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Monthly Current Affairs Magazine – March 2022

The UPSC Prelims 2022 exam would be conducted on 5th June 2022, while UPSC Mains 2022 examination has been scheduled starting from 16th September 2022. For those, who are preparing for UPSC CSE 2022, needless to say, a thorough study, understanding, and revision of Current Affairs is a must!

To ease the preparation, we are providing monthly current affairs compilation for the aspirants. The magazine contains subject-wise distribution of comprehensive news articles, which have been derived from the sources like PIB, The Hindu, The Indian Express, etc.

A separate section – 'The Editorials Corner' has been added to discuss the important Editorial articles published in The Hindu and Indian Express Newspaper. We have also added MCQ Current Affairs questions with solutions. Aspirants should attempt these questions after reading the magazine, in order to evaluate their knowledge of Current Affairs.

"Every day is a chance to begin again. Don't focus on the failures of yesterday, start today with positive thoughts and expectations."
– Catherine Pulsifer

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Polity & Governance

Jal Jeevan Mission

In News

- Recently while addressing a webinar, Prime Minister stressed upon use of Technology, Service Delivery & Community Participation to achieve 'Har Ghar Jal' under **Jal Jeevan Mission** by 2024.
- 'Har Ghar Jal' under Jal Jeevan Mission aims to provide about 4 Crore tap water connections in rural household this year.

How much is allocated for Jal Jeevan Mission in the Union Budget 2022?

- Rs 60,000 Crore has been allocated in the current financial year under the Union Budget 2022 for the 'Har Ghar Jal' under **Jal Jeevan Mission.**

Achievements of Jal Jeevan Mission

- **Overall Coverage:** Due to effective implementation of Har Ghar Jal Yojna, India is close to provide 50% of its population with tap water connection.
  o 100 districts, 1,144 blocks, 66,763 gram panchayats and 1,37,940 villages have become 'Har Ghar Jal'.
- **States & UTs with 100% coverage:** Three States- Goa, Telangana and Haryana and three UTs- A&N Islands, D&N Haveli & Daman & Diu and Puducherry have provided 100% tap water coverage.
- **Other leading states:** Other States are fast moving and are close to achieve 100% coverage shortly. Of these Punjab stands at 99%, Himachal Pradesh at 93%, Gujarat at 92% and Bihar at 90%.

What is the Vision of the Jal Jeevan Mission ?

- Jal Jeevan Mission (JJM) aims to ensure that every rural household has drinking water supply in adequate quantity of prescribed quality on regular and long-term basis at affordable service delivery charges.
  o Affordable access to quality drinking water will lead to improvement in living standards of rural communities.

Objectives of the Jal Jeevan Mission (Har Ghar Jal)

- **Access to tap water:** JJM aims to provide FHTC to every rural household.
- **Targeted Approach: Jal Jeevan Mission** prioritizes provision of FHTCs in quality affected areas, villages in drought prone and desert areas, Sansad Adarsh Gram Yojana (SAGY) villages, etc.

- **Access to tap water at public places:** JJM aims to provide functional tap connection to Schools, Anganwadi centres, GP buildings, Health centres, wellness centres and community buildings
- **Monitoring:** Jal Jeevan Missio also provides for monitoring functionality of tap connections.
- **Local Ownership:** JJM promotes and ensures voluntary ownership among local community by way of contribution in cash, kind and/ or labour and voluntary labour (shramdaan)
- **Ensuring Sustainability of water system: JJM** also assists in ensuring sustainability of water supply system, i.e. water source, water supply infrastructure, and funds for regular O&M.
- **Human Resource Development:** JJM has provision to empower and develop human resource in the sector such that the demands of construction, plumbing, electrical, water quality management, water treatment, catchment protection, O&M, etc. are taken care of in short and long term.

Awareness Generation: JJM also aims to bring awareness on various aspects and significance of safe drinking water and involvement of stakeholders in manner that make water everyone's business.

Khelo India Scheme

Context

- The Union Government has increased the allocation by 48% for the Khelo India Scheme in the Union Budget 2022-23.
- Government has decided to continue the Scheme of "Khelo India – National Programme for Development of Sports" over the 15th Finance Commission Cycle (2021-22 to 2025-26) at an outlay of Rs 3165.50 crore.

Key Points

- **About:** The Khelo India Scheme was launched in 2017 with a mandate for the identification of talent and nurturing sporting talent to attain the highest levels of achievement at international levels.
  - o The primary focus of the Khelo India Scheme is to create a national-level platform for the athletes to showcase their talent and to identify them for further grooming and financial support.
- **Parent Ministry:** Khelo India Scheme is the flagship Central Sector Scheme of the Ministry of Youth Affairs & Sports.
- **Objective:** Khelo India Scheme aims at infusing sports culture and achieving sporting excellence in the country thus allowing the populace to harness the power of sports through its cross-cutting influence.
- **Coverage:** Khelo India Scheme covers pan India i.e. both urban and rural areas.
  - o Under Khelo India Scheme, India is divided in seven zones namely North, East, West, South and North-East Zones to carry out talent identification.
- **Key Activities: The Khelo India programme includes-**
  - o Playfield development;
  - o Community coaching development;
  - o Promotion of community sports;
  - o Establishment of a strong sports competition structure at both school and university level as also for rural / indigenous sports, sports for persons with disability and women sports;
  - o Filling up of critical gaps in sports infrastructure, including creation of hubs of sports excellence in select universities;
  - o Talent identification and development;
  - o Support to sports academies;
  - o Implementation of a national physical fitness drive for school children; and
  - o Sports for peace and development.

Key Components

Various components of the Khelo India Scheme have been rearranged and rationalized into following five components-

- Creation and Upgradation of Sports Infrastructure
- **Sports Competitions and Talent Development:** 'Khelo India Winter Games' have been included under the 'Sports Competitions and Talent Development' component.

- Khelo India Centres and Sports Academies
- **Fit India Movement:** It has been introduced as a separate and dedicated component.
- Promotion of Inclusiveness through Sports.

'Labarthiyon Se Rubaroo' Initiative

Context

- Recently, Secretary, MoHUA chaired 'Labharthiyon Se Rubaroo' initiative of Ministry of Housing and Urban Affairs (MoHUA).
- Under 'Labharthiyon Se Rubaroo' initiative, virtual interaction with Pradhan Mantri Awas Yojana (Urban) beneficiaries from Assam, Jharkhand & Kerala were held.

Key Points

- **Background:** 'Labharthiyon Se Rubaroo' initiative was launched by the Ministry in September 2021.
  - o This was the 22nd edition of the programme hosted by the Ministry with beneficiaries of different States/UTs.
- **About:** 'Labharthiyon Se Rubaroo' initiative has been launched to monitor progress of projects under the Mission by directly interacting with beneficiaries.
  - o 'Labarthiyon Se Rubaroo' has been planned as part of Azadi Ka Amrit Mahotsav.
- **Objectives:** Key objectives of the 'Labharthiyon Se Rubaroo' initiative are-
  - o To monitor the progress of the projects,
  - o To bring about able governance and transparency by direct interaction with the beneficiaries,
  - o To create a platform for officials from MoHUA and respective States/UTs to facilitate and expedite the construction of houses in their respective cities and
  - o To create a feeling of inclusiveness among beneficiaries.

Azadi Ka Amrit Mahotsav

- **About:** Azadi Ka Amrit Mahotsav is an initiative to celebrate and commemorate 75 years of progressive India and the glorious history of its people, culture and achievements.
  - o Azadi ka Amrit Mahotsav is an embodiment of all that is progressive about India's socio-cultural, political, and economic identity.

- **Celebrating People of India:** Azadi Ka Amrit Mahotsav is dedicated to the people of India who have been instrumental in bringing India thus far in its evolutionary journey.
  o People of India also hold within them the power and potential to enable the Prime Minister's vision of activating India 2.0, fuelled by the spirit of Atmanirbhar Bharat.
- **Beginning of Azadi Ka Amrit Mahotsav:** The official journey of "Azadi ka Amrit Mahotsav" commenced on 12th March 2021 which starts a 75-week countdown to our 75th anniversary of Independence.

National Startup Awards 2022

National Startup Awards in News
- Recently, the Department for Promotion of Industry and Internal Trade (DPIIT) has launched the third edition of the National Startup Awards.

National Startup Awards 2022
- **Parent Ministry:** National Startup Awards have been designed by Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry.
- **Mandate:** In line with Azadi Ka Amrit Mahotsav, the National Startup Awards 2022 will acknowledge startups and enablers who have been instrumental in revolutionising the development story of India.
  o The National Startup Awards 2022 will acknowledge startups that hold within them the power and potential to further fuel the spirit of Aatmanirbhar Bharat.
  o The National Startup Awards 2022 will also reward exceptional incubators and accelerators as key building blocks of a robust startup ecosystem.
- **Category:** The 2022 awards for startups will be given in 17 sectors classified into 50 sub-sectors. In addition, there are seven special categories of awards for startups:
  o Women-led startups
  o Impact in rural areas
  o Campus startups
  o Manufacturing excellence
  o Innovation tackling the pandemic (preventive, diagnostic, therapeutic, monitoring, digital connect, work from home solutions, etc.)
  o Solution delivery or business operations in Indic languages
  o Startups from North-East and Hilly States/ Union Territories.

- **Prize:** A cash prize of INR 5 lakh will be awarded to each winning startup. A cash prize of INR 15 lakh each will be awarded to one winning incubator and one winning accelerator.
- **Significance:** National Startup Awards 2022 is important for start-ups due to following-
  o The winners and runners-up will also be given opportunities to present their solutions to relevant public authorities and corporates for potential pilot projects and work orders and pitching opportunities with investors.
  o They will also be given priority for participation in various national and international startup events.

Previous Editions of National Startup Awards
- The first National Startup Awards were announced in 2020 and witnessed applications from over 1,600 startups and ecosystem enablers across India.
- National Startup Awards 2021 saw participation from over 2,200 startups and ecosystem enablers.

North East Special Infrastructure Development Scheme (NESIDS)

Context
- Recently, union government has informed about the performance for the North East Special Infrastructure Development Scheme (NESIDS) in Parliament.
- So far, 110 projects worth Rs.2563.14 crore have been sanctioned in the North Eastern States under NESIDS, which are at various stages of implementation.

Key Points
- **About:** The North East Special Infrastructure Development Scheme (NESIDS) was sanctioned by the Government of India to focus on projects relating to infrastructure creation concerning water supply, power and connectivity, and thereby enhancing tourism.
- **Ministry:** NESIDS is being implemented by the Union Ministry of Development of North-East Region (MoDoNER).
- **Funding:** NESIDS is a central sector scheme with 100% financial assistance by the Union Government.
- **Financial Assistance and Focus Areas:** NESIDS is a central sector scheme (100% funding by central government). Under NESIDS, financial assistance is provided-
  o To enhance tourism through physical infrastructure projects relating to water supply, power and connectivity; and
  o To upgrade social infrastructure for primary and secondary education and health.

Key Benefits
- The assets to be created under the new scheme of NESIDS will strengthen health care and education facilities in the region
- NESIDS will also encourage tourism thereby the employment opportunities for local youth.
- The scheme will act as a catalyst in overall development of the region in the years to come.

PM Gati Shakti National Master Plan

Context
- While presenting the Union Budget 2022-23, Finance Minister said the scope of PM Gati Shakti National Master Plan will encompass the seven engines for economic transformation, seamless multimodal connectivity and logistics efficiency.
- PM Gati Shakti National Master Plan will encompass seven engines of economic growth-
  - Roads,
  - Railways,
  - Airports,
  - Ports,
  - Mass Transport,
  - Waterways, and
  - Logistics Infrastructure.

Union Budget 2022-23: Key Provisions about PM Gati Shakti National Master Plan
- **About:** PM GatiShakti is a transformative approach for economic growth and sustainable development.
  - Under PM Gati Shakti National Master Plan, all seven engines will pull forward the economy in unison.
- **Mandate:** PM GatiShakti aims to provide world-class modern infrastructure and logistics synergy among different modes of movement – both of people and goods – and location of projects.
- **Significance:** These seven engines are supported by the complementary roles of Energy Transmission, IT Communication, Bulk Water & Sewerage, and Social Infrastructure.
  - **Clean Energy and Sabka Prayas**- the efforts of the Central Government, the state governments, and the private sector together will be part of the approach.
  - **This will** lead to huge job and entrepreneurial opportunities for all, especially the youth.

Union Budget 2022-23: Seven Engines of Economic Growth under PM GatiShakti
- **Road Transport:** PM GatiShakti Master Plan for Expressways will be formulated in 2022-23 to facilitate faster movement of people and goods.
  - The National Highways network will be expanded by 25,000 km in 2022-23.
  - Rs.20,000 crore will be mobilized through innovative ways of financing to complement the public resources.
- **Seamless Multimodal Movement of Goods and People:** Data exchange among all mode operators will be brought on Unified Logistics Interface Platform (ULIP), designed for Application Programming Interface (API).
  - This will provide for efficient movement of goods through different modes, reducing logistics cost and time, assisting just-in-time inventory management, and in eliminating tedious documentation.
  - This will also provide real time information to all stakeholders, and improve international competitiveness.
- **Multimodal Logistics Parks:** Contracts for implementation of Multimodal Logistics Parks at four locations through PPP mode will be awarded in 2022-23.
- **Railways:** Railways will develop new products and efficient logistics services for small farmers and Small and Medium Enterprises.
  - It will also take the lead in integration of Postal and Railways networks to provide seamless solutions for movement of parcels.
  - One Station-One Product' concept will be popularized to help local businesses & supply chains.
  - As a part of Atmanirbhar Bharat, 2,000 km of network will be brought under Kavach, the indigenous world-class technology for safety and capacity augmentation in 2022-23.
  - Four hundred new-generation Vande Bharat Trains with better energy efficiency and passenger riding experience will be developed and manufactured during the next three years.
  - One hundred PM GatiShakti Cargo Terminals for multimodal logistics facilities will be developed during the next three years.

- **Mass Urban Transport including Connectivity to Railways:** Innovative ways of financing and faster implementation will be encouraged for building metro systems of appropriate type at scale.
  - o Multimodal connectivity between mass urban transport and railway stations will be facilitated on priority.
- **Parvatmala: National Ropeways Development Program:** National Ropeways Development Program will be taken up on PPP mode as a preferred ecologically sustainable alternative to conventional roads in difficult hilly areas.
  - o The aim is to improve connectivity and convenience for commuters, besides promoting tourism.
- **Capacity Building for Infrastructure Projects:** with technical support from the Capacity Building Commission, central ministries, state governments, and their infra-agencies will have their skills upgraded.
  - o This will ramp up capacity in planning, design, financing (including innovative ways), and implementation management of the PM GatiShakti infrastructure projects.

Reimagining Healthcare in India through Blended Finance

Context

- Recently, NITI Aayog has unveiled a white paper on '**Reimagining Healthcare in India through blende finance'** to improve access to affordable and quality healthcare.

Key points

- **Atal Innovation Mission** (AIM), NITI Aayog, and the U.S. Agency for International Development (**USAID**) has announced a new partnership under the Sustainable Access to Markets and Resources for Innovative Delivery of Healthcare (**SAMRIDH**) initiative.
- **Objective**: To improve access to affordable and quality healthcare for vulnerable populations in tier-2 and tier-3 cities, and rural and tribal regions.
- In 2020, USAID, IPE Global, and stakeholders from the Indian government, academia, and the private sector developed the innovative SAMRIDH blended finance facility to combine public and philanthropic funds with commercial capital to create and rapidly scale market-based health solutions.

- **AIM and SAMRIDH will leverage philanthropic capital**, and public sector resources to offset barriers for commercial investments in small and medium health enterprises to invest in and scale healthcare solutions.
- Reimagining Healthcare offers approaches to leverage innovative financing mechanisms to improve healthcare services for India's most vulnerable populations.
- The collaboration will focus on **innovations across the healthcare landscape** with the common goal to mount an effective response to the ongoing third wave of COVID-19 and build health system preparedness for future infectious disease outbreaks and health emergencies.

What is blended finance?

- Blended finance is an approach towards financing where **catalytic funding** (e.g., grants and concessional capital) from public and philanthropic sources is utilized to mobilize additional private sector investment to realize social goals and outcomes.
- Blended finance is the **strategic use of concessional capital** and private capital in projects where the perceived risks are too high for private players to participate alone.

Benefits

- **Addresses main barrier of private investors**: Blended finance addresses the main barrier of private investors, which is the high perceived risk on an investment opportunity, and the poor returns for the given risk relative to comparable investments.
- **Help achieve social goal**: By reducing dependency on government debt and sovereign guarantee, and building a pipeline of commercially viable social impact projects.

- **Valuable tool:** Blended finance is a valuable tool for bilateral and multilateral agencies, philanthropic organizations, and Corporate Social Responsibility (CSR) foundations to complement traditional grant-making and invest their monies in the form of loan/equity/guarantee in projects that deliver financial and social returns.

Safer Internet Day: Internet and Children Safety

Context
- Safer Internet Day is celebrated on **8th February every year**. In this article, we will analyze how internet has impacted the life of India's children.

Key points
- Various studies reveal that **COVID pandemic has exposed children** to the vulnerabilities of online surfing.
- A study by CRY (Child Rights and You) conducted in 2020 revealed that close to **half of the respondents** (48 per cent) displayed some level of addiction to the Internet.
- Similarly, as per a report by UK based Internet Watch Foundation, year **2021 was the worst on record** for child sexual abuse online.
- According to the latest NCRB (2020) data, there is a sharp increase (**more than 400 per cent**) in cyber-crimes committed against children, in comparison to the last year.
  - Among the 842 reported cases in 2020, 738 cases were about publishing or transmitting of materials depicting children in sexually explicit act.

Reasons of internet addiction
- **Over-reliance on internet:** Internet is increasingly becoming an integral part of children's lives, as a major method for consumption of information and daily communication, and for exploring a wide range of interests.
- **Online risks**: This over-reliance has provided a wide range of opportunities to children, along with exposing them to online risks like:
  - Content-related risks, where the child is the recipient of mass-produced content.
  - Contact-related risks, when they are victims of adult-initiated online interactions requiring the child to participate, possibly unwittingly or unwillingly.
  - Conduct-related risks, where the child becomes an actor or interactor within a wider peer-to-peer or networked interaction.
- **Covid-19 pandemic**: Increased reliance on the Internet during the pandemic by younger children made them more vulnerable.
- **Economic hardship of families**: Economic hardship of families and limited access to community support and services that are instrumental in addressing child sexual exploitation, may have rendered children more susceptible to being exploited online.

How child addiction to internet can be managed?
- **Awareness and education**: Awareness and educating the children—and their parents—about the risks associated with online world is the first pillar to ensure children's rights.
- **Cohesion and synergy**: However, awareness and education alone cannot resolve a sea of challenges the online world brought us to. There is a need for cohesion and synergic action taken by different forums for internet governance policy and child protection services.
- **Role of MWCD**: Union Ministry of Women and Child Development (MWCD) has a crucial role to play, in facilitating the cohesion.
  - The Ministry has a key role to play in in addressing the gaps in legislative and policy measures on several cyber safety issues such as criminalisation of cyberbullying.
- **Supportive supervision and guidance**: Ensuring supportive supervision and guidance from parents and caregivers at home s another important aspect in promoting opportunities and benefits, and curbing risks and harms among the adolescents.
- **Budgetary support**: Though child protection budget in the Budget 2022 has marked an increase of 44 per cent, there is no clarity in terms of what portion of that will go to address online safety of children, since there is no such component under the child protection umbrella.

Way forward
- All the concerned stakeholders including the **government, the civil society and the parents** need to make sure that children are well-protected from any online harm.

"Sagar Parikrama" Program

Context
- Ministry of Fisheries, Animal Husbandry and Dairying is organizing "Sagar Parikrama" program on occasion of 75th Azadi Ka Amrit Mahotsava.

Key Points
- **About:** As a mark of gratitude to our seas, Sagar Parikrama Program is saluting our great freedom fighters, sailors and fishers.
  - The first leg of 'Sagar Parikrama' shall begin from Gujarat on 5th Feb 2022 for 2 days.
- **Objective:** Sagar Parikrama aims to focus on sustainable balance between the utilization of marine fisheries resources for food security of nation and livelihoods of coastal fisher communities and protection of marine ecosystems.
- **Organization of the Program:** Sagar Parikrama program is proposed to be celebrated in all coastal states/UTs.
  - **Sagar Parikrama Program is to be celebrated** through a pre-decided sea route down right from Gujarat, Diu, Maharashtra, Goa, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Odisha, West Bengal, Andaman & Nicobar and Lakshadweep Islands.
  - **Sagar Parikrama Program is** to have interaction program with fishermen, fisher communities and stakeholders in these locations and districts.
- **Significance:**
  - Sagar Parikrama Program is being celebrated as a part of 75th "Azadi Ka Amrit Mahotsava" in order to know the problems of Coastal Fisher folk.
  - Under Sagar Parikrama, an evolutionary journey is envisaged in the sea across the coastal belt demonstrating solidarity with all fisher folk, fish farmers and concerned stakeholder's as a spirit of Aatmanirbhar Bharat.
- **Parent Ministry and Other Stakeholders:** Sagar Parikrama is to be celebrated by the Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India and National Fisheries Development Board along with-
  - Department of Fisheries, Government of Gujarat,
  - Indian Coast Guard,
  - Fishery Survey of India,
  - Gujarat Maritime Board and
  - fishermen representatives

Key Events
- During the event, certificates /sanctions related to Pradhan Mantri Matsya Sampadha scheme, KCC & State Scheme shall be awarded to the progressive fishermen, especially costal fishermen, fishers and fish farmers, young fishery entrepreneurs etc.
- Literature on PMMSY scheme, State schemes, FIDF, KCC etc. shall be popularized through print media, electronic media, videos, digital campaign through jingles to popularize among fishers for wide publicity of schemes.

Services e-Health Assistance and Teleconsultation (SeHAT)

Context
- Recently, the Ministry of Defense has decided to begin the home delivery of medicines under Services e-Health Assistance and Teleconsultation (SeHAT).

