wetlands.
- This voluntary scheme provides an opportunity for cities that value their natural or human-made wetlands to gain international recognition and positive publicity for their efforts.
- The scheme will encourage cities in close proximity to and dependent on wetlands, to highlight and strengthen a positive relationship with these valuable ecosystems.
- The Accreditation scheme should further promote the conservation and wise use of urban and peri-urban wetlands, as well as sustainable socio-economic benefits for local people.

 Overall, 43 cities in the world are accredited as wetlands cities under Ramsar Convention. Of these 18 were accredited in 2018 and 25 in 2022. However, India is yet to make it to the prestigious list.

PRITHvi Vlgyan (PRITHVI) Programme

• **Context:** The Union Cabinet cleared 'PRITHVI' Programme for earth observation, satellite project with Mauritius.

- The Union Cabinet has approved the "PRITHvi VIgyan (PRITHVI)" scheme. The scheme will be implemented from 2021-26 with a total cost of Rs. 4,797 crore.
- It is a comprehensive scheme that will address all five components of the Earth system (atmosphere, hydrosphere, geosphere, cryosphere, and biosphere), enhancing the understanding of Earth System Sciences and delivering reliable services for the country.
- PRITHVI promises to unify various disciplines under Earth sciences, fostering integrated, multidisciplinary research. This collaborative effort aims to address significant challenges in weather, climate, oceanography, cryosphere studies, seismology, and sustainable resource utilization.