Key Points
- **Background:** As part of the Government's commitment to Digital India and e-Governance, the Raksha Mantri launched SeHAT on 27 May 2021.
- **About:** Services e-Health Assistance and Teleconsultation (SeHAT) is the tri-services teleconsultation service of the MoD designed for all entitled personnel and their families.
  - SeHAT has been a great example of innovation, especially at a time when the nation is fighting the COVID-19.
- **Aim:** Services e-Health Assistance and Teleconsultation (SeHAT) aims to provide quality healthcare services to patients from the comfort of their homes.
- **SeHAT stay home OPD:** It is a patient-to-doctor system where the patient can consult a doctor remotely through the internet using his Smartphone, laptop, Desktop or Tablet.
- **Performance:** Since its launch, there have been more than 10,000 successful teleconsultations on SeHAT, with a strong team of 2000 plus doctors onboard.

Key Features
- **Virtual Consultation:** In SeHAT, the consultation occurs through video, audio and chat at the same time.
- **Safe and structured video-based clinical consultations** between a doctor in a hospital, and a patient within the confines of his or her home anywhere in the country, have been enabled.

- **Easy and Simple to Use:** SeHAT is designed to be extremely simple and easy to use, which requires minimal effort from the users.
- **Accessibility:** The user does not need to pay anything to seek teleconsultation & can simply access the services by visiting https://sehatopd.gov.in, or by using the SeHAT apps available on the Play store & App Stores.

SMILE scheme

Context
- Recently, Union Minister for Social Justice & Empowerment launched the Central Sector scheme "SMILE: Support for Marginalised Individuals for Livelihood and Enterprise".

Key Points
- **About:** SMILE scheme is set to provide welfare and rehabilitation to the Transgender community and the people engaged in the act of begging.
- **Objective:** SMILE Scheme aims to provide comprehensive welfare and rehabilitation measures to the Transgender community and the people engaged in the act of begging.
- **Ministry:** SMILE Scheme is a central sector scheme, designed and being implemented by the Ministry of Social Justice and Empowerment.
- **Fund Allocation:** The Ministry has allocated Rs. 365 Crore for the scheme from 2021-22 to 2025-26.

Key Features
- **National Portal & Helpline:** It will provide necessary information and solutions to the problems of the Transgender community and the people engaged in the act of begging.
- **Sub-**Schemes under SMILE Scheme: There are two sub-schemes under the SMILE Scheme-
  - **Central Sector Scheme for Comprehensive Rehabilitation for Welfare of Transgender Persons'** and
  - **'Central Sector Scheme for Comprehensive Rehabilitation of engaged in the act of Begging'**

SMILE scheme- Sub-schemes
- **Central Sector Scheme for Comprehensive Rehabilitation for Welfare of Transgender Persons:**
  - It provides Scholarships for Transgender Students studying in IX and till ost-graduation to enable them to complete their education.

- It has provisions for Skill Development and Livelihood under PM-DAKSH scheme.
  - Through Composite Medical Health it provides a comprehensive package in convergence with PM-JAY supporting Gender-Reaffirmation surgeries through selected hospitals.
  - The Housing facility in the form of 'Garima Greh' ensures food, clothing, recreational facilities, skill development opportunities, recreational activities and medical support etc. to the Transgender community and the people engaged in the act of begging.
  - The Provision of Transgender Protection Cell in each state will monitor cases of offences and to ensure timely registration, investigation and prosecution of offences.
  - The National Portal & Helpline will provide necessary information and solutions to the Transgender community and the people engaged in the act of begging when needed.
- **Central Sector Scheme for Comprehensive Rehabilitation of engaged in the act of Begging:** It will focus on Survey and identification, Mobilisation, Rescue/ Shelter Home and Comprehensive resettlement.

Central Media Accreditation Guidelines 2022

Context
- Recently, the Union Ministry of Information and Broadcasting has released the Central Media Accreditation Guidelines-2022, whereby it has given **certain conditions** under which the accreditation o a journalist will be withdrawn or suspended.

Provisions under which a journalist's accreditation may be withdrawn:
- The Central Media Accreditation Guidelines-2022 have outlined the conditions for withdrawal of accreditation if a journalist acts in a manner prejudicial to the
  - country's security, sovereignty, and integrity
  - friendly relations with foreign states,
  - public order or is charged with a serious cognisable offence.
- Most of the provisions are drawn from Article 19(2) of the Constitution which are understood to serve as **guidelines for the press and media**.

How is it different from the past?

- Critics are saying that the guidelines are **more in the nature of proscriptions** rather than prescriptions.
- In laying down the conditions for withdrawal of accreditation, these guidelines **serve more as censorship** rules rather than guidelines.
- **Previous guidelines were more general** in nature and did mention that accreditation would be withdrawn if found to be misused.
- In the new guidelines, however, there are 10 provisions under which accreditation to a journalist can be withdrawn.

Implementation

- As per the guidelines, the Government of India shall constitute a committee called the **Central Media Accreditation Committee** chaired by the Principal DG, Press Information Bureau (PIB).
- This committee will comprise up to **25 members nominated by the Government** to interpret the guidelines for withdrawal of accreditation.

Criticism of the guidelines

- **Deteriorating ranking in press freedom**: In 2020, Reporters Without Borders (RSF) ranked India 142nd among 180 countries on the World Press Freedom Index 2020.
- **Against the constitutional right of free media**: The guidelines carry the threat of coming in the way of the functioning of a free media.
  - Though freedom of the press is not explicitly stated in the Constitution, the ambit of freedom of expression under Article 19 of the Constitution has been generally interpreted as having laid down the template for a free press in the country with subsequent pronouncements of courts ensuring it.
- **Risk of delegitimising reports**: The reports, especially of an investigative nature, critical of the Government could now be seen as prejudicial to the interests of the country and it will be left to the interpretation and discretion of the Central Media Accreditation Committee to read the guidelines and decide what is defamatory while denying accreditation to a journalist.

Accreditation of a journalist

- A journalist with a **minimum of five years** as a full-time working journalist can apply for accreditation to the PIB, after being thoroughly checked by the Ministry of Home Affairs.
- Any journalist working with a newspaper which has a daily circulation of 10,000; news agencies with at least 100 subscribers and digital news platforms with 10 lakh unique visitors can apply.

Importance of accreditation

- Accreditation helps in **access to government offices and to special events** and functions organised by the Government of India.
- Some Ministries like Home and Defence and Finance **allow access only to accredited journalists.**

Previous attempts to regulate the media

- **Defamation Bill in 1988** is the most infamous proposal to control the press before the advent of private news channels. Under pressure from a unified media and several sections of the public, the Bill was withdrawn.
- State Governments like **Kerala and Rajasthan** had come out with their own versions of proposed rules which were withdrawn under pressure and criticism.
- In 2018, the PIB (under I&B Ministry) had proposed a **Fake News Guidelines** under which accreditation could be cancelled if the journalist was seen as peddling content that was fake. The order was withdrawn under pressure.
- More recently the Government proposed a **series of rules under the IT Act** to check digital news content.

International Relations

Asian Infrastructure Investment Bank (AIIB)

Context

- Recently, Former Reserve Bank of India (RBI) governor Urjit Patel has been appointed vice-president of the Beijing-based Asian Infrastructure Investment Bank (AIIB).
- Mr. Patel will serve a three-year term as one of the multilateral development bank's five vice-presidents, and will take the place of former Gujarat Chief Secretary D.J. Pandian.
  o He will be leading the AIIB's investment operations and all sovereign and non-sovereign lending in South and Southeast Asia.

Key Points

- **About:** Asian Infrastructure Investment Bank (AIIB) is a multilateral development bank with a mission to improve social and economic outcomes in Asia.
  o **AIIB Headquarter:** Asian Infrastructure Investment Bank (AIIB) headquartered in Beijing and began its operations in January 2016.
- **AIIB Articles of Agreement:** Asian Infrastructure Investment Bank (AIIB) was established through this agreement.
  o Asian Infrastructure Investment Bank (AIIB) came into force on 25 December 2015).
  o Asian Infrastructure Investment Bank (AIIB) commenced its operations in 2016.
- **AIIB Membership:** The Parties (57 founding members) to agreement comprise the Membership of the Bank.
  o Asian Infrastructure Investment Bank (AIIB) membership has now grown to 104. The U.S. and Japan are not among its members.
  o Fourteen of the G-20 nations are AIIB members including France, Germany, Italy and the United Kingdom.
- **AIIB Membership Criteria:** Membership to the Asian Infrastructure Investment Bank (AIIB) is open to all members of the Asian Development Bank or the World Bank.
  o The bank also allows non-sovereign entities to apply for membership provided their home countries are members.

- **Shareholder & Voting Right:** In AIIB, China is the largest shareholder with 26.61 % voting shares in the Asian Infrastructure Investment Bank followed by India (7.6%), Russia (6.01%) and Germany (4.2 %).
  o The regional members hold 75% of the total voting power in the Asian Infrastructure Investment Bank (AIIB).

Key Objectives

- AIIB aims to **promote sustainable economic development**, create wealth and augment infrastructure connectivity in Asia by investing in infrastructure & other productive sectors.
- AIIB working towards **fostering regional partnership & cooperation** to address developmental challenges by working in tandem with other bilateral and multilateral developmental institutions.
- Asian Infrastructure Investment Bank (AIIB) promotes **investment in private & public capital** for development purposes.
- AIIB uses the resources at its disposal **for funding development in the region**, including projects that will contribute to the balanced economic growth of the region.
- AIIB also works for **promoting private investment in enterprises, activities, and projects** contributing to economic development in the region **wherever private capital is not available**.

India and AIIB

- **Voting Rights:** India has 7.6% shareholding of the AIIB. This makes India the second-largest shareholder in the Asian Infrastructure Investment Bank (AIIB), next only to China.
- **Infrastructure Financing:** AIIB has approved more loans for India than any other member of the bank. The AIIB has funded 28 projects in India amounting to $6.7 billion.
  o The projects in India span a range of sectors such as energy, water, transport, etc. including the Bangalore Metro Rail.
  o Last year, the AIIB also approved a $356.67 million loan to the Indian government to support the expansion of the Chennai metro rail system.
  o The bank has also given approval for $500 million for a COVID-19 Emergency Response Fund and Health Systems Preparedness Project in India.

India-UAE Signed Comprehensive Economic Partnership Agreement (India-UAE CEPA)

Context
- Recently, India and United Arab Amirate (UAE) signed India-UAE CEPA after 88 days of negotiations.
  o India-UAE CEPA is expected to come into effect in about 60 days.
- India UAE Comprehensive Economic Partnership Agreement (CEPA) is expected to be extremely beneficial for MSMEs, startups, farmers, traders and all sections of businesses.

Key Features
- **Tariff Reduction:** India-UAE FTA is set to reduce tariffs for 80 per cent of goods and give zero duty access to 90 per cent of India's exports to the UAE.
  o Annual exports worth about $26 billion from India that currently attract a 5-per cent import duty in the UAE are set to benefit.
- **Scope:** The India-UAE CEPA agreement covers areas including-
  o Goods,
  o Services,
  o Rules of origin,
  o Customs procedures,
  o Government procurement,
  o Intellectual property rights, and
  o E-commerce.
- **Rules of Origin:** India-UAE CEPA includes robust rules of origin to protect both economies from misuse of the agreement by third countries, including a requirement of "melt and pour" for steel exports to qualify as domestically produced products from either country.
- **Safeguard Mechanism:** The agreement also provides a permanent safeguard mechanism to protect businesses in both countries to prevent "any unnecessary or unwarranted surge in volumes of (imports) any particular product
- **Speedy Regulatory Approval for Medical Products:** Under the India-UAE CEPA, the UAE agreed to facilitate market access and regulatory approval within 90 days for Indian pharmaceutical products and medical products.
  o This facility is available to the products that have been approved in developed jurisdictions such as the US, the UK, the EU, Canada and Australia.

- **Focus on Technology and Sustainability:** Technology, digital trade and sustainability have a big focus in the New India-UAE partnership.
- An MoU among APEDA, DP World & Al Dahra on the UAE side regarding "Food Security Corridor Initiative" has been prepared, under which India will be able to play an important role in food security of UAE

Expected Outcomes
- **Boost Bilateral Trade:** India-UAE FTA is expected to boost annual bilateral trade to $100 billion within 5 years of its adoption, up from about $60 billion currently.
- **Benefit Labour intensive sectors:** India-UAE CEPA would boost the country's exports in a number of labour-oriented sectors.
  o **These sectors would** include gems and jewellery, textiles, leather, footwear, sports goods, engineering goods, and pharmaceuticals.
- **Employment Generation:** India-UAE CEPA is likely to create an estimated 10 lakh jobs in India.
- **Strategic Advantage:** the deepening of the relationship with the UAE would also help Indian exporters gain access to other West Asian countries, Africa and some parts of Europe.
- **Generate Employment Opportunities in Technology sector:** The India-UAE CEPA will open many new opportunities for Indians to work in UAE, including in fintech, ed-tech, green tech, automation and Artificial Intelligence.

India's Diplomatic Boycott of the Beijing Olympics 2022

Context
- Recently, India announced diplomatic boycott of Beijing Winter Olympics 2022 over Galwan row with China.
  o Prasar Bharti also announced that Doordarshan will not telecast the opening and closing ceremonies of the Bejing Winter Olympics.
- Other countries like USA, New Zealand, Australia and Canada have already announced diplomatic boycott of the Beijing Olympics 2022.
  o Although they will all send athletes to compete, no ministers or officials will attend.

Reasons for India's Diplomatic Boycott

- **Reason for Boycott:** Indian response of boycotting the Beijing Olympics came in the backdrop of China picking a Chinese soldier involved in the Galwan incident as an Olympic torchbearer.
  - The Galwan clashes in mid-June 2020 had resulted in the death of 20 Indian soldiers, including a Colonel.
- **What it means:**
  - India said that its envoy will not attend the opening or closing ceremonies of the Winter Olympics.
  - It means that New Delhi will boycott the Olympics at the diplomatic level although it will send an athlete for the event.
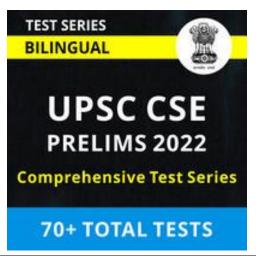
Reason for USA's boycott

- **Reason:** USA decided to boycott the Beijing winter Olympics because of China's gross human rights abuses and atrocities in Xinjiang especially against Xinjiang Uyghurs.
- **What it means:** It would mean the USA will not send "any diplomatic or official representation," while still allowing American athletes to compete.

Key Points

- **Beginning:** The first winter Olympic games were held in in Chamonix, France in 1924.
- **About:** The Winter Olympic Games is a major international multi-sport event for sports practised on snow and ice.
- **Frequency:** The Winter Olympic Games are held once every four years.
- **Governing Authority:** International Olympic Committee (IOC) is the governing body for the Winter Olympic Games.
- International Olympic Committee (IOC) is a non-governmental sports organisation based in Lausanne, Switzerland.

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India's stand on Russia-Ukraine Conflict

Background

- India said it was watching the latest developments along Ukraine's eastern border and Russia's recognition of separatist states in the Donbas region "with deep concern".
- However, India stopped short of criticising Moscow's actions, during a debate at the United Nations Security Council.

India's stand on the Russia-Ukraine Conflict Explained

- **Call for Restrained and Diplomatic Resolution:** Recently, India's Permanent Representative to the UN called for restraint and diplomatic dialogue.
- **Abstained at UNSC Meeting on Russia-Ukraine Conflict:** At the United Nations, India abstained from a procedural vote on whether to discuss the situation-a vote that Russia lost- with a U.S.-led group of 10 countries agreeing to the discussion.
  - India's vote was seen as a play to both sides, but it came after Russia-India consultations in Delhi, and was seen as a tilt towards Moscow.
- **Long-term peace and stability in the region:** India's immediate priority is de-escalation of tensions taking into account the legitimate security interests of all countries.
  - This is aimed towards securing long-term peace and stability in the region and beyond.

India's Concerns on the Russia-Ukraine Conflict Explained

- **Might lead to World War:** Any conflict- where the U.S. and its European allies are ranged against Russia will impact the whole world- economically and in terms of security.
  - India, as a partner to both Moscow and Washington will either have to take sides or be prepared to deal with unhappiness from both sides.
- **US waiver for S-400:** The Russia-Ukraine crisis comes precisely as India's purchase of the Russian S-400 missile system is under way- and New Delhi hopes for a waiver of U.S. sanctions on this.
  - Russia-Ukraine Conflict will complicate both the delivery of the system, and the possibility of a presidential waiver.
- **Growing Russia-China Relations:** Russian-Ukraine Crisis will make Moscow more dependent on friends like China, and build a regional bloc of sorts that India is not a part of.

- **Energy crisis:** In any conflict, Europe worries Russia will turn down gas and oil supplies, driving energy prices up.
  - India's huge dependence on crude oil will affect its trade balance in case of continued Russia-Ukraine Conflict.
  - Already tensions have pushed oil prices up 14% in a month past $90 and analyst say they could hit $125 a barrel if the situation is not resolved.

International Mother Language Day 2022

Context

- International Mother Language Day is being organized by Ministry of Culture in collaboration with Indira Gandhi National Centre for the Arts (IGNCA) and UNESCO New Delhi Cluster Office.
- This year International Mother Language Day is being celebrated under the aegis of Azadi Ka Amrit Mahotsav.

Key Points

- **Background:** The idea to celebrate International Mother Language Day first came from Bangladesh.
  - The general conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO) decided to celebrate February 21 as International Mother Language Day in 2000.
- **About:** International Mother Language Day is celebrated worldwide on 21st February every year to promote awareness of linguistic and cultural diversity and to promote multilingualism.
- **Organizing Authority:** UNESCO is entrusted with organizing the International Mother Language Day each year.
- **Theme:** Every year a unique theme is chosen by UNESCO to celebrate **International Mother Language Day.**

International Mother Language Day 2022: Key Points

- **International Mother Language Day 2022 Theme:** The theme of 2022 is: "Using technology for multilingual learning: Challenges and opportunities".
- **Focus Area:** International Mother Language Day 2022 focuses on potential role of technology to advance multilingual education and support the development of quality teaching and learning for all.

- **International Mother Language Day 2022 in India:**
  - It is being organized by the Ministry of Culture, Government of India.
  - India is celebrating "International Mother Language Day" with an aim to preserve, protect and promote indigenous languages in India.
  - The people and communities of India have to come together in conservation and preservation of multilingual diversity that is a part of India's cultural wealth.

International Olympic Committee (IOC) Session: India to host 2023 IOC Session

Context

- Recently, India Prime Minister expressed happiness over India being chosen as the host for 2023 International Olympic Committee Session.
- He said that it will be a memorable IOC session and will lead to positive outcomes for world sports.

International Olympic Committee (IOC) Session 2023- Key Points

- **Historic Support:** Mumbai (India) received a historic 99% of the votes in favour of its bid from the delegates participating in the process, with 75 members endorsing its candidature.
- **IOC Session 2023 Venue**: Mumbai has been officially elected as the host for the 2023 International Olympic Committee (IOC) session.
- **IOC Session 2023 Timing**: 2023 International Olympic Committee (IOC) session will be held in May or June next year.
- **Significance:**
  - International Olympic Committee (IOC) session 2023 could possibly see the election for the host country for the 2030 Winter Olympics and sports program for LA 2028 Olympic Games.
  - India will be hosting this prestigious IOC meeting for the first time since 1983.
  - It is a step forward in India's long-term goal of hosting the Olympic Games in India.
  - With a strong emphasis on youth potential, sustainability, and innovation, IOC 2023 session will be one of the first steps to showcase India's new sporting capacity

International Olympic Committee (IOC) Session- Key Points

- **About:** An IOC session is the annual meeting of the members of the IOC, comprising 101 voting members and 45 honorary members.
- **Key Mandates:** IOC Session discusses and decides on the key activities of the global Olympics movement including-
  o Adoption or amendment of the Olympic Charter,
  o The election of IOC members and office bearers and
  o Election of the host city of Olympics.

Key Points

- **International Olympic Committee (IOC):** it was **created in 1894** and is the supreme authority of the Olympic Movement.
- **About IOC:** It is a **non-governmental sports organization** based in **Lausanne, Switzerland**.
- **Mandate:** International Olympic Committee (IOC) is responsible for organizing the Summer and Winter Olympic Games.

International Summit on Plastics Recycling & Waste Management

In News

- Recently, Union Minister of State for MSME inaugurated International Summit on Plastics Recycling & Waste Management today being organized by Ministry of MSME.
- Ministry of MSME also launched two special initiatives - 'Sambhav' and 'Svavlamban' to promote entrepreneurship amongst youth, especially in aspirational Districts all across the country.

Key Points

- **About:** International Summit on Plastics Recycling & Waste Management will bring together distinguished speakers -National and International from the Government and Industry to deliberate upon challenges and opportunities in the Plastics.
- **Venue and Timing:** International Summit on Plastics Recycling & Waste Management is being held from 4th – 5th March, 2022 at New Delhi.
- **Organizing Ministry:** International Summit on Plastics Recycling & Waste Management is being organized by Ministry of MSME in association with The All-India Plastics Manufacturers' Association (AIPMA).

- **Participation:** International Summit on Plastics Recycling & Waste Management will be attended by more than 350 MSME's physically and more than 1000 MSMEs virtually from all over the country.
  o Besides, international delegates from different countries will be attending the mega summit virtually.
- **Significance:**
  o The Summit is an effective platform to bring together the stakeholders and experts to discuss the impact and possible solution for MSMEs.
  o A sustainable, plastic waste management lies on the ability to recover & recycle plastics profitably.
  o There is huge scope for formalizing this sector and vastly improving both quality and capacity of recycling.
  o It will also open new business opportunities in the Plastics industry and the Recycling Sector with a great belief in the vision of Swachh Bharat Abhiyan.

Minsk Agreements and the Russia-Ukraine Conflict

Context

- US authorities warned Russia not to invade Ukraine and urged both countries to return to Minsk agreements designed to end a separatist war by Russian speakers in eastern Ukraine.
- Minsk Agreements to end Russia-Ukraine crisis were signed in Minsk in 2014 and 2015.

Minsk I Agreement
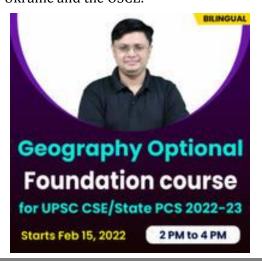
- **About:** Ukraine and the Russian-backed separatists agreed a 12-point ceasefire deal in the Belarusian capital Minsk in September 2014.
- **Key Provisions:** Five months into the Ukraine conflict had by killed more than 2,600 people when Minsk I Agreement was signed. Few key provisions are listed below-
  o Prisoner exchanges,
  o Deliveries of Humanitarian Aid and
  o Withdrawal of Heavy Weapons
- **Outcome:** The Minsk I agreement did nit last long as both sides violated different provisions of the Agreement.

Minsk II Agreement

- **About:** Minsk II Agreement is a 13points agreement signed in 2015.
- **Parties Involved:** It was signed among representatives of Russia, Ukraine, the Organisation for Security and Cooperation in Europe (OSCE) and the leaders of two pro-Russian separatist regions.
  - The leaders of France, Germany, Russia and Ukraine, gathered in Minsk at the same time, issued a declaration of support for the deal.
- **Key Provisions:** It set out military and political steps that remain unimplemented. A major blockage has been Russia's insistence that it is not a party to the conflict and therefore is not bound by its terms. The 13 points in brief are listed below-
  - An immediate and comprehensive ceasefire.
  - Withdrawal of all heavy weapons by both sides.
  - Monitoring and verification by the OSCE.
  - To start a dialogue on interim self-government for the Donetsk and Luhansk regions, in accordance with Ukrainian law, and acknowledge their special status by parliamentary resolution.
  - A pardon and amnesty for people involved in the fighting.
  - An exchange of hostages and prisoners.
  - Provision of humanitarian assistance.
  - Resumption of socio-economic ties, including pensions.
  - Restoration of full control of the state border by the government of Ukraine.
  - Withdrawal of all foreign armed formations, military equipment and mercenaries.
  - Constitutional reform in Ukraine including decentralization, with specific mention of Donetsk and Luhansk.
  - Elections in Donetsk and Luhansk on terms to be agreed with their representatives.
  - Intensifying the work of a Trilateral Contact Group comprising representatives of Russia, Ukraine and the OSCE.

Operation Ganga

Why Operation Ganga in news?

- Recently, the Prime Minister of India chaired a high-level meeting, to review the ongoing efforts under Operation Ganga to bring back Indians stranded in Ukraine.
- He said that the entire government machinery is working round the clock to ensure that all Indian nationals there are safe and secure.
- Recently, India operated its first evacuation flight under Operation Ganga and brought back 219 Indians from Romania's capital Bucharest to Mumbai.

What is Operation Ganga?

- 'Operation Ganga' is the initiative launched by the government of India to bring back Indians stranded in Ukraine.
- Under this, India has already successfully brought back more than a 1,000 of its nationals from the country.
- Under Operation Ganga, 24×7 control centres have been set up to assist in the evacuation of Indians through the border crossing points with Hungary, Poland, Romania and Slovak Republic.
- **Dedicated Twitter Handle:** 'OpGanga Helpline', a dedicated twitter handle has also been dedicated to the **Operation Ganga** mission.
  - **At** OpGanga Helpline' twitter handle, all information regarding evacuation process and advisories of embassies are shared to keep everyone up-to-date.

What is the Need for Operation Ganga?

- **Stranded Citizens:** Thousands of Indians, especially students studying medicine in Ukraine, have been stuck in the country since it closed its airspace as a security measure after Russia launched "special military operations".
- **Finding an Alternative Route:** Many students who reached Ukraine's borders with Poland and Romania have not been allowed to enter those nations.
  - The government had identified an alternate train route to help evacuate the students, from Uzhhorod in western Ukraine to Budapest, Hungary's capital city.
  - India has also decided to send four Union Ministers to Poland and Romania to oversee the evacuation.

Quad Ministerial Meeting 2022

Context

- Recently, the fourth Quad Ministerial meeting was held in Melbourne, Australia. The group of Ministers from India, Australia, Japan and USA held discussion the Quad Ministerial Meeting 2022.
- For the first time, foreign ministers of Quad member countries called for justice for the 26/11 terror attacks in Mumbai (2008) and the Pathankot airbase attack (2016).

Key Outcomes

- **Nudging Pakistan:** Joint Statement of Quad members called on all countries to ensure that territory under their control is not used to launch terror attacks and to expeditiously bring to justice the perpetrators of such attacks.
- **Free and Open Indo-Pacific Region:** The United States, Australia, Japan and India pledged at Quad Ministerial Meeting to deepen cooperation to ensure the Indo-Pacific region was free from "coercion".
  o This was a veiled comment at China's economic and military expansion.
- Quad member countries also promised to increase cooperation onCOVID-19, cyber threats and counter-terrorism.
- They also vowed to work on humanitarian relief, disaster assistance and the delivery of infrastructure to the region.
- Quad Members condemned North Korea's "destabilising ballistic missile launches" in violation of U.N. Security Council resolutions.

Quadrilateral Security Dialogue (QUAD)

- **About:** Quadrilateral Security Dialogue (Quad) is an informal Geo-strategic grouping between India, USA, Japan and Australia.
  o The "Quad" Coalition though first mooted by the Japanese Prime minister in 2007, came into reality only in 2017.
- **Quad Objective:** Quad members have come together with a shared objective to ensure and support a "free, open and prosperous" Indo-Pacific region.
  o Quad is considered as a grouping to counter rising Chinese dominance in the Indi-Pacific reason, especially in the geo-strategic and economic domain.

Russia attacks Ukraine and India's Diplomatic Dilemma

Why in news?

- Russia Ukraine war began yesterday when Russian President Vladimir Putin announced the 'military operations' in Ukraine.
- Russia Ukraine conflict has caused many strategic, political and economic consequences around the world.
- Ukraine has severed diplomatic relations with Russia after Moscow launched an all-out invasion of Ukraine by land, air and sea.

Countries Actions on the Russia Ukraine War

- **India:** Indian Prime Minister called on Russian President and urged him to stop the military conflict and solve the differences though negotiations and diplomatic channels.
  o Earlier, Ukrainian Prime Minister urged India to intervene and persuade Russia to stop the attack on the Ukraine.
  o India said the situation in Ukraine is "in danger of spiralling into a major crisis".
- **USA:** President of the USA said that USA will not send its military to fight in Ukraine against Russia. He said Washington will intervene if Putin moves into NATO countries.
- **China:** China continues its support of the Kremlin with its customs agency approving imports of wheat from all regions of Russia.
- **Europe:** Europe along with USA condemned the Russian invasion of Ukraine and imposed many sanctions on the Russia.
- **NATO Countries:** USA-led NATO is expected to meet today and decide future course of action on the Russia-Ukraine Conflict. Earlier NATO had imposed strict sanctions on the Russia.
  o The countries on NATO's eastern flank, especially the Baltic states of Lithuania, Latvia and Estonia, all have received the first batches of US military troops and equipment.

India's Diplomatic Dilemma

India's statement at the UN lacked condemnation of the Russian attack on Ukraine. Five reasons for India's diplomatic dilemma are discussed below-

- **Double Standards:** The West views India's statement as condoning Russia's actions and applying double standards while it raises the issue of "territorial integrity and sovereignty" when it comes to China.
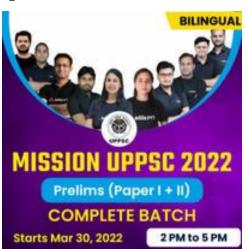
- **India's strategic ties with Russia**: India's dependence on Russia for military supplies — 60 to 70 per cent of India's military hardware is of Russian-origin.
  - This is extremely crucial at a time when India has an ongoing border standoff with China.
- **India at UN Meeting: India said** the escalation of tension along the border of Ukraine with the Russian Federation is a matter of deep concern.
  - This is the closest New Delhi has gone so far to caution Putin's Russia to not undertake risky behaviour that may escalate.
  - It is euphemism and diplomatese for India telling Russia: don't do it.
- **Safety of Indian Citizens:** India's worry remains its 20,000 Indian students and nationals, many of them who live close to the Ukraine-Russia border.
  - Many of these students are enrolled in the medical colleges of Ukraine.
  - India has also emphasised that it was concerned about the safety and security of civilians.
- **Peaceful Negotiation through Diplomatic Channels:** India has asked "all sides" to intensify diplomatic efforts to reach for an amicable solution at the earliest.
  - This is again a time-tested line of India's, where it doesn't blame one side or the other for not being cooperative.
  - West has blamed Russia for starting the tension, and has put the ball in Putin's court, whereas the Russian President has blamed NATO's eastward expansion as a threat.

Conclusion

- And, as a new conflict in the 21st century breaks out in the form of Russia Ukraine war, India has a tough strategic choice to make.

UNGA Meet on Russia-Ukraine War

Context

- UNGA Meet on Russia-Ukraine War was recently held in which UN General secretary called for an immediate cessation of violence and withdrawal of Russia's military from Ukrainian territory.
- He said that we are facing a tragedy for Ukraine, but also a major regional crisis with potentially disastrous implications for us all.
- The resolution on Ukraine, which is being heard at the Eleventh Emergency Special session of the UNGA, was mandated by the UN Security Council (UNSC).
  - Earlier, a U.S.-led effort to criticise Russia at the UNSC in resolution 8979 was vetoed by the Russian representative.

Importance of UNGA Meeting on Ukraine Russia War

- The UNGA resolution is expected to be voted sometime on Tuesday, after over 100 listed speakers, including India, make their statements.
- If passed, the UNGA would-
  - "Deplore in the strongest terms" Russian "aggression" on Ukraine,
  - Demand a complete withdrawal of troops, and
  - A reversal of the Russian decision to recognise the enclaves of Donetsk and Luhansk.
- UNGA also demands an immediate return to talks, and for all parties to allow and facilitate "rapid, safe and unhindered" access for all civilians to humanitarian assistance.

Stand of Various Countries on Russia-Ukraine War

- **Russia:** It threatened to use nuclear weapon if its demands are not met. Russia also decided to place Russian nuclear weapons on a more elevated alert.
- **Belarus:** Belarus President Lukashenko decided to reverse his country's non-nuclear status in the background of present Russia Ukraine War.
- **Ukraine:** Ukraine's Ambassador to the UN called Russia's actions and nuclear announcement "madness", and warned that "if Ukraine does not survive, the UN will not survive".
- **Russia:** Russian Ambassador to the UN alleged that it was Ukraine and not Russia that had begun "these hostilities".
  - He claimed that the Ukrainian government had planted the "roots of the crisis" and had not implemented the 2015 Minsk agreement.
  - Earlier, Russia threatened to use nuclear weapon if its demands are not met. Russia also decided to place Russian nuclear weapons on a more elevated alert.

- **India:** India is widely expected to also abstain from the resolution at the UNGA, which is a considerably tougher and lengthier version of UNSC 8979.
  - However, India may be more inclined to support another resolution due to be discussed at the UNSC on ensuring humanitarian access for civilians and refugees.

World Food Programme: India to Distribute Wheat to Afghanistan

Context
- India signed a Memorandum of Undertaking (MoU) with the United Nation's World Food Programme (WFP) for the distribution of **50,000 MT of wheat** that it has committed to sending Afghanistan as part of a humanitarian assistance.

Key points
- According to the MoU, the wheat will be taken **through Pakistan to the Afghan border** crossing and handed over to WFP officials in Kandahar beginning February 22 (after Punjab elections).
- The wheat will be divided into **five batches of 10,000 MT**, to be distributed across the country on approximately 200 trucks that are run by WFP.

Reasons for delay
- Pakistan's Prime Minister Imran Khan had **cleared an Indian proposal** to use the land route in November 2021 and the **Taliban regime had welcomed the offer**, however the consignment could not move forward due to Pakistani officials who were adamant that **Indian trucks would not be allowed** to ply and only cleared Afghan trucks will be allowed to carry the wheat.
- More recently, the process has been delayed due to **arrangements for Punjab elections** in India, which were postponed from February 16 to February 20.

India Pakistan trade
- Pakistan had **shut down all trade with India** to protest the government's changes in Jammu and Kashmir and Article 370 in August 2019.
- The route, however, could be **opened only as an exception**.
- Exemptions: The Pakistan Government had allowed Afghan exports to India to pass through the Wagah border, making an exception also for **medicines from India during the pandemic**.
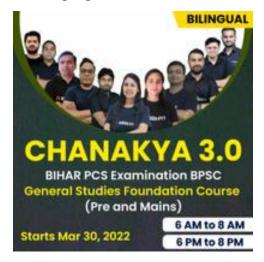
- Also, India has also flown several consignments of medicines and medical equipment to hospitals in Afghanistan on board flights.

About WFP
- The World Food Programme is the **food-assistance branch of the United Nations**.
- It was founded by the Food and Agricultural Organisations (**FAO**) and the United Nations General Assembly (**UNGA**) in **1961**.
- It is the **world's largest humanitarian organization**, saving lives in emergencies and using food assistance to build a pathway to peace, stability and prosperity for people recovering from conflict, disasters and the impact of climate change.
- **No institutional finance**: WFP is completely funded through the generous voluntary contributions of donor governments, institutions, corporations and individuals.
- **UN WFP headquarters**: Rome, Italy.
- WFP has been awarded with the **Noble Peace Prize 2020** for its efforts to combat hunger, bettering conditions for peace in conflict-affected areas and preventing the use of hunger as a weapon of war and conflict.

WFP Strategic Plan (2017-2021)
- The Strategic Plan (2017–2021) aligns WFP with the 2030 Agenda, focusing on ending hunger and contributing to revitalized global partnerships to implement the Sustainable Development Goals (SDGs).
- It sets out WFP's vision to lift the **most vulnerable and marginalized people** out of hunger through all of us working together.

Economy

Union Budget 2022-23: A Bold Effort at Public Investment-led Growth

Context
- Recently, the Union Budget tabled in Parliament saying that India's domestic output (GDP) is likely to grow 9.2% this year (2021-22) over last year- the highest among the world's large economies.
- However, India's output contraction in the previous year (2020-21) was among the worst in the world.

Budgetary Provisions
- Union Budget 2022-23 seeks to boost public investment by 35.4% at current prices over last year to raise its share in GDP to 2.9% from 2.2% last year.
- With grant-in-aid for state investments, the Union Budget hopes to increase public investment share to over 4% of GDP.
- The Union Budget hopes to trigger a virtuous investment-led output and employment growth.
  - This will happen through the "crowding-in" effect of public investment on private investment.
- The Union Budget 2022-23 aims to mobilise resources to finance the investment as it seeks to reduce the fiscal deficit ratio, as per the schedule laid out in the last Budget.

Challenges to Indian Economy
- **COVID Virus:** adverse effect of the ongoing wave of the Omicron virus may negatively impact the rise in GDP (estimated to be 9.1% this year by Economic Survey).
- **No growth in Per Capita Income:** India lost two years of output expansion. In other words, per capita income today is lower than it was two years ago.
- **Decline in Private Consumption:** the share of private consumption declined by three percentage points of GDP between FY2020 and FY2022.
  - The Government stepped up its expenditure to mitigate the decline, but only modestly; hence, the marginal output expansion.
- **Issue of Revenue Realization:** The critical question is whether additional tax and non-tax revenue (that is disinvestment proceeds) will be sufficient to finance the investment plan.
  - public investment has picked up in the current fiscal, by barely 0.2% of GDP.

- **Challenges in meeting the proposed investment targets:**
  - Threat of higher (imported) inflation (on account of rising international oil prices) and
  - Rising interest rates (on account of the US Federal Reserve's decision).
- **Rising Unemployment:** Rampant loss of employment is probably one of the key causes of the decline (of three percentage points of GDP) in private consumption.
- **Industrial Slowdown:** The manufacturing sector's share in GDP has been stagnating at around 15% of GDP for quite a while.
  - The annual industrial growth rate has sharply slowed down from 13.1% in 2015-16 to minus 7.2% in 2020-21.
  - Other example, of the industrial slowdown is the fall in two-wheeler sales. As per news reports, it fell to 11.77 million units in 2021, below 11.90 million units sold in 2014.
  - Industrial slowdown leads to contraction in employment, mostly in the informal or unorganised sector.

Way Forward
- **Ensuring Revenue realization**: The realisation of revenue for the proposed public investments would crucially depend on-
  - Tax revenue realisations,
  - Disinvestment proceeds,
  - Sale of rail and road assets and
  - Government's ability to raise resources from the market, without raising interest rates for the private sector.
- **Employment:** enhanced allocation for the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and initiating a similar scheme for meeting urban unemployment.
  - However, the Government has slashed the allocation for MGNREGA by 25% over last year.
- **Reducing Imports:** If a substantial share of proposed public investment "leaks" out as

Conclusion
- Without fully committed funds for capital investment, the success of the ambitious effort to fund proposed public investment remains questionable.

Corporate Social Responsibility: New CSR Mandate for Corporate India

Context
- Recently, Government of India has mandated corporate India to **furnish a comprehensive report** on their corporate social responsibility (CSR) activities.

Key points
- The **CSR-2 form will have to be submitted** to the Registrar of Companies for the preceding financial year (2020-21) and onwards.
- For the information related to FY 2020-21, the CSR-2 has to be submitted by the end of March 2022.

Reason for CSR-2
- India Inc's, which comprise of 1619 companies, **CSR spend for FY 2020-21 fell sharply** than those spent in FY19 and in FY20.

Provisions under CSR-2
- Form CSR-2 requires certain companies to report on matters such as the **constitution of its CSR committee,** its meetings, whether or not the company has disclosed on its website details about its CSR committee, CSR policy, and approved CSR projects.
- Also, the company is required to confirm whether an **impact assessment of CSR** projects has been carried out in pursuance of the Companies (CSR Policy) Rules, 2014.
- Under the report, the company is also required to submit detailed information around its investment in CSR Projects and the **quantum of funds that has remained unspent**.

Benefits
- The move is expected to give the government a **comprehensive picture** of the CSR funds spent and activities carried out.
- It would also help the Ministry of Corporate Affairs (MCA) to **undertake data mining** and analytics so that improved policies could be rolled out on this front.

Issues
- Some experts have commended that it would end up **increasing compliance burden** of corporates.
- Some of the disclosures now mandated under CSR-2 are **already being disclosed** under the main directors' report forming part of the annual report.

About CSR in India
- According to The **Companies Act 2013**, companies with any of the **following three condition** (during the immediately **preceding three years**) has to **spend 2 per cent of the average** net profit on CSR activities.
  - net worth of ₹500 crore of more, or
  - turnover of ₹1,000 crore or more or
  - a net profit of ₹5 crore or more

Draft Integrated Plant Nutrition Management Bill 2022

Context
- Recently, the Union Government has come up with Integrated Plant Nutrition Management Bill 2022 that empowers it to **fix maximum selling price of fertilizers** and control its quality and distribution.

Key proposals of the Bill
- **Integrated Plant Nutrition Management Authority of India**: The Bill seeks to establish the authority to regulate the manner of registration for manufacturers of fertilisers, set out technical standards with respect to the quality of fertilisers and fertiliser products, and promote the sustainable use and development of innovative fertilisers.
- **Use of balanced fertilisers**: The Bill seeks to promote the development and sustainable use of balanced fertilisers, including bio-fertilisers, bio-stimulates, nano- fertilisers and organic fertilisers to sustain India's food and nutritional security without causing adverse harm to the quality of the environment and health of the soil.
- **Maximum selling price**: If passed, the Act will empower the central government to fix the maximum selling price of fertilisers and control its quality as well as distribution.
- **Simplify procedure**: The Bill will simplify the process for the manufacture, production, distribution and price management of fertilisers in India, which will in turn improve the ease of doing business as well as encourage the promotion of research and innovation of high-yielding and climate smart systems of agriculture.
- **Power of the Central Government**: The Bill also proposes to empower the Central government to fix different prices or rates for fertilisers having different periods of storage or for different areas or for different classes of consumers.
  - The Central Government can also prescribe the manner in which fertilisers are to be moved from one state to another.

- **Restrictions**: No person can manufacture, sell, import for sale, or market without obtaining the appropriate registration from the authority.
  o Moreover, no dealer, manufacturer importer or fertiliser marketing entity shall sell or offer for sale any fertiliser at a price exceeding the maximum price.

Fertiliser industry in India
- The fertilizers industry is the **second most important** industry in India after iron and steel.
- The Indian fertilizers market is estimated to record a CAGR (Compound Annual Growth Rate) of 11.9% during the forecast period (2021-2026).
- The success of the agricultural sector in India, like higher production of food grains, is majorly contributed to the fertilizer industry.
- India is the **second biggest consumer of fertilizer** in the world next only to China.
- India also ranks **2nd in the production of nitrogenous fertilizers** and 3rd in phosphatic fertilizers.
- The consumption of fertilizer is so high that even after producing around 32.4 million tonnes of fertilizer in the year 2012-13, the total availability was short of demand and **was met through imports.**
- The regions with high use of fertilizers are now known as '**granaries of India.'**

Economic Survey 2021-22

Context
- Recently, the Economic Survey 2021-22 was tabled by Finance Minister in the Parliament Budget Session 2022.
- Economic Survey 2021-22 expects the GDP to grow by 9.2% this year and 8% to 8.5% in 2022-23.
  o Economic Survey also expressed concerns about the implications of hardening inflation and energy prices.
- When compared to pre-pandemic levels, recovery is most significant in exports followed by government consumption and gross fixed capital formation

Key Points
- **Economic Growth:** Economic Survey 2021-22 expects the GDP to grow by 9.2% this year and 8% to 8.5% in 2022-23. This economic growth is based on the following assumptions-
  o There will be no further debilitating pandemic related economic disruption,
  o Monsoon will be normal,
  o Withdrawal of global liquidity by major central banks will be broadly orderly,

o Oil prices will be in the range of US$70-$75/bbl, and
o Global supply chain disruptions will steadily ease over the course of the year
- **Agriculture sector:** Economic Survey 2021-22 says that the agriculture is least hit by pandemic, sector to grow by 3.9% in 2021-22 after growing 3.6% the previous year.
  o Crop diversification towards oilseeds, pulses and horticulture needs to be given priority.
- **Industrial Sector:** Industrial sector did go through a contraction and now it is about 4.1 per cent above pre-pandemic levels.
- **Service Sector:** The segment of service sector that includes tourism, travel, and hotels is still 8.5 per cent below where it was before the pandemic. It is a sector that is still impacted.
- **Drivers of Economic growth:** Economic Survey 2022 says that the Growth will be supported by-
  o Widespread vaccine coverage,
  o Gains from supply-side reforms and easing of regulations,
  o Robust export growth, and
  o Availability of fiscal space to ramp up capital spending.
- **Consumption:** Government consumption has recovered well but the private consumption and segments such as travel, trade and hotels were yet to fully recover.
  o The stop-start nature of repeated pandemic waves makes it especially difficult for these sub-sectors to gather momentum.
- **Investment:** Economic survey 2022 says that the country's investment to GDP ratio had hit 29.6% in 2021-22, the highest level in seven years.
  o This capital formation attributed is to the government's policy thrust on quickening the 'virtuous cycle of growth via capex and infrastructure spending'.
  o The year ahead is well poised for a pick-up in private sector investment with the financial system in a good position to provide support to the revival of the economy.
- **Risks to economic growth:** Economic Survey acknowledges following risks to global economy-
  o **New COVID-19 variant**: Such as Omicron which is sweeping across the world.
  o Shortage of inputs such as semiconductors
  o **Inflation:** Economic Survey acknowledges the inflation jumping up in most countries, and
  o **Cycle of liquidity withdrawal** being initiated by major central banks.

- **Start-up Capital:** According to the Economic Survey 2021-22, Delhi has replaced Bengaluru as the startup capital of India as the national capital added over 5,000 startups between April 2019 and December 2021.
  - With a total of 11,308 startups, Maharashtra has the highest number of recognised startups in the country.
- **MGNAREGA Job demand:** An analysis of the latest data on demand for work under MGNREGS suggests the following trends in the rural labour market-
  - MGNREGS employment peaked during the nation-wide lockdown in 2020
  - The demand for MGNREGS work has stabilised after the second Covid wave;
  - Aggregate MGNREGS employment is still higher than pre-pandemic level.
- **Rise in Tax and Non-tax Revenue:** Economic survey 2021-22 reports that there has been a sharp increase in both tax as well as non-tax revenue.
- **Current Account:** Economic Survey 2022 pointed out that a strong recovery was seen in imports, rendering India's net exports negative for the first half of the year, from a surplus in 2020-21.

India has thus recorded a modest current account deficit of 0.2% in the first half, but robust capital flows in the form of continued inflow of foreign investment were sufficient to finance it.

Chief Economic Advisor

Context
- Recently, the Union Government announced the appointment of Dr. V Anantha Nageswaran as its Chief Economic Advisor (CEA).
- Economic Survey is presented by the Chief Economic Advisor (CEA) each year on the eve of the Union Budget.

Key details about Dr. V Anantha Nageswaran
- **About:** Dr. V Anantha Nageswaran has been an author, teacher and consultant and has taught at several business schools and institutes of management in India and in Singapore
- **Education:** He holds a Post-Graduate Diploma in Management from the Indian Institute of Management, Ahmedabad, and a doctoral degree from the University of Massachusetts in Amherst.

- **Work Experience:** Nageswaran was the Dean of the IFMR Graduate School of Business and a Visiting Professor of Economics at Krea University.
  - He has also been a part-time member of the Economic Advisory Council to the Prime Minister from 2019 to 2021.
- **Literary Contributions:** Nageswaran has authored several books. He also co-authored Can India grow? and The Rise of Finance: Causes, Consequences and Cures.

Key Points
- **About:** Chief Economic Advisor (CEA) is a post government of India, responsible for advising the Government of India on matters related to finance, commerce, trade, economy.
- **Institutional Structure: The CEA** heads the Economic Division under the Department of Economic Affairs (DEA), Ministry of Finance.
  - The post of CEA is equivalent to Secretary in India.
  - Chief Economic Advisor (CEA) reports directly to the Union Minister of Finance.
- **Tenure:** CEA has no security of tenure.
- **Appointing Authority:** Chief Economic Advisor (CEA) is appointed by the Appointment Committee headed by the Prime Minister of India.
- **Nature of Recommendations:** Decisions of the Chief Economic Advisor (CEA) is only recommendatory in nature and not binding on the government.
- **Legal Status:** The Office of Chief Economic Advisor (CEA) is neither constitutional nor statutory.

Roles and Responsibilities
- CEA is responsible for bringing the Economic Survey each year which is basically an economic report card of the Union Government.
- CEA is also the ex-cadre controlling authority of the Indian Economic Services (IES).
- Other key responsibilities include-
  - Economic policy inputs on industrial development.
  - Rendering advice relating to formulation of Industrial Policy, Foreign Trade Policy with respect to industrial sector in general with thrust on manufacturing, issues relating to bilateral and multilateral trade, as well as taxes and duties related to industry, including but not restricted to safeguard and anti-dumping duties.
  - Analysis of trends of industrial production and growth.

o   Examination of multilateral and bilateral issues and processing Policy Notes with economic implications referred to the Office.
o   Planning and Gender Budgeting on behalf of the Department of Industrial Policy and Promotion.

Fair and Remunerative Prices

Context
•   Recently, **Maharashtra Government** has issued a resolution, which will allow sugar mills to pay the basic fair and remunerative price (FRP) in two tranches. The initiative has got **mixed reforms** from the concerned stakeholders.

Key points
•   Though the sugar industry has welcomed the move, farmers have opposed it.
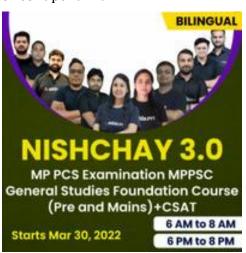
About FRP
•   FRP is the price declared by the government, which mills are **legally bound** to pay to farmers for the cane procured from them.
•   The cane price announced by the Central Government is decided on the basis of the recommendations of the **Commission for Agricultural Costs and Prices** (CACP) in consultation with the State Governments and after taking feedback from associations of sugar industry.

Payment under FRP
•   The payment of FRP is governed by The **Sugarcane Control order, 1966**.
•   The order mandates payment **within 14 days** of the date of delivery of the cane.
•   Mills, however, have the option of signing an agreement with farmers, which would allow them to **pay the FRP in instalments**.
•   Any delay in payment can attract an **interest up to 15 per cent** per annum.

Proposed changes
•   The mills will now have to pay the **FRP in two installments**.
•   Instead of relying on the recovery of the last season, they would have to pay as per the **recovery of the current season**.

Significance
•   Sugar mills paid farmers on the basis of the sugar recovery of the previous season.
o   **Sugar recovery** is the ratio between sugar produced versus cane crushed, expressed as a percentage.
o   The higher the recovery, the higher is the FRP, and higher is the sugar produced.
•   Thus, mills in the present season (2021-22) would pay as per the recovery of the 2020-21 season.
•   The proposed changes make the payment system more systematic.
•   **Sugar mills raise money by 'pledging'** their sugar stock, and use the realisations from sales to clear their debts.
•   So, in a year when sales are lean, or in a year of bumper production, mills face **severe liquidity crises**, and fail to pay both their creditors as well as the farmers.
•   This ultimately leads them to financial insolvency, which can end with the mill being sold off or rented out.
•   Payment of the basic FRP in instalments has been one of the **long-standing demands** of the industry. It has been argued that it would ease the liquidity burden on them.

Financial Stability and Development Council

Context
•   Recently, the 25th meeting of the Financial Stability and Development Council (FSDC) was held under the chairpersonship of Union Finance Minister.

Key points
•   The Council deliberated on the various mandates of the FSDC and major macro-financial challenges arising in view of global and domestic developments.
•   The Council noted that Government and **all regulators need to maintain constant vigil** on the financial conditions and functioning of important financial institutions, especially considering that it could expose financial vulnerabilities in the medium and long-term.

- The Council discussed measures required for **further development of the financial sector** and to achieve an inclusive economic growth with macroeconomic stability.

What is FSDC?

- FSDC is a **non-statutory apex level** forum to strengthen and institutionalize the mechanism for maintaining financial stability, enhancing inter-regulatory coordination and promoting financial sector development in the country.
- It has been established in **2010 under the Ministry of Finance**.
- It has been set up on the **recommendation of Raghuram Rajan Committee** (2008) on financial sector reform, in the backdrop of the **global economic crisis of 2008**.

FSDC council's composition

- **FSDC council's chairman:** Union Finance Minister
- FSDC members include
  o the heads of financial sector Regulators (RBI, SEBI, PFRDA, IRDA & FMC)
  o Finance Secretary and/or Secretary, Department of Economic Affairs, Secretary, Department of Financial Services, and Chief Economic Adviser.

FSDC's functions

The various responsibilities of FSDC are listed below-

- The council focusses on **financial literacy and financial inclusion** in the country.
- FSDC aims to **strengthen and institutionalize** the mechanism of financial stability and development.
- It also **monitors macro-prudential** supervision of the economy.
- The council **assess the functioning** of the large financial conglomerates.
- It also **addresses intra regulatory coordination** issues.

FSDC's Sub-Committee

- The FSDC Sub-committee has been set up under the **chairmanship of Governor**, RBI.
- It meets more often than the full Council.
- All the members of the FSDC are also the members of the Sub-committee.
- Additionally, **all four Deputy Governors** of the RBI and Additional Secretary, DEA, in charge of FSDC, are also members of the Sub Committee.

- As a result of the deliberations of the Sub-Committee of the FSDC, the **following technical groups/working groups** have been set up
  o Technical Group on Financial Inclusion and Financial Literacy.
  o Inter Regulatory Technical Group.
  o Inter regulatory forum for monitoring financial conglomerates (IRF-FC)
  o Early Warning Group
  o Working Group on resolution regime for financial institutions
  o Macro Financial and Monitoring Group.

Fintech Open Summit

Context

- Recently, **NITI Aayog** has organized a three-week-long 'Fintech Open Summit' to showcase the importance of the fintech industry in India.

Key points

- The Fintech Open Summit has been conducted in collaboration with PhonePe, AWS and EY.
- Fintech Open is a **first of its kind initiative**, which will bring together regulators, fintech professionals and enthusiasts, industry leaders, the start-up community, and developers to collaborate, exchange ideas and innovate.

Objective of Fintech Open Summit

- Encourage an open ecosystem across the fintech industry
- Foster innovation and growth
- Ensure financial inclusion and leverage new models like Account Aggregator to unleash the next wave of fintech innovation.

About Open platform

- An open platform is created **using public investment**, wherein numerous private entrepreneurs, start-ups, and developers can join to create new solutions. Example: Cowin, UPI etc.
- 270 banks are connected with the UPI and many entrepreneurs and start-ups have provided solutions that have helped increase the country's fintech adoption rate—which is the **highest globally at 87%.**

What is fintech?

- FinTech is generally described as an industry that **uses technology to make financial systems** and the delivery of financial services more efficient.
- FinTech is broadly used to describe emerging technological innovations in the financial services sector, with ever increasing reliance on information technology.

Fintech services importance

- **Increasing digitalisation**: India is witnessing increasing digitization with people getting greater and easier access to financial services.
- **Provide better security**: The shift in consumers' financial behaviour—from cash to e-wallets and UPI has done away the issues associated with cash transactions.
- **More equitable:** The expansion of digital payments is an important pivot for creating a more equitable, prosperous, and financially inclusive India.
- **Accelerated financial inclusion**: The fintech industry is playing a critical role in facilitating financial inclusion across the country.

Fintech industry in India

- In India, FinTechs and digital players could function as the **fourth segment** of the Indian financial system, alongside large banks, mid-sized banks including niche banks, small finance banks, regional rural banks and cooperative banks.
- It has the potential to fundamentally **transform the financial landscape** where consumers will be able to choose from broader set of alternatives at competitive prices, and financial institutions could improve efficiency through lower costs.
- India has emerged as the **fastest growing FinTech market** and the third largest FinTech ecosystem in the world.
- The rapid and transformational changes in financial services brought on by FinTechs need to be continuously **monitored and evaluated**.
- Regulators need to be **creative, nimble and tech savvy** with their approach.

Indian Footwear and Leather Development Programme

Context

- Recently, Ministry of Commerce & Industry has approved the continuation of Indian Footwear and Leather Development Programme (IFLDP) **till 2026**, or till further review.

Key points

- Indian Footwear and Leather Development Programme (IFLDP), **erstwhile IFLADP** (Indian Footwear Leather and Accessories Development Programme), has been approved for continuation from 2021-22 with an approved **financial outlay of Rs. 1700 crore**.

- Indian Footwear and Leather Development Programme (IFLDP) aims at development of infrastructure for the leather sector, address environmental concerns specific to the leather sector, facilitate additional investments, employment generation and increase in production.

IFLDP sub schemes

The following sub-schemes have been approved under IFLDP during 2021-26:

- **Sustainable Technology and Environmental Promotion** (proposed outlay Rs.500 crore):- Special Purpose Vehicle CETP would be provided assistance @ 80% of the total project cost for Northeastern Areas and @ 70% of the total project cost for other with a limit of Rs.200 crore.
- **Integrated Development of Leather Sector** (IDLS) (proposed outlay Rs.500 crore):- Assistance would be provided to the sectoral units for their modernization/capacity expansion/technology up-gradation on or after 01.01.2020 @30% to MSME units and 20% to other units.
- **Establishment of Institutional Facilities** (proposed outlay Rs.200 crore):- Setting up of International Testing Centre, Sports Complex, replacement of conventional light fixtures with LED lights and construction of girls hostel in FDDI campuses are planned.
- **Mega Leather Footwear and Accessories Cluster Development** (MLFACD) (proposed outlay Rs.300 crore):- The sub-scheme aims at world-class infrastructure and to integrate the production chain in a manner that caters to the business needs of the leather and footwear industry so as to cater to the domestic market and exports.
- **Brand Promotion of Indian Brands in Leather and Footwear Sector** (proposed outlay Rs.100 crore):- The GoI assistance is proposed to be 50% of total project cost subject to limit of Rs 10 crore for each brand in next three year to promote 10 Indian brands in the International Market in 3 years.
- **Development of Design Studios** (proposed outlay Rs.100 crore):
  o This is a **new sub-scheme**. Assistance would be provided to develop 10 Indian design studios.
  o The studios will promote marketing/export linkages, facilitates buyer- seller meets, display designs to international buyers and work as interface for the trade fairs.
  o Design Studios will be kind of 'one-stop- shop' providing a wide range of services: design, technical support, quality control etc.

Impact of erstwhile IFLADP

- The programme has a direct benefit towards quality **employment generation** especially for **women, skill development, decent work**, making the industry more environment friendly and prompting sustainable production system.
- The leather clusters located in different parts of the country have accrued benefit in terms of reduction of **poverty, gender equality, sector specific skill/education**, etc., thus touching many of the Sustainable Development Goals (SDGs).
- NDPs (**National Development Programme**) such as economic growth, reduction in poverty, generation of employment, quality education/skills, gender equality, good health and well-being, infrastructure development, affordable and clean energy and other environmental benefits are well-served by the IFLAD Programme.

Kisan Drones

Context

- Recently, our Prime Minister has flagged off **100 kisan drones** in different parts of the country for spraying pesticides and other farm materials.

Key points

- Prime Minister expressed confidence that India's rising capability in the drone sector will give the world a new leadership.
- He also said that the number of drones will soon be in thousands from over 200 now, leading to the generation of employment opportunities on a massive scale.
- The Prime Minister has also said that the government has already undertaken several reforms and policy measures to facilitate the rise of drone sector in India.

Kisan drone benefits

- **Boost agricultural sector**: Kisan Drones will be used to boost the agricultural sector in the country, by using kisan drones for crop assessment, digitization of land records and spraying of insecticides and nutrients.
- **Transportation of food produce**: Farmers can use drones to transport their produce like fruits, vegetables and flowers to markets in a minimal time, hence boosting their income.
- **Aid new-age farming**: Kisan drones will provide modern farming facilities in the 21st century, and will prove to be a milestone in the development of the drone sector in India.

- **Chemical-free farming**: Kisan drones also aims to promote chemical-free national farming.
  - In the budget 2022, the finance minister said that chemical-free natural farming will be promoted throughout the country, with focus on farmers' lands in 5-kilometre-wide corridors along the river Ganga in the first stage.
- **Post-production benefits**: Kisan drones will be supplied directly to the market with minimal damage, consuming lesser time, resulting in more profits to farmers and fishermen.
- **Increase employment**: 'Kisan drones' are the beginning of a new revolution, and will generate fresh employment and new opportunities for the youth.

Government steps

- Drones have been used in the '**Swamitva Yojana'** aimed at creating a record of land ownership in villages, and transporting medicines and vaccines.
- The Ministry of Civil Aviation (MoCA), in early 2022 notified a **drone certification scheme** to ensure minimum safety and quality requirements as it will boost indigenous manufacturing.
- In 2021, government has formulated a PLI scheme for drones and drone components with an allocation of Rs 120 crore spread over three financial years.
- The government has also made an ambitious target of making India the drone hub of the world by 2030.
- Government amended the guidelines of Sub-Mission on Agricultural Mechanization (SMAM) which envisages granting 100 per cent of the cost of agriculture drone or Rs 10 lakhs, as a grant for the purchase of drones by the farm machinery training and testing institutes, ICAR institutes, Krishi Vigyan Kendras and state agriculture universities.
- In 2021, the government came up with **liberalised Drone Rules** to create a 'digital sky platform" which is a business-friendly single-window online system, with minimum human interference, where most of the permissions will be self-generated.

National Strategy on Additive Manufacturing

Context

- Recently, Ministry of Electronics & IT (MeitY) has released a "National Strategy on Additive Manufacturing" to cater **next-generation digital manufacturing** and mitigate immediate disabilities of local industries.

Key points

- The national strategy would postulate the tenets of '**Make in India' and 'Atmanirbhar Bharat Abhiyan'** that advocate self-reliance through technological transformation of the production paradigm.
- The aim will be realized through a dedicated **National Centre** with the participation of all stakeholders.
- This centre will act as an **aggregator of knowledge** and resources to accelerate technology adoption and advancement.
- The sector specific Centres will also be created to **infuse indigenous AM technology** to offer Indian manufactures an edge over global peers.
- Manufacturing sector is an important part of the vision for $1 trillion Digital Economy.

3D manufacturing policy: Objectives

- The policy aims to increase India's share in global additive manufacturing to **5 per cent by 2025.**
- As per the **National Strategy for Additive Manufacturing, by 2025,** India will aim to achieve certain targets such as 50 India specific technologies, 100 new startups for additive manufacturing, 500 new products and 10 existing & new manufacturing sectors.
- The policy hopes that these new startups and opportunities will give jobs to at least 1 lakh new skilled workers over the next three years.
- MeitY hopes that the policy could likely add **$ 1 billion to the gross domestic product** by that time.
- It will create intellectual property & export opportunities in the country.

Benefits

- The strategy document has been formulated to promote all sub-sectors, such as machines, materials, software and design, within the Additive Manufacturing.
- The strategy will further accelerate the adoption of untapped potential business opportunities.
- It will also strengthen the execution of recommendations laid in the National Electronics Policy, 2019.

What is additive manufacturing?

- **3D printing or additive manufacturing** is a new generation technology which uses computer-aided design to make prototypes or working models of objects by laying down successive layers of materials such as plastic, resin, thermoplastic, metal, fiber or ceramic.
- With the help of software, the model to be printed is first developed by the computer, which then gives instructions to the 3D printer.

- Additive Manufacturing is next generation of digital manufacturing that allows the intersection of Computing Electronics, Imaging & the emerging areas of Artificial Intelligence and pattern recognition.

Additive manufacturing in India

- Additive Manufacturing (AM) has immense potential to **revolutionize India's manufacturing** and industrial production landscape through digital processes, communication, imaging, architecture and engineering.
- With the release of the 3D manufacturing policy, **Innovation and R&D ecosystem** will be encouraged in PPP mode to transform existing research knowledgebase of India.
- The strategy will help develop additive manufacturing products for vast domestic and international market in various sectors including electronics, photonics, medical device, agro and food processing etc.

NBFC to Implement Core Financial Services Solution by 2025

Context

- Recently, Reserve Bank of India has asked certain class of Non-Banking Financial Companies (NBFC) to mandatorily implement **'Core Financial Services Solution** (CFSS)' by 2025 in order to provide seamless customer interface as well as have a centralised data base.

Key points

- RBI decided that NBFCs - **Middle Layer** and NBFCs - **Upper Layer** with 10 and more 'fixed point service delivery units' as on October 1, 2022 shall be mandatorily required to implement CFSS.
- As per the timeline prescribed by the RBI, the two categories of NBFCs have to implement CFSS on or **before September 30, 2025**.
- While NBFC - Upper Layer shall ensure that the CFSS is implemented at least in 70 per cent of 'Fixed point service delivery units', in the case of NBFC - Base Layer and NBFC - Middle and Upper Layers with fewer than 10 'Fixed point service delivery units', **implementation of CFSS is not mandatory.**

Understanding the basics

- Know about NBFC here.
- The Middle Layer consists of **all deposit taking NBFCs (NBFC-Ds),** irrespective of asset size; non-deposit taking NBFCs with asset size of Rs 1,000 crore and above.
- The Upper Layer consists of those NBFCs that are **specifically identified by RBI** as warranting enhanced regulatory requirement based on a set of parameters and scoring methodology.
  o The top ten eligible NBFCs in terms of their asset size shall always reside in the upper layer.
- A **'fixed point service delivery unit'** is a place of operation from where the business activity of non-banking financial intermediation is carried out by a NBFC and which is manned either by its own staff or outsourced agents.
- **Core Financial Services Solution**: Core Financial Services Solution (CFSS) is akin to the Core Banking Solution (CBS) adopted by banks.
  o The CFSS will provide for seamless customer interface in digital offerings and transactions relating to products and services with anywhere / anytime facility,
  o CFSS also enable integration of NBFCs' functions, besides providing centralised database and accounting records.

<div style="background:#1F6FC0;color:#fff;padding:4px;text-align:center">PM Kisan Sampada Yojana Extended</div>

Context

- Recently, Ministry of Food Processing Industries has extended the Pradhan Mantri Kisan Sampada Yojana (PMKSY)' **till March 2026.**

Key points

- The Ministry said that PMKSY has been extended for a period of **2021-22 to 2025-26** with an allocation of **Rs 4,600 crore**.
- PMKSY is a comprehensive package which will lead to creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet.

About PMKSY

- A **Central sector scheme** named SAMPADA (Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters) was approved by the Union cabinet in May 2017 for the period of 2016-20 coterminous with the **14th Finance Commission** cycle.

- The financial allocation of PMKSY was Rs. **6,000 crores**.
- The scheme was renamed as PMKSY in August 2017.
- PMKSY objective: The objective of PMKSY is to supplement agriculture, modernize processing and decrease Agri-Waste.

PMKSY sub schemes

Mega Food Parks
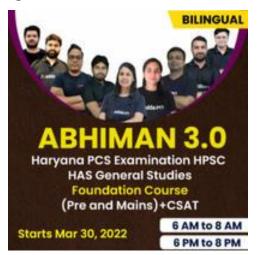
- The Scheme of Mega Food Park aims at providing a mechanism to link agricultural production to the market by bringing together farmers, processors, and retailers.
- The objective of mega food parks is to ensure maximizing value addition, minimizing wastage, increasing farmers income, and creating employment opportunities particularly in rural sector.
- As of now, there are **22 Mega Food Parks** operational in India.

Integrated Cold Chain, Value Addition and Preservation Infrastructure

- The objective of the Scheme of Cold Chain, Value Addition and Preservation Infrastructure is to provide **integrated cold chain and preservation infrastructure facilities**, without any break, from the farm gate to the consumer.
- The scheme is under implementation since 2008.

Creation/Expansion of Food Processing/Preservation Capacities

- The main objective of the Scheme is creation of **processing and preservation capacities** and modernisation/ expansion of existing food processing units with a view to increasing the level of processing, value addition leading to reduction of wastage.

Infrastructure for Agro Processing Clusters

* The scheme aims at development of modern infrastructure and common facilities to encourage group of entrepreneurs to **set up food processing units** based on cluster approach by linking groups of producers/ farmers to the processors and markets through well-equipped supply chain with modern infrastructure.

Scheme for Creation of Backward and Forward Linkages

* The objective of the scheme is to provide **effective and seamless backward and forward integration** for processed food industry by plugging the gaps in supply chain in terms of availability of raw material and linkages with the market.
* Under the scheme, financial assistance is provided for setting up of primary processing centers/ collection centers at farm gate and modern retail outlets at the front end along with connectivity through insulated/ refrigerated transport.
* The scheme is under implementation since 2018.

Food Safety & Quality Assurance Infrastructure

* For the all-round development of the food processing sector in the country, government has been extending financial assistance to undertake various aspect of **Total Quality Management (**TQM) such as quality control, quality system and quality assurance should operate in a horizontal fashion.

Human Resources and Institutions

Agro Processing Cluster

* The scheme aims at **development of modern infrastructure** and common facilities to encourage group of entrepreneurs to set up food processing units based on cluster approach by linking groups of producers/ farmers to the processors and markets through well-equipped supply chain with modern infrastructure.

Operation Greens

* In the budget speech of 2018-19, a new Scheme "Operation Greens" was announced on the line of "Operation Flood", with an outlay of Rs. 500 crores to promote Farmer Producers Organizations, agri-logistics, processing facilities and professional management.
* The scheme was extended during June 2020 to cover all fruits & vegetables (TOTAL) for a period of six months on pilot basis as part of **Aatmanirbhar Bharat Abhiyan.**

PMKSY benefits

* The implementation of PMKSY will result in creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet.
* It will provide a big boost to the growth of food processing sector in the country.
* It will help in providing better prices to farmers and is a big step towards doubling of farmers' income.
* It will create huge employment opportunities especially in the rural areas.
* It will also help in reducing wastage of agricultural produce, increasing the processing level, availability of safe and convenient processed foods at affordable price to consumers and enhancing the export of the processed foods.

PM-DevINE Scheme

Context

* In Union Budget 2022-23, a new scheme, Prime Minister's Development Initiative for North-East (PM-DevINE) was announced by the Union Minister for Finance & Corporate Affairs.

Key Points

* **About:** PM-DevINE will fund infrastructure, in the spirit of PM GatiShakti, and social development projects based on felt needs of the North-East states.
* **Objective:** PM-DevINE scheme is being implemented with the following objectives-
  o To enable livelihood activities for youth and women
  o To filling gaps in various sectors
* **Implementing Agency:** PM-DevINE scheme will be implemented through the North-Eastern Council.
* **Funding:** An initial allocation of Rs. 1,500 crore will be made for the PM-DevINE scheme.
* **Project Selection:** Under PM-DevINE scheme, projects can be recommended by Centre and North East States as well but priority will be given to projects posed by the states.
* **Significance:** PM-DevINE scheme will enable livelihood activities for youth and women, filling the gaps in various sectors, the Minister explained.

FAQs

Which agency is responsible for implementing PM-DevINE Scheme?

* Ans. **PM-DevINE Scheme** will be implemented through the North-Eastern Council.

Which region will benefit fom the **PM-DevINE Scheme?**

* Ans: **PM-DevINE Scheme will benefit North-Eastern States.**

What are the objectives of the **PM-DevINE Scheme?**
- PM-DevINE scheme is being implemented with the following objectives-
  - To enable livelihood activities for youth and women
  - To filling gaps in various sectors

Scheme for Economic Empowerment of DNTs (SEED)

Context
- Recently, Ministry of Social Justice & Empowerment has launched the Scheme for Economic Empowerment of DNTs (SEED) for the welfare of **De-Notified Tribes (DNTs), Nomadic Tribes (NTs) and Semi Nomadic Tribes.**

SEED scheme: 4 Components
- **Educational empowerment**- Free coaching to students from these communities for Civil Services, entry to professional courses like medicine, engineering, MBA, etc.
- **Health Insurance** through PMJAY of National Health Authority.
- **Livelihoods** to support income generation, and
- **Housing** (through PMAY/IAY)

Features of SEED scheme
- The scheme will ensure **expenditure of Rs.200 crore** to be spent over five years beginning 2021-22.
- The **DWBDNCs** (Development and Welfare Board for De-notified, Nomadic and Semi-Nomadic Communities) has been tasked with the implementation of this scheme.
- An online portal has been developed by the department which will ensure seamless registration and will also act as a repository of the data on these communities.

DNTs, NTs, SNTs in India:

Before independence
- DNTs, NTs, SNTs are the one of the **most deprived and economically weaker** communities in India.
- The misery of these communities began with the enactment of the **Criminal Tribes Act, 1871** during the British rule.
- These communities were subjugated, persecuted and neglected. The policies of the colonial government affected lives and livelihood adversely.
- They were **branded as criminals** under various colonial acts, which led to the forcible alienation from their traditional occupations and habitations.

After independence
- The first commission was set up in October 2003 to look into the problems of these communities. The **Renke Commission** was set up in 2008.
- The **National Commission** was constituted in 2015 under the chairmanship of Shri Bhiku Ramji Idate for planned development of these communities.
- Based on the recommendation of this commission, the Government of India set up the **Development and Welfare Board for DNTs, SNTs &NTs** (DWBDNCs) in 2019.
- The Government also decided to create an umbrella scheme for empowerment of these communities and accordingly, the **Scheme for Economic Empowerment of DNTs, SNTs &NTs** (SEED) has been formulated with four components that affect their livelihood.

Who are DNT in India?
- The term **'De-notified Tribes'** stands for all those communities which were once notified under the Criminal Tribes Acts, enforced by the British Raj between l87l and I947.
- These Acts were **repealed by the Independent lndian Government in l952**, and these communities were "De-Notified". A few of these communities which were listed as de-notified were also nomadic.

Difference between DNTs, NTs and SNTs
- Terms such as nomads and semi-nomads are applied to 'social groups who undertook a fairly frequent, usually seasonal physical movement as port of their livelihood strategy in the recent past.
- The term semi-nomad is mostly used to describe those sections of nomads whose duration, distance and frequency of movement is comparitively less than others.
- The **distinction between nomads and semi-nomods** do not involve distinguishable ethnic categories or social groups, it rather describes the degree of mobility practiced by them.

Status of DNT in India
- In India, roughly **10 per cent of the population** is De-notified and Nomadic.
- While the number of De-notified Tribes is about 150, the population of Nomadic Tribes consists of about 500 different communities.
- While the Denotified Tribes have almost settled in various States of the country, the Nomadic Communities continue to be largely nomadic in pursuit of their traditional professions.

Schemes for DNTs in India

- **Dr. Ambedkar Pre-Matric and Post-Matric Scholarship for DNTs** : This Centrally Sponsored Scheme was launched w.e.f. 2014-15 for the welfare of those DNT students who are not covered under SC, ST or OBC.
- **Nanaji Deshmukh Scheme of Construction of Hostels for DNT Boys and Girls.** This Centrally Sponsored Scheme launched w.e.f. 2014-15 aimed to provide hostel facilities to those DNT students; who are not covered under SC, ST or OBC; to enable them to pursue higher education.
- From the year 2017-18, the scheme "Assistance to Voluntary Organization working for the Welfare of Other Backward Classes (OBCs)" has been extended for DNTs and EBCs.

Union Budget 2022-23 Highlights: Part A

Context

- Recently, the Union Minister for Finance & Corporate Affairs tabled the Union Budget 2022-23 in Parliament.
- The Union Budget seeks to complement macro-economic level growth with a focus on micro-economic level all-inclusive welfare.

Key Points

- **Economic Growth:** India's economic growth estimated at 9.2% to be the highest among all large economies.
- **Employment:** 60 lakh new jobs to be created under the productivity linked incentive scheme in 14 sectors.
  - PLI Schemes have the potential to create an additional production of Rs 30 lakh crore.
- **Growth Priorities:** Entering Amrit Kaal, the 25 year long lead up to India @100, the budget provides impetus for growth along four priorities-
  - PM Gati Shakti
  - Inclusive Development
  - Productivity Enhancement & Investment, Sunrise opportunities, Energy Transition, and Climate Action.
  - Financing of investments

PM Gati Shakti

- **The seven engines that drive PM GatiShakti are-**
  - Roads,
  - Railways,
  - Airports,
  - Ports,
  - Mass Transport,
  - Waterways and
  - Logistics Infrastructure.

- **PM GatiShkati National Master Plan**
  - The scope of PM GatiShakti National Master Plan will encompass the seven engines for economic transformation, seamless multimodal connectivity and logistics efficiency.
  - The projects pertaining to these 7 engines in the National Infrastructure Pipeline will be aligned with PM GatiShakti framework.
- **Road Transport**
  - National Highways Network to be expanded by 25000 Km in 2022-23.
  - Rs 20000 Crore to be mobilized for National Highways Network expansion.
- **Multimodal Logistics Parks**
  - Contracts to be awarded through PPP mode in 2022-23 for implementation of Multimodal Logistics Parks at four locations.
- **Railways**
  - One Station One Product concept to help local businesses & supply chains.
  - 2000 Km of railway network to be brought under Kavach, the indigenous world class technology and capacity augmentation in 2022-23.
  - 400 new generation Vande Bharat Trains to be manufactured during the next three years.
  - 100 PM GatiShakti Cargo terminals for multimodal logistics to be developed during the next three years.
- **Parvatmala**
  - National Ropeways Development Program, Parvatmala to be taken up on PPP mode.
  - Contracts to be awarded in 2022-23 for 8 ropeway projects of 60 Km length.

Union Budget 2022-23 Highlights: Part B

Context

- Recently, the Union Minister for Finance & Corporate Affairs tabled the Union Budget 2022-23 in Parliament.
- The Union Budget seeks to complement macro-economic level growth with a focus on micro-economic level all-inclusive welfare.

Key Points about Direct Taxes

- **To take forward the policy of stable and predictable tax regime:**
- Vision to establish a trustworthy tax regime.
- To further simplify tax system and reduce litigation.
- **Introducing new 'Updated return'**
  o Provision to file an Updated Return on payment of additional tax.
  o Will enable the assessee to declare income missed out earlier.
  o Can be filed **within two years** from the end of the relevant assessment year.
- **Cooperative societies**
  o Alternate Minimum Tax paid by cooperatives brought down from **18.5 per cent to 15 per cent.**
  o To provide a level playing field between cooperative societies and companies.
  o Surcharge on cooperative societies reduced from **12 per cent to 7 per cent** for those having total income of more than Rs 1 crore and up to Rs 10 crores.
- **Tax relief to persons with disability**
  o Payment of annuity and lump sum amount from insurance scheme to be allowed to differently abled dependent during the lifetime of parents/guardians, i.e., on parents/ guardian attaining the age of 60 years.
- **Parity in National Pension Scheme Contribution**
- Tax deduction limit increased from **10 per cent to 14 per cent** on employer's contribution to the NPS account of State Government employees.
- Brings them at par with central government employees.
- Would help in enhancing social security benefits.
- **Incentives for Start-ups**
  o Period of incorporation extended by **one year, up to 31.03.2023** for eligible start-ups to avail tax benefit.
  o Previously the period of incorporation valid up to 31.03.2022.

- **Incentives under concessional tax regime**
  o Last date for commencement of manufacturing or production under section 115BAB extended by **one year i.e. from 31ₛₜ March, 2023 to 31ₛₜ March, 2024.**
- **Scheme for taxation of virtual digital assets**
  o Specific tax regime for virtual digital assets introduced.
  o Any income from transfer of any virtual digital asset to be taxed at the rate of **30 per cent**.
  o No deduction in respect of any expenditure or allowance to be allowed while computing such income except cost of acquisition.
  o Loss from transfer of virtual digital asset cannot be set off against any other income.
  o To capture the transaction details, TDS to be provided on payment made in relation to transfer of virtual digital asset at the rate of 1 per cent of such consideration above a monetary threshold.
  o Gift of virtual digital asset also to be taxed in the hands of the recipient.
- **Litigation Management**
  o In cases where question of law is identical to the one pending in High Court or Supreme Court, the filing of appeal by the department **shall be deferred** till such question of law is decided by the court.
  o To greatly help in reducing repeated litigation between taxpayers and the department.
- **Tax incentives to IFSC**
- Subject to specified conditions, the following to be **exempt from tax**
- Income of a non-resident from offshore derivative instruments.
- Income from over the counter derivatives issued by an offshore banking unit.
- Income from royalty and interest on account of lease of ship.
- Income received from portfolio management services in IFSC.
- **Rationalization of Surcharge**
  o Surcharge on AOPs (consortium formed to execute a contract) capped at **15 per cent.**
  o Done to reduce the disparity in surcharge between individual companies and AOPs.
  o Surcharge on long term capital gains arising on transfer of any type of assets capped at **15 per cent.**
  o To give a boost to the start-up community.

- **Health and Education Cess**
  - o Any surcharge or cess on income and profits **not allowable** as business expenditure.
- **Deterrence against tax-evasion**
  - o No set off, of any loss to be allowed against undisclosed income detected during search and survey operations.
- **Rationalizing TDS Provisions**
- Benefits passed on to agents as business promotion strategy taxable in hands of agents.
- Tax deduction provided to person giving benefits, if the aggregate value of such benefits exceeds Rs 20,000 during the financial year.

Key Points about Indirect Taxes
- **Remarkable progress in GST**
  - o GST revenues are buoyant despite the pandemic – Taxpayers deserve applause for this growth.
- **Special Economic Zones**
  - o Customs Administration of SEZs to be fully IT driven and function on the **Customs National Portal** – shall be implemented by 30ᵗʰ September 2022.
- **Customs Reforms and duty rate changes**
  - o Faceless Customs has been fully established. During Covid-19 pandemic, Customs formations have done exceptional frontline work against all odds displaying agility and purpose.
- **Project imports and capital goods**
  - o Gradually phasing out of the concessional rates in capital goods and project imports; and applying a moderate tariff of **7.5 percent** – conducive to the growth of domestic sector and 'Make in India'.
  - o Certain exemptions for advanced machineries that are not manufactured within the country shall continue.
  - o A few exemptions introduced on inputs, like specialised castings, ball screw and linear motion guide - to encourage domestic manufacturing of capital goods.
- **Review of customs exemptions and tariff simplification**
  - o More than **350 exemption entries proposed** to be gradually phased out, like exemption on certain agricultural produce, chemicals, fabrics, medical devices, & drugs and medicines for which sufficient domestic capacity exists.
  - o Simplifying the Customs rate and tariff structure particularly for sectors like chemicals, textiles and metals and minimise disputes;

  - o Removal of exemption on items which are or can be manufactured in India and providing concessional duties on raw material that go into manufacturing of intermediate products – in line with the objective of 'Make in India' and 'Atmanirbhar Bharat'.

Union Budget 2022-23 Highlights: Sector specific proposals

- **Electronics**
  - o Customs duty rates to be calibrated to provide a graded rate structure - to facilitate domestic manufacturing of wearable devices, hearable devices and electronic smart meters.
  - o Duty concessions to parts of transformer of mobile phone chargers and camera lens of mobile camera module and certain other items – To enable domestic manufacturing of high growth electronic items.
- **Gems and Jewellery**
  - o Customs duty on cut and polished diamonds and gemstones being reduced **to 5 per cent**; Nil customs duty to simply sawn diamond - To give a boost to the Gems and Jewellery sector
  - o A simplified regulatory framework to be implemented by June this year - To facilitate export of jewellery through e-commerce.
  - o Customs duty of at least Rs 400 per Kg to be paid on imitation jewellery import - To disincentivise import of undervalued imitation jewellery.
- **Chemicals**
  - o Customs duty on certain critical chemicals namely methanol, acetic acid and heavy feed stocks for petroleum refining being reduced;
  - o Duty is being raised on sodium cyanide for which adequate domestic capacity exists – This will help in enhancing domestic value addition.
- **MSME**
  - o Customs duty on umbrellas being raised to 20 per cent. Exemption to parts of umbrellas being withdrawn.
  - o Exemption being rationalised on implements and tools for agri-sector which are manufactured in India
  - o Customs duty exemption given to steel scrap last year extended for another year to provide relief to MSME secondary steel producers
  - o Certain Anti- dumping and CVD on stainless steel and coated steel flat products, bars of alloy steel and high-speed steel are being revoked – to tackle prevailing high prices of metal in larger public interest.

- **Exports**
  - To incentivise exports, exemptions being provided on items such as embellishment, trimming, fasteners, buttons, zipper, lining material, specified leather, furniture fittings and packaging boxes.
  - Duty being reduced on certain inputs required for **shrimp aquaculture** - to promote its exports.
- **Tariff measure to encourage blending of fuel**
  - Unblended fuel to attract an additional differential **excise duty of Rs 2/ litre** from the 1st of October 2022 - to encourage blending of fuel.

Inclusive Development

Agriculture
- Rs. 2.37 lakh crore direct payment to 1.63 crore farmers for procurement of wheat and paddy.
- Chemical free Natural farming to be promoted throughout the county. Initial focus is on farmer's lands in 5 Km wide corridors along river Ganga.
- NABARD to facilitate fund with blended capital to finance startups for agriculture & rural enterprise.
- 'Kisan Drones' for crop assessment, digitization of land records, spraying of insecticides and nutrients.

Ken Betwa Project
- 1400 crore outlay for implementation of the Ken – Betwa link project.
- 9.08 lakh hectares of farmers' lands to receive irrigation benefits by Ken-Betwa link project.
- MSME
- Udyam, e-shram, NCS and ASEEM portals to be interlinked.
- 130 lakh MSMEs provided additional credit under Emergency Credit Linked Guarantee Scheme (ECLGS)
- ECLGS to be extended up to March 2023.
- Guarantee cover under ECLGS to be expanded by Rs 50000 Crore to total cover of Rs 5 Lakh Crore.
- Rs 2 lakh Crore additional credit for Micro and Small Enterprises to be facilitated under the Credit Guarantee Trust for Micro and Small Enterprises (CGTMSE).
- Raising and Accelerating MSME performance (RAMP) program with outlay of Rs 6000 Crore to be rolled out.

Skill Development
- Digital Ecosystem for Skilling and Livelihood (DESH-Stack e-portal) will be launched to empower citizens to skill, reskill or upskill through on-line training.
  - Startups will be promoted to facilitate 'Drone Shakti' and for Drone-As-A-Service (DrAAS).

Education
- One class-One TV channel' programme of PM eVIDYA to be expanded to 200 TV channels.
- Virtual labs and skilling e-labs to be set up to promote critical thinking skills and simulated learning environment.
- High-quality e-content will be developed for delivery through Digital Teachers.
- Digital University for world-class quality universal education with personalised learning experience to be established.
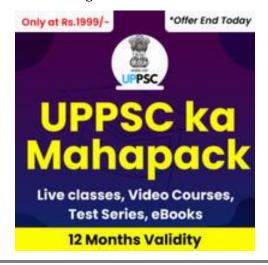
Health
- Budget 2022-23 provides for an open platform for National Digital Health Ecosystem which is to be rolled out.
- 'National Tele Mental Health Programme' for quality mental health counselling and care services to be launched.
- A network of 23 tele-mental health centres of excellence will be set up, with NIMHANS being the nodal centre and International Institute of Information Technology-Bangalore (IIITB) providing technology support.

Saksham Anganwadi
- In **Union Budget 2022-23,** Integrated benefits to women and children through Mission Shakti, Mission Vatsalya, Saksham Anganwadi and Poshan 2.0.
  - Two lakh anganwadis to be upgraded to Saksham Anganwadis.

Har Ghar, Nal Se Jal

- In **Union Budget 2022-23,** Rs. 60,000 crore is allocated to cover 3.8 crore households in 2022-23 under Har Ghar, Nal se Jal.

Housing for All

- In **Union Budget 2022-23,** Rs. 48,000 crore is allocated for completion of 80 lakh houses in 2022-23 under PM Awas Yojana.

Prime Minister's Development Initiative for North-East Region (PM-DevINE)

- New scheme PM-DevINE launched in **Union Budget 2022-23,** to fund infrastructure and social development projects in the North-East.
- An initial allocation of Rs. 1,500 crore made to enable livelihood activities for youth and women under the scheme.

Vibrant Villages Programme

- Vibrant Villages Program for development of Border villages with sparse population, limited connectivity and infrastructure on the northern border.

Banking

- 100 per cent of 1.5 lakh post offices to come on the core banking system.
- Scheduled Commercial Banks to set up 75 Digital Banking Units (DBUs) in 75 districts.

e-Passport

- e-Passports with embedded chip and futuristic technology to be rolled out.

Urban Planning

- Modernization of building byelaws, Town Planning Schemes (TPS), and Transit Oriented Development (TOD) will be implemented.
- Battery swapping policy to be brought out for setting up charging stations at scale in urban areas.

Land Records Management

- Unique Land Parcel Identification Number for IT-based management of land records.

Accelerated Corporate Exit

- Centre for Processing Accelerated Corporate Exit (C-PACE) to be established for speedy winding-up of companies.

AVGC Promotion Task Force

- An animation, visual effects, gaming, and comic (AVGC) promotion task force to be set-up to realize the potential of this sector.

Telecom Sector

- Scheme for design-led manufacturing to be launched to build a strong ecosystem for 5G as part of the Production Linked Incentive Scheme.

Export Promotion

- Special Economic Zones Act to be replaced with a new legislation to enable States to become partners in 'Development of Enterprise and Service Hubs'.

AtmaNirbharta in Defence

- 68% of capital procurement budget earmarked for domestic industry in 2022-23, up from 58% in 2021-22.
  - o Defence R&D to be opened up for industry, startups and academia with 25% of defence R&D budget earmarked.
  - o Independent nodal umbrella body to be set up for meeting testing and certification requirements.

Sunrise Opportunities

- Government contribution to be provided for R&D in Sunrise Opportunities like Artificial Intelligence, Geospatial Systems and Drones, Semiconductor and its eco-system, Space Economy, Genomics and Pharmaceuticals, Green Energy, and Clean Mobility Systems.

Energy Transition and Climate Action

- Additional allocation of Rs. 19,500 crore for Production Linked Incentive for manufacture of high efficiency solar modules to meet the goal of 280 GW of installed solar power by 2030.
- Five to seven per cent biomass pellets to be co-fired in thermal power plants:
  - o CO2 savings of 38 MMT annually,
  - o Extra income to farmers and job opportunities to locals,
  - o Help avoid stubble burning in agriculture fields.
- Four pilot projects to be set up for coal gasification and conversion of coal into chemicals for the industry
- Financial support to farmers belonging to Scheduled Castes and Scheduled Tribes, who want to take up agro-forestry.

Public Capital Investment

- Public investment to continue to pump-prime private investment and demand in 2022-23.
  - o Outlay for capital expenditure stepped up sharply by 35.4% to Rs. 7.50 lakh crore in 2022-23 from Rs. 5.54 lakh crore in the current year.
  - o Outlay in 2022-23 to be 2.9% of GDP.

- 'Effective Capital Expenditure' of Central Government estimated at Rs. 10.68 lakh crore in 2022-23, which is about 4.1% of GDP.

GIFT-IFSC

- World-class foreign universities and institutions to be allowed in the GIFT City.
- An International Arbitration Centre to be set up for timely settlement of disputes under international jurisprudence.

Mobilising Resources

- Data Centres and Energy Storage Systems to be given infrastructure status.
- Venture Capital and Private Equity invested more than Rs. 5.5 lakh crore last year facilitating one of the largest start-up and growth ecosystem. Measures to be taken to help scale up this investment.
- Blended funds to be promoted for sunrise sectors.
- Sovereign Green Bonds to be issued for mobilizing resources for green infrastructure.

Digital Rupee

- **Union Budget 2022-23 provides for the i**ntroduction of Digital Rupee by the Reserve Bank of India starting 2022-23.

Providing Greater Fiscal Space to States

- Enhanced outlay for 'Scheme for Financial Assistance to States for Capital Investment':
  o From Rs. 10,000 crore in Budget Estimates to Rs. 15,000 crore in Revised Estimates for current year
- Allocation of Rs. 1 lakh crore in 2022-23 to assist the states in catalysing overall investments in the economy: fifty-year interest free loans, over and above normal borrowings
- In 2022-23, States will be allowed a fiscal deficit of 4% of GSDP, of which 0.5% will be tied to power sector reforms

Fiscal Management

- **Budget Estimates 2021-22:** Rs. 34.83 lakh crore
- **Revised Estimates 2021-22:** Rs. 37.70 lakh crore
- **Total expenditure in 2022-23** estimated at Rs. 39.45 lakh crore
- **Total receipts other than borrowings** in 2022-23 estimated at Rs. 22.84 lakh crore
- **Fiscal deficit in current year:** 6.9% of GDP (against 6.8% in Budget Estimates)
- **Fiscal deficit in 2022-23** estimated at 6.4% of GDP

Tourism Sector and Union Budget 2022-23

Context

- The Union Budget 2022-23 presented the government's plans to increase capital expenditure by 35% and fuel growth for an economy recovering from 3 waves of the COVID-19 pandemic.
- The Union Budget 2022-23 emphasized on the development of large infrastructure, connectivity and border linkages will play a major role in boosting tourism in India.

Key provisions

- **Budgetary Provision:** Union Budget 2022 earmarked an additional amount of INR 2400 crores for the Ministry of Tourism. This is 18.42% higher than 2021-22.
  o It is to be utilized by the Tourism Ministry for developing tourism infrastructure, marketing and promotion, and capacity building.
- **PM Gati Shakti master plan for expressways:** it will facilitate speedier implementation of development projects under the National Infrastructure Pipeline through the use of technology.
  o This will facilitate faster movement of people and goods, seamless multimodal connectivity, economic transformation, and logistical synergy.
  o This will pull forward not just the economy but will also play a role in boosting tourism in India.
- **Development of 5 new river links**: These rivers are Daman Ganga Pinjal, Par Tapi Narmada, Godavari Krishna, Krishna Pennar, Peenar Kaveri.
  o It will boost Cruise Tourism an area that has seen a great success in the Ganga and Brahmaputra rivers.
- **Great focus on developing roads in border regions:** will greatly enhance livelihood of people residing in border areas.
  o The Ministry of Tourism has been making efforts to boost border tourism in the country.
  o Border villages with sparse population, limited connectivity and infrastructure often get left out from development gains.
  o Such villages on the Northern Border will be covered under a new Vibrant Villages Program.
  o Activities will include construction of village infrastructure, housing, tourist centres, road connectivity, provision of decentralized renewable energy, etc.

- Swadesh Darshan Scheme: Darshan Scheme is a flagship scheme of Ministry of Tourism under which 76 projects in 13 thematic circuits have been sanctioned by the Ministry.
  o In budget, an outlay of INR 1181.30 crore has been allocated for the Swadesh Darshan Scheme.
  o The budget allocation will help the Ministry to complete ongoing projects under the Scheme.
  o The infrastructure created will provide a better tourism experience to the tourists at smaller and lesser-known destinations.
- **PRASHAD Scheme:** It aims for holistic development of selected pilgrimage destinations in the country.
  o In the Budget 2022-23, an amount of INR 235 crores has been allocated for the PRASHAD Scheme.
  o A total of 37 projects have been sanctioned under PRASHAD Scheme, of which 17 projects have been completed.
- **PM-DevINE scheme:** it is being implemented through the Northeast council.
  o It will fund infrastructure in the spirit of PM Gati Shakti and social development based on health needs of the North East.
  o This will specifically benefit youth and women of the North East.
  o An initial Rs. 1,500 crores have been made available for the PM-DevINE scheme.

UDAN scheme: Only 1 out of 4 survive on completion of 3 years

Context
- Recently, Ministry of Civil Aviation has informed the parliamentary panel that **only one out of four routes** under the UDAN (Ude Desh ka Aam Nagrik) scheme have survived after completing the government's subsidy period of three years.

Key points
- Of the 94 RCS (Regional Connectivity Scheme)-UDAN routes that have completed 3-year tenure till Nov 2021, **only 22 routes are in operation**.
- UDAN scheme is aimed to take **flying to the masses** and improve air connectivity to tier-2 and tier-3 cities.
- Under the scheme, airlines have to cap fares at **₹2,500 per seat per hour** of flight for 50% of the seats in a plane for which they receive a viability gap

funding (subsidy) from the government along with some other benefits.
- The government expected that after the expiry of the three-year subsidy period, airlines would be able to **sustain the routes without outside support**.

Reasons
- **Pluming of demand**: 300 routes have been affected due to poor demand on account of Covid-19 pandemic situation.
- **Difficult business**: Airline is a difficult business due to low yield and high operating costs, which often makes the airline business untenable.
- **Lack of slots** at congested airports like Delhi and Mumbai.
- **Non-availability of smaller planes and maintenance issues** which require procurement of spare parts from abroad.
- **Delay in airport completion**: Delays in completing airport development work due to lack of funds and non-availability of land.

About UDAN
- **UDAN scheme full form**: Ude Desh Ka Aam Naagrik is a Regional Connectivity Scheme (RCS) to ensure affordability, connectivity, growth and development.
- It provides a **win-win situation** for all stakeholders – citizens would get the benefit of affordability, connectivity and more jobs.
- The scheme was **launched in 2016** and would be in operation for a period of 10 years.

UDAN scheme benefits
- Central Government would provide concessions in the form of **reduced excise duty, service tax, and flexibility of code** sharing at the RCS (UDAN) airports.
- State governments will have to **lower the GST on ATF to 1% or less**, besides providing security and fire services free of cost and electricity, water and other utilities at substantially concessional rates.
- A **Regional Connectivity Fund** would be created to meet the viability gap funding requirements under the scheme. The RCF levy per departure will be applied to certain domestic flights.
  o The partner State Governments (other than Northeastern States and Union Territories where contribution will be 10 %) would contribute **a 20% share to this fund**.

Social Issues

Education in India: Learning recovery program for the session 2022-23

Context
- Recently, Ministry of Education (MoE) has written to states and union territories with a **learning recovery program** to ensure a continuum of learning and mitigate the impact of the pandemic.

Key points
- A learning recovery plan (LRP) has been prepared that delineates the action to be undertaken by each stakeholder, indicative annual calendar of activities, existing interventions which can be utilised and additional support with **funding as a one-time measure.**
- In order to **mitigate the impact of the pandemic**, a multi-pronged and holistic approach has been taken to ensure that children received suitable support.

Learning recovery plan
The states have been asked to include provisions like
- **Budget provisions**
- Financial support of Rs 500 per head for all students of upper primary and secondary levels,
- Rs 10,000 per head for 25 lakh teachers at the primary level for tablets, funds for ORF study,
- financial support of Rs 6.40 lakh non-recurring and Rs 2.40 lakh recurring cost including for tablets for ICT facility in each block resource centre (BRC) and
- Rs 1,000 per cluster resource centre (CRC) as mobility support as part of the learning recovery plan.
- **Academic calender**
- Identifying out-of-school children and drop-outs from each grade and locating them,
- Ensuring implementation of bridge courses and school readiness module for secondary classes,
- Clustering of schools with private schools, Kendriya Vidyalayas or Navodaya Vidyalayas for learning from each other,
- Creating a district-wise strategy for post-National Achievement Survey (NAS) interventions based on results.
- Preparation and roll-out of customised training programmes for teachers, Ensuring delivery of textbooks and uniforms and tracking each child by preparing child registry at school level which is available till district level.

Why needed?
- While more than 90 per cent of the countries adopted digital and/or broadcast remote learning policies, **only 60 per cent did so for pre-primary education**.
- Policy measures taken by the governments to ensure learning continuity through broadcast or digital media allowed for potentially reaching 69 per cent of schoolchildren (at maximum) in pre-primary to secondary education globally.
- **31 per cent of schoolchildren** worldwide (463 million) cannot be reached by the broadcast- and Internet-based remote learning policies either due to the lack of necessary technological assets at home, or because they were not targeted by the adopted policies.
- Online platforms were the most used means by the governments to deliver education while schools remain closed, with 83 per cent of countries using this method. However, this allowed for potentially reaching **only about a quarter of schoolchildren worldwide**.
- Television had the potential to reach the most students (62 per cent) globally.
- **Only 16 per cent of schoolchildren** could be reached by radio-based learning worldwide.
- Globally, 3 out of 4 students who cannot be reached by the remote learning policies come from **rural areas** and/or belong to the poorest households.

Money laundering more heinous than murder: Supreme Court

Context
- Recently, a petition was filed in the Supreme Court of India to challenge various provisions of Prevention of Money Laundering Act (PMLA) for allegedly being in violation of basic **principles of natural justice.**

Provisions challenged
- Coercive powers, including the power of arrest without a warrant on a mere subjective satisfaction of the concerned officer.
- The petitioners have also challenged the validity of section 45 of the Act for putting limitations for granting bail.

What the SC said?
- The Supreme Court was of the view that the offence of money laundering cannot be treated lightly as laundering is more heinous than murder.
- Supreme Court also said that money laundering damages the economy and the financial system of the country.
- Supreme Court observed that money laundering is not only used for drug trading but also for terrorist activities that affects sovereignty and integrity of India.

Prevention of Money Laundering Act, 2002
- Prevention of Money Laundering Act, 2002 was enacted to fight against the criminal offence of money laundering.
- The Prevention of Money Laundering Act, 2002 enables the Government to confiscate the property earned from the illegally gained proceeds.

PMLA objectives
- Prevent money-laundering.
- Combat/prevent channelising of money into illegal activities and economic crimes.
- Provide for the confiscation of property derived from, or involved/used in, money-laundering.
- Provide for matters connected and incidental to the acts of money laundering

What is Money laundering?
- According to UN, "the conversion or transfer of property, knowing that such property is derived from any offense(s), for the purpose of concealing or disguising the illicit origin of the property or of assisting any person who is involved in such offense(s) to evade the legal consequences of his actions".
- So, Money laundering can be defined as the illegal process of making large amounts of money generated by a criminal activity, such as drug trafficking or terrorist funding, appear to have come from a legitimate source.
- The money from the criminal activity is considered dirty, and the process "launders" it to make it look clean.
- Money laundering is a serious financial crime that is employed by white collar and street-level criminals alike.

Money Laundering: 3 stages
- Placement: moving the funds from direct association with the crime.
- Layering: disguising the trail to foil pursuit.
- Integration: making the money available to the criminal from what seem to be legitimate sources.

New India Literacy Programme

Context
- Recently, Ministry of Education has approved a new scheme "New India Literacy Programme" **(NILP)** for the period FYs 2022-2027 to cover all the aspects of adult education in India.

Key points
- The scheme will align with National Education Policy 2020 and Budget Announcements 2021-22.
  o The National Education Policy 2020 has recommendations for Adult Education and Lifelong Learning.
- In Union Budget 2022, announcement had been made to enable increased access of resources, online modules covering the entire gamut of adult education.
- the term "**Education For All" will be used in place of "Adult Education**" by the Ministry from now onwards.
  o **Rationale behind the decision**: The terminology "Adult Education" is not incorporating appropriately all non-literates of 15 years and above age group.
- **NILP financial outlay**: The estimated total outlay of "New India Literacy Programme" is around Rs.1038 crore which includes Central share of Rs.700 crore and State share of Rs.338 crore respectively for the FYs 2022 -27.

NILP objective
- To impart not only foundational literacy and numeracy but also to cover other components which are necessary for a citizen of 21st century such as
  o **critical life skills** (including financial literacy, digital literacy, commercial skills, health care and awareness, child care and education, and family welfare); vocational skills development (with a view towards obtaining local employment);
  o **basic education** (including preparatory, middle, and secondary stage equivalency); and
  o **continuing education** (including engaging holistic adult education courses in arts, sciences, technology, culture, sports, and recreation, as well as other topics of interest or use to local learners, such as more advanced material on critical life skills).

NILP implementation

- The scheme will be implemented **through volunteerism** through online mode.
- All material and resources shall be provided digitally for easy access to registered volunteers through easily accessible digital modes, viz, TV, radio, cell phone-based free/open-source Apps/portals, etc.

NILP coverage

- The scheme will **cover non-literates of the age of 15 years and above** in all state/UTs in the country.
- The target for Foundational Literacy and Numeracy for FYs 2022-27 is **5 crore learners** (1 crore per year) by using "**Online Teaching, Learning and Assessment System** (OTLAS)" in collaboration with National Informatics Centre, NCERT and NIOS.
    - In OTLAS, a learner may register him/herself with essential information like name, date of birth, gender, Aadhaar number, mobile number etc.

NILP salient features

- **School will be the unit** for implementation of the scheme.
- Schools to be used for conducting survey of beneficiaries and Voluntary Teachers (VTs).
- Different strategies are to be adopted for different age cohorts. **Flexibility for States/UTs** will be provided to undertake innovative activities.
- Foundational Literacy and Numeracy will be imparted through Critical Life Skills to all non-literates in the age group of 15 years and above.
- Use of Technologies to impart Adult Education for wider coverage of the scheme.
- **Performance Grading Index** (PGI) for State/UT and district level will show the performance of States and UTs to implement the scheme and achievements on yearly basis by weighing both the physical and financial progress through UDISE portal.
- CSR/Philanthropic support may be received by hosting ICT support, providing volunteer support, opening facilitation centres for learners and for providing IT access to economically weak learners in the form of cell phones, etc
- **Priority and Saturation in Literacy**- The age cohort of 15-35 will be saturated first followed by ages 35 and above.

- Priority will be given in terms of categories to the Girls and women, SC/ST/OBC/Minorities, Persons with Special Needs (Divyangjans), Marginalized/ Nomadic/ construction workers/ laborers/etc. who can substantially and immediately benefit from adult education.
- In terms of location/area, the focus shall be on all aspirational districts of NITI Aayog, districts with literacy rates less than the National/State average, districts with female literacy rates less than 60% as per the 2011 Census, Districts/ Blocks with large SC/ST/ Minority population, Educationally Backward Blocks, Left Wing Extremism Affected districts.
- Convergence with Ministries and Departments for effective implementation of NILP.

NILP as Jan Andolan

- The three crores students/children of around 7 lakh schools registered under UDISE along with about 50 lakh teachers of Government, Aided and Private schools will participate as volunteer.
- An estimated 20 lakh students from Teacher Education and Higher Education Institutions will be actively involved as volunteer.
- Support will be garnered from PRIs, Anganwadi workers, ASHA workers and an estimated 50 lakhs NYSK, NSS and NCC volunteers.
- There will be involvement of community, participation of philanthropic/CSR organizations through volunteerism and through **Vidyanjali portal**.
- States/UTs will promote individual/ family/ village/ district success stories through various platforms.
- It will **utilize all types of media** – Electronic, Print, Folk & Inter-personal platforms including social media platforms like Facebook, Twitter, Instagram, WhatsApp, YouTube, TV channels, radio, etc.
- Central Portal to be developed by NIC for aggregated data capturing equipped with Mobile App, Online Survey Module, Physical & Financial Modules and Monitoring Framework, etc.
- Assessment of Literacy will be conducted using scientific format to capture the real-life learnings and skills for functional literacy. Assessment on demand will also be made through OTLAS and e-certificate jointly e-signed by NIOS and NLMA will be issued to the learner.
- Annual Achievement Survey of Learning Outcomes by samples of 500-1000 randomly selected learners from each state/UT and Outcome-Output Monitoring Framework (OOMF).

Non-literates in India

- As per Census 2011, the absolute number of non-literates of the country in 15 years and above age group is **25.76 crore** (Male 9.08 crore, Female 16.68 crore).
- In consideration of the progress of persons certified as literates being to the tune of 7.64 crore under the **Saakshar Bharat programme** implemented during 2009-10 to 2017-18, it is estimated that currently around **18.12 crore adults are still non-literate** in India.

Rashtriya Uchchatar Shiksha Abhiyan (RUSA)

Context

- Recently, Ministry of Education has approved the scheme of Rashtriya Uchchatar Shiksha Abhiyan (RUSA) for continuation **till 31.03.2026.**

Key points

- The proposal entails an expenditure of **around Rs. 13000 crores**.
- It has been envisaged to support **around 1600 projects** under the new phase of the scheme.

RUSA 2022

- **New RUSA targets**: to reach out the unserved, underserved areas; remote/ rural areas; difficult geographies; LWE areas; NER; aspirational districts, tier-2 cities, areas with low GER etc., and to benefit the most disadvantaged areas and SEDGs.
- **Implement NEP**: The new phase of the scheme has been designed to implement some of the recommendations and aims of the New Education Policy, which suggests some key changes to the current higher education system to revamp and re-energize it and thereby deliver quality higher education, with equity and inclusion.
- **Support to states**: Under the new phase of the scheme, State Governments will be supported for Gender inclusion, Equity Initiatives, ICT, Enhancing employability through vocationalisation & skill upgradation.
  - States will also be supported for creation of new Model Degree Colleges.
  - State Universities will be supported for Multi-Disciplinary Education and Research.
  - Grants will be provided for strengthening both accredited and non-accredited Universities and Colleges for undertaking various activities including teaching-learning in Indian languages.

About RUSA

- Rashtriya Uchchatar Shiksha Abhiyan (RUSA) is a **Centrally Sponsored Scheme** (CSS), launched in 2013.
- It is aimed at providing strategic funding to **eligible state higher educational institutions**.
- It is operating in mission mode for funding the state government universities and colleges to achieve the aims of **equity, access and excellence**.

RUSA objectives

- **Improve the overall quality** of state institutions by ensuring conformity to prescribed norms and standards and adopt accreditation as a mandatory quality assurance framework.
- **Usher transformative reforms** in the state higher education system by creating a facilitating institutional structure for planning and monitoring at the state level, promoting autonomy in State Universities and improving governance in institutions.
- **Ensure reforms** in the affiliation, academic and examination systems.
- **Ensure** adequate availability of quality faculty in all higher educational institutions and ensure capacity building at all levels of employment.
- **Create an enabling atmosphere** in the higher educational institutions to devote themselves to research and innovations.
- **Correct regional imbalances** in access to higher education by setting up institutions in unserved & underserved areas.
- **Improve equity** in higher education by providing adequate opportunities of higher education to SC/STs and socially and educationally backward classes; promote inclusion of women, minorities, and differently abled persons.

RUSA targets

- RUSA seeks to increase the Gross Enrolment Ratio of the country to **30% by 2020.**
- It also seeks to **increase the spending** on higher education by the State Governments.
- The scheme, in its 2nd phase (2017 - 2020), aims at creation of **70 new model degree colleges** and 8 new professional colleges; Enhancing quality and Excellence in 10 select State universities and 70 autonomous colleges, providing infrastructural support to 50 universities and 750 colleges etc.

- **Improving access, equity and accessibility** of higher education in Slates through reforms such as academic reforms, governance reforms, affiliation reforms etc.
- Improve equity in higher education by providing adequate opportunities of higher education to socially deprived communities; promote inclusion of women, minorities, SC/ST/OBCs and differently abled persons.
- To **identity and fill up the existing gaps** in higher education, by augmenting and supporting the State Governments' efforts.

Promote a spirit of healthy competition amongst states and institutions to excel in quality higher education, research and innovation.

Rashtriya Vayoshri Yojana (RVY)

Context
- Recently, camp for free Assistive Devices distribution organized for Divyangjan and Senior Citizens under 'Rashtriya Vayoshri Yojana' (RVY Scheme) of the Ministry of Social Justice and Empowerment.
- Indigenously developed "Sugamya" Cane for Visually Impaired and 'Swavlamban Kendra Container' for skill development training and repairing centre launched at Tikamgarh, Madhya Pradesh by Union Social Justice Minister.

Key Points
- **About:** Rashtriya Vayoshri Yojana (RVY) is a scheme for providing Physical Aids and Assisted-living Devices for Senior citizens belonging to BPL category.
- **Ministry:** Rashtriya Vayoshri Yojana (RVY) is a central sector scheme of the Ministry of Social Justice and Empowerment.
- **Funding:** The expenditure for implementation of Rashtriya Vayoshri Yojana (RVY) will be met from the "Senior Citizens' Welfare Fund".
- **Implementing Agency: It** will be implemented through the sole implementing agency - Artificial Limbs Manufacturing Corporation (ALIMCO), a PSU under the Ministry of Social Justice and Empowerment.
- **Eligibility:** The main criteria for the senior citizens to get full benefits of Rashtriya Vayoshri Yojana (RVY) scheme is that they must belong to BPL family and should hold valid BPL card issued by the concerned authority.

Key Features
- Free of cost distribution of the devices, commensurate with the extent of disability/infirmity that is manifested among the eligible senior citizens.
- In case of multiple disabilities/infirmities manifested in the same person, the assistive devices will be given in respect of each disability/impairment.
- Artificial Limbs Manufacturing Corporation (ALIMCO) will undertake one year free maintenance of the aids & assisted living devices.
- Beneficiaries in each district will be identified by the State Governments/UT Administrations through a Committee chaired by the Deputy Commissioner/District Collector.
- As far as possible, 30% of the beneficiaries in each district shall be women.
- The State Government/UT Administration/District Level Committee can also utilize the data of BPL beneficiaries receiving Old Age Pension under the NSAP or any other Scheme of the State/UT for identification of senior citizens belonging to BPL category.
- The devices will be distributed in Camp mode.

Device Supported
- Under the Rashtriya Vayoshri Scheme, the following Aids and Assisted-Living Devices will be provided to eligible elderly beneficiary senior citizens, depending upon their physical impairment.
  - Walking sticks
  - Elbow crutches
  - Walkers / Crutches
  - Tripods / Quadpods
  - Hearing Aids
  - Wheelchair
  - Artificial Dentures
  - Spectacles

SPARSH: System for Pension Administration

Context
- Recently, Ministry of Defence has signed an MoU with CSC e-Governance Services India Limited, to onboard pension services under the **System for Pension Administration** (Raksha) {SPARSH} initiative across **more than four lakh Common Service Centres** (CSCs) all over the country.

Key points
- The MoU will provide **last mile connectivity** to pensioners, especially those who reside in remote areas of the country and those who do not have the means or technical wherewithal to log on to SPARSH.
- For these pensioners, the service centres will become an **interface for SPARSH** and provide an effective medium for pensioners to perform profile update requests, register grievances and seek redressal, digital annual identification, pensioner data verification or simply fetch detailed information regarding their monthly pension.

About SPARSH
- SPARSH is an initiative of **Ministry of Defence** which aims at providing a comprehensive solution to the administration of pension to the defence pensioners.
- It is in line with the Government's vision of 'Digital India', 'Direct Benefit Transfer (DBT)' and '**Minimum Government, Maximum Governance'**.
- The system is **administered by DAD**, and caters to all the three Services and allied organisation.
- The system on roll-out is initially catering to the new retirees and subsequently being extended to cover the existing defence pensioners.
- The system caters to **all activities of the pension cycle namely**: Initiation and Sanction, Disbursement as well as Revision.

- SPARSH has been designed keeping defence pensioners at the centre, who will be given a **completely transparent** view of their pension account, through an online portal.
- It **captures and maintains a complete history** of events and entitlements of the pensioner – right from the date of commencement of pension to the date of cessation of pension due to the last eligible beneficiary.
- SPARSH has **fundamentally re-engineered the process** of pension disbursement – from generation of the Pension Payment Orders (PPOs) to Direct Benefit Transfer of pensions, with the motto of right pension delivered at the right time.

About CSC
- Common Service Centres are the **access points for delivery** of essential public utility services, social welfare schemes, healthcare, education, financial education and agriculture services, besides providing many B2C services in rural parts of the country.
- Common Service Centre Scheme is one of the mission mode projects under the **Digital India Programme.**

Environment

Annual Frontier Report 2022

Context

- Recently, United Nations Environment Programme (UNEP) has released the **Annual Frontier Report 2022** with the name Noise, Blazes and Mismatches: Emerging Issues of Environmental Concern.

Important chapters

- Listening to Cities: From **Noisy Environments** to Positive Soundscapes
- **Wildfires** Under Climate Change: A Burning Issue
- **Phenology**: Climate Change Is Shifting the Rhythm of Nature

Key points

- In the new report, UNEP has said that wildfires, noise pollution, and other looming environmental threats could cause widespread ecological damage, and need to be urgently addressed.
- The report draws attention to **emerging environmental concerns** with the potential to wreak regional or global havoc, if not addressed early.
- The report highlights the urgent need to address the **triple planetary crisis** of climate change, pollution and biodiversity loss.

Key highlights

Noise pollution

- Noise pollution has been termed as "**a raucous killer**" as unwanted, prolonged, and high-level sounds from road traffic, railways, or leisure activities, impair human health and well-being.
- Moreover, **chronic annoyance and sleep disturbance** caused by traffic can result in severe heart diseases and metabolic disorders with the very young, and mostly affect the elderly and marginalised communities near busy roads.

Phenology

- Phenology is the **timing of recurring life cycle stages**, driven by environmental forces, and how species interacting within an ecosystem, respond to changing conditions.
- Plants and animals in terrestrial, aquatic and marine ecosystems use temperature, day length or rainfall as **cues for when to bear fruit, migrate or transform** in other ways.

- Climate change, however, **disrupts these natural rhythms** as plants and animals are being pushed out of sync with their natural rhythms, leading to mismatches, such as when plants shift life cycle stages faster than herbivores.
- Local climatic signals that trigger migration for birds may **no longer accurately predict** conditions at their destination and resting sites along the route.
- Moreover, in crops, phenological shifts in seasonal variations **challenge food production**.

Wildfires

- The report has highlighted that between 2002 and 2016, an average of 423 million hectares of the land surface - **about the size of the European Union** – have burned.
- The report further project that the dangerous wildfires will likely become **more frequent, intense, and longer lasting**, including in areas previously unaffected by fires.
- Climate change can also prompt extreme wildfires, **generating lightning** that can ignite other fires.
- **Long-term effects on human health** extend beyond those who have been directly affected by the wildfires like those fighting wildfires or the evacuated or those who have lost homes. Wildfires also exacerbate impacts among those with pre-existing illness, women, children, the elderly, and the poor.
- Moreover, **black carbon and other pollutants** generated from wildfires can contaminate water sources, speed up glacier melt, trigger landslides and turn rainforests into carbon sinks.

Recommendations of the report

- **For noise pollution**: The report encourages urban planners to prioritise noise reduction by investing in urban infrastructure that creates positive soundscapes such as tree belts, green walls, and more green spaces in cities.
- **For phenological shift**: The report highlights the importance of conservation goals, such as maintaining suitable habitats and ecological connectivity, strengthening the integrity of biological diversity, and coordinating international efforts along migratory routes.
- **For wildfires:** The report calls for greater investment in reducing wildfire risks; developing prevention and response management approaches; and refinancing remote sensing capabilities.

Battery Swapping Scheme

Context
- Union budget 2022 has proposed a new policy to **promote battery swapping** technology to boost the Electric Vehicle (EV) industry, and therefore meet the **decarbonisation goals** of India.

What is battery swapping?
- Battery swapping is a service that allows EV drivers to **replace depleted battery** blocks for freshly charged ones at swap stations.
- The basic idea of battery swapping is the same as having an **electronic device** that can be fitted with fresh batteries for continuous use (like a remote) as opposed to having to charge it each time (like a mobile phone).
- Battery swapping technology is seen as a convenient option for EV owners to recharge their vehicles. It allows the owner to detach the battery from the vehicle and charge it remotely.
- As of now, Indian customers **do not have too many choices** of electric vehicles which offer this technology.

Battery swapping scheme
- The policy will initially focus on battery swap services for electric scooters, motorcycles, and three-wheeled auto rickshaws to give a boost to sectors like **last-mile delivery and ridesharing.**
- The government is likely to offer EV owners an incentive of up **to 20% of the total subscription** or lease cost of the battery, and this will be in addition to what they already get for buying clean vehicles.
- The government will also define battery design and charging standards for companies that want to set up swap stations to ensure the **batteries can be used across EV models of different automakers.**

Benefits of battery swapping scheme
- **Increase in demand**: With a sharp rise in electric two-wheeler manufacturers over the past few years, and the increase in EV adoption in the segment, the new policy would further consolidate India's EV infrastructure.
- **Develop EV infrastructure**: Introducing the battery swapping policy and recognising battery or energy as a service will help develop EV infrastructure and increase the use of EVs in public transportation. It would also motivate businesses engaged in delivery and car aggregation businesses to incorporate EVs into their fleet.

- **Make EVs affordable:** A battery is the most expensive part in an EV, and swapping allows companies to offer it as a service through lease or subscription models, bringing down the cost of owning and operating the vehicle
- **Address anxiety issue**: The introduction of the battery swapping could potentially address the range anxiety issue, which is one of the impediments to a mass-market transition from internal combustion engine-based vehicles to electric vehicles.
- **Improve air quality**: It will prove to a giant leap for the nation in advocating introduction of cleaner propulsion technologies and will improve air quality and reduce consumption of conventional fossil fuels.

Brick Kilns in India: MoEFCC Releases New Guidelines

Context
- Recently, Ministry of Environment, Forest and Climate Change (MoEF&CC) came up with **stringent standards for brick kilns** to reduce air pollution from brick kilns.

Key points
- The standards are significant as they have come after **seven years of deliberation**.
- In 2015, the MoEFCC came out with a draft notification that proposed different particulate matter (PM) emission standards for natural draught and induced draught kilns.
- At that time, **CSE (Centre for Science and Environment) had opposed** the draft stating that state pollution control boards (SPCB) would not be able to monitor all 70-80,000 operational brick kilns in the country on a regular basis, due to lack of personnel.
- After 7 years of deliberation, MoEFCC finally came up with MoEF&CC notification 2022 putting stringent conditions on the brick kilns in the country.

MoEFCC New Notification on Brick Kilns
- MoEF&CC, has mandated allowing brick kilns **only with zig-zag technology or vertical shaft** or use of piped natural gas (PNG) as fuel in the brick-making process.
- The introduction of **PNG as a fuel** is a welcome step since its use in older technology like Fixed Chimney Bull's Trench Kiln (FCBTK) will automatically reduce the PM emissions.
- Standard for PM emissions — **250 milligram per normal cubic** metre (mg / Nm3)

- Existing brick kilns shall be converted to either zig-zag technology or vertical shaft or use of PNG as fuel in brick making within a period of one year in case of kilns located within a 10 km radius of non-attainment cities and two years for other areas
- All brick kilns shall use approved fuel such as PNG, coal, fire wood and / or agricultural residues. Use of pet coke, tyres, plastic, hazardous waste shall not be allowed in brick kilns
- Brick kilns shall **construct permanent facility** for port hole and platform according to the norms laid down by the Central Pollution Control Board (CPCB)
- Brick kilns shall **follow fugitive dust emission control guidelines** as prescribed by concerned SPCBs
- The brick kiln owners shall ensure that the roads utilised for **transporting raw material or bricks are paved.**

Extended Producer Responsibility: Government Notifies New Guidelines

Context

- Recently, Ministry of Environment, Forest and Climate Change has notified the **guidelines on Extended Producers Responsibility** on plastic packaging under Plastic Waste Management Rules, 2016.

Key points

- The guidelines on extended producer responsibility coupled with prohibition of identified single use plastic items, with **effect from 1ˢᵗ July 2022**, are important steps for reducing pollution caused due to littered plastic waste in the country.
  - **Single use plastics** have low utility and high littering potential, and thus contribute significantly to the plastic pollution in the country.
- The guidelines will promote development of **new alternatives to plastics** and provide a roadmap for businesses to move towards sustainable plastic packaging.
- The guidelines not only provide a framework to strengthen the circular economy of plastic packaging waste, but also promote **development of new alternatives to plastics**.

Key guidelines

- The new rules classify plastics into **four categories:**
  - **Category 1** will include rigid plastic packaging;
  - **Category 2** will include flexible plastic packaging of single layer or multilayer (more than one layer with different types of plastic), plastic sheets and covers made of plastic sheet, carry bags, plastic sachet or pouches.
  - **Category 3** will include multi-layered plastic packaging (at least one layer of plastic and at least one layer of material other than plastic).
  - **Category 4** will include plastic sheet or like used for packaging as well as carry bags made of compostable plastics.
- According to the new rules, the producers, importers and brand-owners need to provide the **details of recycling certificates** only from registered recyclers along with the details of quantity sent for end-of-life disposal.
- A **centralised online portal** will be established by Central Pollution Control Board (CPCB) for the registration as well as filing of annual returns by producers, importers and brand-owners, plastic waste processors of plastic packaging waste.
  - This online platform would reflect the plastic packaging material introduced in the market by them in a financial year.
  - It shall also reflect the details regarding the audit of the producers, importers and brand-owners as well as recyclers or other waste processors of plastic packaging waste
- **Environmental compensation** shall be levied based upon polluter pays principle, with respect to non-fulfilment of EPR targets by producers, importers and brand owners.
  - This compensation will be used for protecting and improving the quality of the environment and preventing, controlling and abating environment pollution.
- A **committee shall be constituted** by the CPCB under chairpersonship of CPCB chairman, to recommend measures to the environment ministry for effective implementation of EPR.
- Under the new guidelines, **SPCBs shall submit annual report on EPR** portal with respect to its fulfilment by producers, importers and brand and plastic waste processors in the state/Union Territory to the CPCB.

About EPR

- Extended Producer Responsibility is a **legislative strategy** used by most industrialised nations to **promote chemical recycling** of plastic waste.
- Globally, EPR is considered as the **only viable strategy** to prevent landfilling of plastic waste.
- EPR covers reuse, recycling, use of recycled plastic content and end of life disposal by producers, importers and brand-owners.

Plastic Waste Management Rules, 2016

- The Plastic Waste Management Rules, 2016, mandate the generators of plastic waste to take steps to minimise it, ensure its segregated storage at source and hand it over to local bodies or agencies.
- The rules prescribe Extended Producer Responsibility (EPR) for producer, importer and brand owner for collection and recycling of plastic packaging waste.

Financial Constraints in Renewable Energy Sector

Context

- Recently, a standing committee on energy set up by the ministry of new and renewable energy (MNRE) has put forward a report where it has asked the government to explore new and innovative tools to deal with the **issue of financial constrains** in the renewable energy sector.

Key recommendations

- **Set up green banks**: Green Banks have emerged as an innovative tool for accelerating clean energy financing globally, So the government should explore setting up of a green bank system to address the persisting finance-related challenges being faced by the renewable energy sector in the country.
- **Prescribe Renewable Finance Obligation** (RFO): The committee also suggested that MNRE should explore the possibility of prescribing Renewable Finance Obligation on the lines of Renewable Purchase Obligation (RPO) for banks and financial institutions.
  - The Renewable Finance Obligation will make them invest a specific percentage of their investment in the renewable energy sector.
- **Priority Sector Lending:** The limit of loans for the renewable energy sector under priority sector lending should be increased and the MNRE should pursue this matter with the Ministry of Finance and the Reserve Bank of India.

- **Explore alternative funding avenues**: The committee also suggested that the ministry should explore innovative financing mechanisms and alternative funding avenues like Infrastructure Development Fund (IDF), Infrastructure Investment Trusts (InVITs), Alternate Investment Funds, Green/Masala Bonds, crowdfunding etc for the renewable energy sector.
- **Give special window to IREDA:** Indian Renewable Energy Development Agency (IREDA) should be given a special window for borrowing from the RBI at repo rate in line with other specialised financial institutions like NHB, SIDBI and NABARD to ensure availability of low-cost financial resources for the renewable energy sector.
- **Restructuring of loans**: The ministry should pursue the banks to restructure the loans in such a way that the EMI is kept higher in peak season of revenue generation and lower in the off-season.
- **Amend Electricity Act**: Electricity Act should be amended and a maximum period should be prescribed for according approvals/disposing of petitions by the State Electricity Regulatory Commissions.
- **Electricity (Late Payment Surcharge) Rules, 2021**: The committee recommended that the ministry should ensure proper implementation of the Electricity (Late Payment Surcharge) Rules, 2021 so that the developers get compensated for delays caused by discoms in payment of dues.
- **Payment of dues**: The ministry should pursue the states/discoms to clear dues on 'first in - first out' basis so that the oldest dues are paid first.

BILINGUAL

TARGET 5th June (2.0)
UPSC CSE 2022 Prelims
(Paper I + II)
COMPLETE BATCH
Starts Mar 1, 2022   6 PM to 9 PM

GOBAR-DHAN scheme

Context
• Recently, Prime Minister has launched **Gobar-Dhan (Bio-CNG) Plant**" in **Indore** under the overarching principles of "waste to wealth" and "circular economy" for maximising resource recovery.

Key points
• The plant is in line with the vision of creating "**garbage-free cities**" under the Swachh Bharat Mission Urban 2.0.
• PM had earlier launched the Swachh Bharat Mission Urban 2.0, with the overall vision of creating "Garbage Free Cities".

About the plant
• The Gobar-Dhan plant has a capacity to treat **550 tonnes of segregated wet organic waste** per day. The plant is expected to produce around 17,000 kg CNG and 100 tonnes of organic compost every day.
• Based on **zero-landfill models**, the plant will not generate rejects by maximising resource recovery.
• It is also expected to yield **multiple environmental benefits** like reduction in greenhouse gas emissions, providing green energy along with organic compost as fertiliser.
• The project has been implemented by Indore Clean Energy Pvt Ltd, a **Special Purpose Vehicle** set up by Indore Municipal Corporation (IMC) and Indo Enviro Integrated Solutions Ltd. (IEISL).
• IMC will purchase a minimum of **50% of CNG produced** by the Gobar-Dhan plant. In a first-of-its-kind initiative, the municipal corporation will run 400 city buses on the CNG.
• The government is working on introducing **75 more Bio-CNG plants** in 75 other districts and villages to benefit farmers in the animal husbandry sector.

About GOBAR-DHAN scheme
• **Ministry of Drinking Water & Sanitation** has launched the GOBAR (Galvanizing Organic Bio-Agro Resources) - DHAN scheme in **2018**.
• The scheme is being implemented as part of the Swachh Bharat Mission (Gramin).
• The scheme aims to **positively impact village cleanliness** and generate wealth and energy from cattle and organic waste.
• The scheme also aims at **creating new rural livelihood** opportunities and enhancing income for farmers and other rural people.

National Disaster Response Force (NDRF) | NDRF sends Relief Material to Ukraine

Context
• India through its National Disaster Response Force (NDRF) has sent relief material to Ukraine via Poland.
  o Ukrainian envoy Igor Polikha thanked India for sending humanitarian aid to his country.
• The NDRF has provided relief material including blankets, sleeping mats, and solar study lamps etc. for the people of Ukraine.

Recent Developments on Ukraine Russia War
• Recently, Russia's Foreign Minister said that Moscow is ready for talks to end the fighting in Ukraine but will continue to press its effort to destroy Ukraine's military infrastructure.
• The International Criminal Court (ICC) prosecutor has launched an investigation that could target senior officials believed responsible for war crimes, crimes against humanity or genocide.
• The invasion was denounced by the United Nations in a historic vote, as global brands exited Russia and the rouble hit record lows.

Important Points about National Disaster Response Force (NDRF)
• **About:** The National Disaster Management Act (NDMA), 2005 provides for the setting up of National Disaster Response Force (NDRF) for the purpose of specialist response to disaster or threatening disaster.
• **Legal Status:** National Disaster Response Force (NDRF) is a statutory body set up under NDMA, 2005.
• **Governing Authority:** The general superintendence, direction and control of the National Disaster Response Force (NDRF) shall vest in the NDMA.
• **Location of NDRF forces:** The NDRF battalions are located at 16 different locations in the country based on the vulnerability profile of country and to cut down the response time for their deployment at disaster site.

One Ocean Summit

Context
• One Ocean Summit is being organized by France from 9 to 11 February 2022
• While Addressing One Ocean Summit, Indian PM said that India has always been a maritime civilization and its ancient scriptures and literature talk about the gifts of the oceans.

o   At One Ocean Summit, he also said that the world's the security and prosperity of countries is linked to oceans.
o   He also said that India is committed to eliminating single-use plastic and will be happy to join France in launching a global initiative on single-use plastics.

Key Points
- **About:** The One Ocean summit is organised by France in Brest in cooperation with the United Nations and the World Bank.
- **Participation:** Various countries along with other stakeholders will participate in the One Ocean Summit.
    o   **One Ocean Summit** will be addressed by several other heads of states and governments from the United Kingdom, Germany, Japan, India, South Korea, and Canada.
- **Key Objectives:** The objective of the Summit is to mobilise the international community to take tangible action towards preserving and supporting healthy and sustainable ocean ecosystems.
    o   Commitments will also be made towards combating illegal fishing, decarbonising shipping and reducing plastic pollution during One Ocean Summit.
    o   One Ocean Summit will also focus on efforts to improve governance of the high seas and coordinating international scientific research.
- **Host:** One Ocean Summit is being held in light of French Presidency of the Council of European Union.
- **Significance:** One Ocean Summit presents an opportunity for all stakeholders to make a decisive contribution with tangible, bold, and actionable initiatives and commitments.

Open Cast Mine in Jharkhand

Context
- Recently, **five persons were found** dead in Jharkhand after part of an open cast coal mine caved in, in Dhanbad district.

What has happened?
- Official said that some persons from nearby villagers had **illegally entered the open cast mine** located at the Eastern Coalfields Limited (ECL).
- Later, a part of the overburdened area of the **mine caved in**, and four bodies were found at the spot.
- The incident has once again open up debate on improving the security at mines so that poor people don't risk their lives.

What is open cast mining?
- Open cast mining is a traditional **'cone-shaped' excavation** that is done for surface mining of coal. This type of mining does not deep shafts.
- Open cast mining **differs from extractive methods** that require tunnelling into the earth, such as long wall mining.
- Open-pit mines are used when deposits of commercially useful minerals or rocks are **found near the surface.**
- For minerals that occur deep below the surface, underground mining methods extract the valued material.

Reasons
- **Poverty**: The poor people, in a hope of earning money and sustaining their livelihood, risk their lives for a few sack of free coal.
- **Security lapse**: Open cast mining is not a well-guarded perimeter and trespassing is common in these areas. Also, due to overlapping of jurisdiction of local laws and CISF, coordination takes a hit.
- **Nexus**: Dhanbad is infamous for illegal quarrying of coal from abandoned. It has been going on for many years in complicity with coal mafias, police and politicians.

Impact of open cast mining on environment
- Open-cast mining **changes geological, hydrological and geotechnical conditions**.
- It **influences the existing ecological system** and landscape.
- The **dust and noise affect** not only the atmosphere and soil, but also the whole human living space in the exploited territories.
- Open-pit mines create a **significant amount of waste.** Almost one million tons of ore and waste rock can move from the largest mines per day, and a couple thousand tons moved from small mines per day.

Purple Revolution

Context

- Recently, the Union Minister of Personnel, Public Grievances & Pensions has the chaired the **District Development Coordination & Monitoring Committee** (DISHA) meetings of districts Doda and Kishtwar, and has informed that Lavender has been designated as Doda brand product.

Key points

- **Doda is the birthplace of India's Purple Revolution** (Aroma Mission) and lavender can be promoted under 'One District, One Product' initiative to attract Agri- StartUps, entrepreneurs and farmers.
- **Rattle Project**, which will along with Pakkal-Dul project and Kiru project make the entire region Power-surplus, has been revived to achieve its full potential.

Aroma Mission

- CSIR-IIIM's Aroma Mission is **providing means of livelihood** to budding farmers and Agri-Technocrats and promoting the spirit of entrepreneurship giving a boost to Start-Up India campaign.
- Regarding the purple revolution, awareness programmes should be organised to **showcase the lucrative aspects** of lavender cultivation so that start-ups under Aroma Mission would be encouraged.
- This would also **enhance the image of Doda** District that is the birthplace of Purple Revolution.

Purple revolution in India

- "Purple Revolution" is **Jammu & Kashmir's contribution to "Start-ups India**.
- It is also called as aroma mission, and was launched by **Union Ministry of Science & Technology** through the Council of Scientific & Industrial Research (CSIR).
- CSIR had introduced high-value essential oil-bearing lavender crop through its Jammu based laboratory, **Indian Institute of Integrative Medicines** (IIIM) for cultivation in districts Doda, Kishtwar, Rajouri, among others.
- In a brief span of time, aroma/lavender cultivation has become a **popular option in farming** for agricultural Start-up.

Aroma mission phase-2

- CSIR has launched Phase-II of Aroma Mission after the completion of Phase-I.
- In addition to IIIM, several other CSIR institutes are also now participating in the Aroma Mission.
- In the second Phase of Aroma Mission, it is proposed to engage over 45,000 skilled human resources with the aim of benefitting more than 75,000 farming families across the country.

Aroma Mission Phase-1

- During Phase-I of Aroma Mission, CSIR helped cultivation on 6000 hectares of land and covered 46 aspirational districts across the country.
- More than 44,000 persons have been trained and several crores of farmers' revenue were generated in the first phase. Major crops-cropping patterns in various parts of the country.

Solar Rooftop Plant

Context

- Recently, **Ministry of New and Renewable Energy** (MNRE) has simplified procedure for solar rooftop plant and has **allowed households to install rooftop solar plants** by themselves or through any vendor of their choice under the **Rooftop Solar Programme.**

Key points

- **Previously**, residential consumers were required to source the rooftop solar plant from listed vendors only to avail subsidies and other benefits under the Rooftop Solar Programme.
- According to the new simplified procedure, a **national portal** for registering applications from the beneficiary, approval thereof and tracking progress will be developed.
- The household beneficiary who wishes to install **rooftop solar (RTS) plant** under the new mechanism will apply on the national portal.
- **What is a solar rooftop system?**
- In a solar rooftop system, the **solar panels are installed in the roof** of any residential,
- commercial, institutional and industrial buildings.
- This can be of two types
  - Solar Rooftop System with storage facility using battery, and
  - Grid Connected Solar Rooftop System.

What is a Solar Rooftop System with Storage facility?

- Such rooftop system has battery as storage facility. The **solar electricity is stored** in the battery and can be utilized during night also when the **sun is not available**.

What is a Grid Connected Solar Rooftop System?

- In grid connected rooftop or small SPV system, the **DC power generated from SPV panel** is
- converted to AC power using power conditioning unit and is fed to the grid depending on the capacity of the system installed at institution/commercial establishment or residential complex.
- These systems generate power during the day time which is utilized fully by powering captive loads and **feed excess power to the grid** as long as grid is available.
- In case, where solar power is not sufficient due to cloud cover etc., the captive loads are served by drawing power from the grid.

About Grid Connected Solar Rooftop Programme

- This scheme was launched to achieve cumulative capacity of **40,000 MW** from Rooftop Solar (RTS) Projects by the year **2022**.

Features

Component A: Central Financial Assistance (CFA) to Residential sector - 4 GW

- CFA @ 40% for capacity up to 3 kWp
- CFA @ 20% for capacity beyond 3 kWp and up to 10 kWp
- CFA @ 20% for GHS/RWA capacity up to 500 kWp (limited to 10 kWp per house and total upto 500 kWp)

Component B: Incentives to DISCOMs – for initial 18 GW Capacity

Progressive incentive for Discoms for achievements above baseline (the cumulative RTS capacity installed at the end of previous financial year).

- No incentives for capacity addition up to 10%
- 5% incentives for addition beyond 10% and up to 15%
- 10% incentives for addition beyond 15%

Sustainable Cities India Program

Context

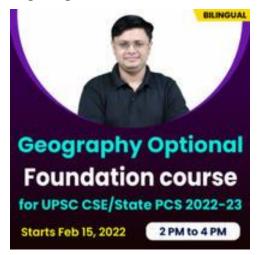- Recently, **World Economic Forum and the National Institute of Urban Affairs** (NIUA) has signed an MoU (Memorandum of Understanding) to collaborate on a jointly designed 'Sustainable Cities India program'.

Sustainable Cities India Program

- It aims to create an enabling environment for cities to generate **decarbonization solutions** across the energy, transport, and the built environment sectors.
- This initiative is particularly noteworthy as it comes after India's commitment to turn net zero by 2070 as a climate mitigation response at COP26.
- The 'Sustainable Cities India program' intends to enable cities to decarbonize in a systematic and sustainable way that will **reduce emissions** and deliver resilient and equitable urban ecosystems.
- The Forum and NIUA will adapt the **Forum's City Sprint process and Toolbox of Solutions** for decarbonization in the context of five to seven Indian cities across two years.
- City Sprints will help to **jumpstart and/or accelerate net zero** planning and action.
- The City Sprint process uses the **Toolbox of Solutions - a digital platform** containing over 200 examples of clean electrification, efficiency and smart infrastructure best practices and case studies across buildings, energy systems and mobility from over 110 cities around the world.
- The City Sprint process will also enable cities to **run pilot solutions** and, based on findings, India will be able contribute 10 to 40 best practice case studies which will be integrated into the Toolbox of Solutions and showcased across the world.

Significance

- As per the World Economic Forum's Global Risks Report 2022, densely populated countries that are highly dependent on agriculture, such as India, are especially **vulnerable to climate insecurity.**
- Decarbonization in cities is a real opportunity to **keep global warming well below 2°C** and cities in India can make an enormous contribution in reaching this goal.

About Net Zero Carbon Cities
- The World Economic Forum's Net Zero Carbon Cities' mission is to create an enabling environment for clean electrification and circularity, resulting in urban decarbonization and resilience.
- The program aims to do this by **fostering public-private collaboration** to bridge the gap across the energy, built environment and transport sectors.

About NIUA
- Established in 1976, the National Institute of Urban Affairs (NIUA) is India's leading national **think tank on urban planning** and development.
- As a hub for the generation and dissemination of cutting-edge research in the urban sector, NIUA seeks to **provide innovative solutions** to address the challenges of a fast urbanizing India, and pave the way for more inclusive and sustainable cities of the future.

TERI's World Sustainable Development Summit (WSDS)

Context
- Recently, the Prime Minister of India delivered the inaugural address at The Energy and Resources Institute's (TERI) World Sustainable Development Summit via video message.

Key Points
- **Background:** The World Sustainable Development Summit (WSDS) started in 2001 by the TERI.
- **About:** The World Sustainable Development Summit (WSDS) is the annual flagship Track II initiative of The Energy and Resources Institute (TERI).
  - This year, WSDS series has marked 20 years in its journey of making 'sustainable development' a globally shared goal.
  - WSDS was earlier known as Delhi Sustainable Development Summit.
- **Mandate:** WSDS strives to provide long-term solutions for the benefit of global communities by assembling the world's most enlightened leaders and thinkers on a single platform.
- **Participation:** The World Sustainable Development Summit (WSDS) provides a platform to bring together thought leaders, heads of state and government, scholars, corporates, youth groups, and civil society representatives from across the world.

Key Details
- **About:** World Sustainable Development Summit 2022 is being held in a hybrid format in New Delhi, India.
- **Key Participants:** President of the Dominican Republic is scheduled to attend the summit along with President of the Cooperative Republic of Guyana and Deputy Secretary General of United Nations.
- **Theme:** The World Sustainable Development Summit 2022 Theme is 'Towards a Resilient Planet: Ensuring a Sustainable and Equitable Future'.

Key Points
- **About:** TERI is a non-profit, independent, multi-dimensional organization, with expertise in research, policy, consultancy and implementation.
- **TERI Headquarter:** Headquartered in New Delhi, TERI has regional centres and campuses in Gurugram, Bengaluru, Guwahati, Mumbai, Panaji, and Nainital.
- **Mandate:** TERI is working towards creating innovative solutions in energy, environment and sustainable development to accelerate India's transition to a cleaner future.
- **Focus Areas:** TERI's work across sectors is focused on-
  - Promoting efficient use of resources
  - Increasing access and uptake of sustainable inputs and practices
  - Reducing negative impact on environment and climate
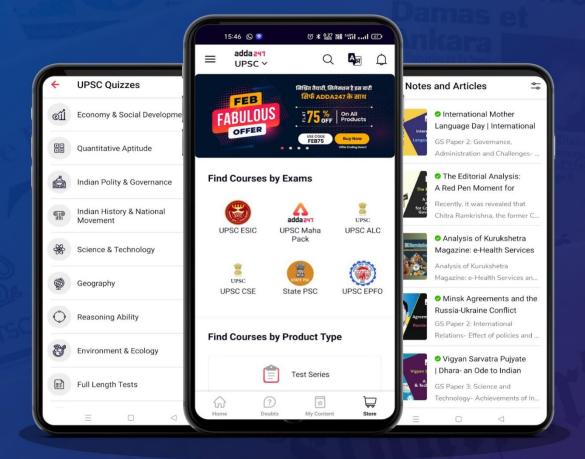
Science and Technology

PSLV-C52/EOS-04 Mission of ISRO

Context
- Recently, the Indian Space Research Organisation (ISRO) successfully launched its earth observation satellite EOS-4 and two co-passenger technology demonstrator and scientific satellites.
- Three satellites namely EOS-04, INSPIREsat-1 and INST-2TD were injected successfully into a sun-synchronous polar orbit of 529 km.

Key Points
- **About the Mission:** The PSLV-C52/EOS-04 mission was the country's first mission this year, in fact, it was the first mission since the failure of the GSLV F10 mission in August 2021.
- **About EO-04:** It is a radar imaging satellite capable of providing high-quality images under all weather conditions.
- **Weight & Mission life of the Satellite:** EOS-04 is a 1,700kg satellite. The satellite has a mission life of 10 years.
- **Application of the EOS-**04: It can be used to capture images for agriculture, forestry, flood mapping, soil moisture and hydrology.

Other Two Satellites
In addition to EOS-04, two other satellites namely INSPIREsat-1 and INST-2TD were injected successfully into a sun-synchronous polar orbit. Key Details about these satellites are given below-
- **INS-2DT technology demonstrator satellite**: It has a thermal imaging camera.
- **Application:** It can help in the assessment of land and water surface temperatures apart from mapping vegetation.
- **InspireSat-1 satellite:** It was developed by the Indian Institute of Space Science and Technology, University of Colorado, US, Singapore's Nanyang Technological University, and National Central University in Taiwan.
  - Application: This satellite will use two instruments to study ionosphere dynamics and the Sun's coronal heating process.

Other Expected ISRO Missions of 2022
- Three satellites OCEANSAT-3, INS-2B, ANAND will be launched aboard PSLV-C53 in March and Micro SAT onboard Small Satellite Launch Vehicle (SSLV) in April this year.
- The launch of GSAT-24 which is a communication satellite is also scheduled during the first quarter of 2022 aboard the Arianespace's Ariane 5.

Machine to Machine communication (M2M) sector

Context
- Government of India has identified **M2M/ Internet of Things** (IoT) is one of the fastest emerging technologies across the globe, providing enormous beneficial opportunities for society, industry, and consumers.

Government steps
Government has undertaken various steps to facilitate wider proliferation and innovation in Machine-to-Machine communication (M2M) sector.
- **Guidelines for registration of M2MSP Service Providers** and WPAN/WLAN Connectivity Providers have been issued to address concerns like connectivity with TSPs, KYC, traceability and encryption. Registration shall be carried out at field offices of DoT spread across the country.
- Though the existing Access Service Providers were already enabled to provide connectivity to the M2M/IoT networks, through the new licenses, an **independent category of Service providers** has been enabled to create, operate and provide Network for Interconnection of M2M/IoT devices.
- Released **13-digit numbering plan** exclusively for M2M/IoT devices connected through Mobile networks.
- DoT has (Department of Telecommunication) has permitted use of embedded SIMs by allowing Telecom Service Providers to **configure them Over The Air** (OTA).
  - This has enabled availability of sufficient numbering resources and led to a robust framework for mobile M2M eco-system in the country.
- In 2015, the government had unveiled the **roadmap for machine-to-machine (M2M)** communications which will act as a reference document for all such deployments and enable it to realise policy goals of 'Make in India' and 'Digital India'.

What is M2M?
- M2M, is the acronym for **Machine-to-Machine** communication.
- It is an emerging area in the field of **telecom technologies**.
- Machine to machine (M2M) refers to technologies that allow **both wireless and wired** systems to communicate with other devices of the same ability.

About M2M communication technology

- M2M uses a device (such as a sensor or meter) to capture an event, which is relayed through a network (wireless, wired or hybrid) to an application, that translates the **captured event into meaningful information**
- Apart from M2M, other terms are also being used to describe such communication - **Internet of Things** (IoT), Internet of Everything, Embedded Wireless, **Smart systems** (Homes, Cities, Meters, Grids etc.) with slightly different attributes to each term.
  - IoT is connected network of embedded devices capable of having M2M communication without human intervention.
- M2M Communication when **combined with logic of cloud services** and remote operation becomes "Smart".

M2M infrastructure

A typical M2M network consists of following building blocks:

- Wide area Network (WAN)
- Field area Network (FAN)
- Neighborhood area Network (NAN)
- Home area Network (HAN)/ Building Area Network (BAN) etc.
- Local area Network (LAN)

Application of M2M

- **Transportation & Automotive**: Possible M2M applications in the transportation and automotive.
- sectors include, Vehicle driver performance, fuel consumption, GPS tracking, E-Toll, Prevention of Vehicle Theft, Traffic control, Smart Parking, Emergency call (eCall) etc.
- **Utilities**: M2M applications in this domain will be used to monitor and control the generation, transmission, Distribution and consumption by employing intelligent devices.
  - Smart meters – water, energy & fuel consumption for home & industry, smart grid – monitor.
  - load in real time, Electric Vehicle Charging Infrastructure are a few examples under this category.
- **Financial Transactions in Retail**: In the case of remote located wireless/wired Point of Sale (PoS) terminals i.e., ATM machines (cash replacement, repair diagnostics, paper availability etc.), M2M modules are installed to provide communication for credit or debit card on-line financial transactions.

- **Home/Buildings**: Home /Building Automation deploy M2M modules & sensors in various utilities available in Home to measure and control energy, home health monitoring, HVAC, lighting, solar energy, wind energy and Building alarms - security, fire, intrusion, emergency
- **Security and Surveillance**: Applications in use are Alarm System Monitoring, Video Surveillance, real time monitoring, video analytics, in banking, retail, buildings in addition to smart cards and Facility management.
- **Healthcare**: Smart body sensors, Remote patient monitoring of residential/ institutional, communicate with smart phone and central server.M2M can be used in primary health centres in rural areas to enable speedy diagnosis and timely treatment.
- **Consumer Electronics**: Use cases include Remote monitor and control, interoperability between e-Readers, Gaming Devices, Picture Frames, TVsand Refrigerators etc.

Policy on Synthetic Biology

Context

- Recently, Department of Biotechnology has released a **draft foresight paper on synthetic biology** and has stressed upon the need for a national policy that can consolidate India's stand on the issue.

What is synthetic biology?

- Synthetic biology meaning: Synthetic biology refers to the science of using **genetic sequencing, editing, and modification** to create unnatural organisms or organic molecules that can function in living systems.
- Synthetic biology enables scientists to **design and synthesise new sequences** of DNA from scratch.

Synthetic biology applications

- The applications of synthetic biology ranges from **developing synthetic organisms** for vaccination to **creating natural products** in a lab such as vanillin, (the organic compound extracted from vanilla seeds), which can now be grown in yeasts with additional plant genomes.
- **Pharmaceutical industry:** Synthetic biology can be used to make natural compounds such as artemisinin that is used for the treatment of malaria and Car T cell therapy for cancer treatment.
- **Fashion industry**: Some companies are exploring the possibility of dyeing jeans without producing hazardous waste.

- **Agriculture**: Companies are also delivering fixed nitrogen to plants instead of using fertilisers, engineering microbes to create food additives or brew proteins.

Policy on synthetic biology: Why needed?

- **Rapid growth**: Synthetic biology is rapidly evolving with new discoveries happening every year; thus, it is time to create a policy for synthetic biology now more than ever. Soon we will start to see some products and we need to be ready with the regulatory framework.
- **Risk vs benefits**: There is also a need to look at the benefits of the products and the risk it poses to biodiversity.

Synthetic biology in India

- **India is rich in biodiversity**, that is the benefit. But it can also have adverse impacts such as escaping into the environment and recombining with existing biodiversity.
- All these **prospects have to be studied** before devising a policy on synthetic biology.

Ramanujan Prize for Young Mathematicians

Why in News?

- Recently, the Ramanujan Prize for Young Mathematicians was awarded to Professor Neena Gupta, a mathematician of the Indian Statistical Institute in Kolkata.
- Neena Gupta received the Ramanujan Award for the year 2021 for her outstanding work in affine algebraic geometry and commutative algebra.

What Ramanujan Prize is given for?

- Ramanujan Prize for Young Mathematicians is given to young mathematicians less than 45 years of age who have conducted outstanding research in a developing country.

Who gives Ramanujan Prize for Young Mathematicians?

- Ramanujan Prize for Young Mathematicians is awarded annually to a researcher from a developing country.
- **Ramanujan Award is** funded by the Department of Science and Technology (DST) of the Government of India in association with ICTP (International Centre for Theoretical Physics) and the International Mathematical Union (IMU).

In whose memory Ramanujan Prize for Young Mathematicians is given?

- Ramanujan Prize for Young Mathematicians is supported by DST in the memory of Srinivasa Ramanujan.
- He was a genius in pure mathematics who was essentially self-taught and made spectacular contributions to elliptic functions, continued fractions, infinite series, and analytical theory of numbers.

Who is Neena Gupta?

- Professor Gupta's solution for solving the Zariski cancellation problem, a fundamental problem in Algebraic Geometry, earned her the 2014 Young Scientists Award of the Indian National Science Academy (NSA).
- The NSA described her solution as 'one of the best works in algebraic geometry in recent years done anywhere'.
- The problem was posed by one of the most eminent founders of modern Algebraic Geometry, Oscar Zariski, in 1949.

SARAS 3 Radio Telescope

Context

- Recently, Indian researchers at SARAS 3 Radio Telescope have conclusively refuted a recent claim of the discovery of a radio wave signal from cosmic dawn.
  - Cosmic Down the time in the infancy of our Universe when the first stars and galaxies came into existence.

What was the Discovery of Radio Wave Signal from Cosmic Dawn?

- **Background of the Discovery:** In 2018 a team of researchers from Arizona State University (ASU) and MIT in the US detected a signal from stars emerging in the early universe using data from the EDGES radio telescope.
  - The study published in the journal Nature created much excitement in the astronomy community around the world.
- **About Discovery:** ASU/MIT team had claimed the discovery of a radio wave signaling the birth of the First Stars, which was also hailed by Harvard astrophysicist Avi Loeb as worthy of two Nobel prizes.
  - However, the world awaited confirmation from independent researchers.

- **Refuting the Discovering:** Utilising the indigenously invented and built SARAS 3 radio telescope, researchers from Raman Research Institute, an autonomous institute of the Department of Science & Technology, Govt. of India refuted this claim.

Key Points

About: SARAS is a niche high-risk high-gain experimental effort of RRI initiated and led by Prof. Ravi Subrahmanyan, along with Prof. N. Udaya Shankar.

- **Objective:** SARAS aims to design, build and deploy in India a precision radio telescope to detect extremely faint radio wave signals from the depths of time, from our "Cosmic Dawn" when the first stars and galaxies formed in the early Universe.

- The signal from Cosmic Dawn is expected to arrive on Earth stretched in wavelength to metres and lowered in frequency by the expansion of the Universe to lie in the radio frequency band 50-200 MHz.

Internal Security

Border Infrastructure and Management Scheme

Context

- Recently, Ministry of Home Affairs has decided to continue the umbrella scheme of Border Infrastructure & Management (BIM) from **2021-22 to 2025-26** with a total allocation of Rs. 13,020 crores.

Key points

- "**Border Infrastructure and Management**" (BIM) is a central sector scheme and it has been continued over the 15th Finance Commission cycle from 2021-22 to 2025-26.
- The scheme will **strengthen the border infrastructure** for improving border management, policing and guarding the borders.
- The BIM scheme will help in the creation of infrastructure such as construction of border fence, border flood lights, technological solutions, border roads and Border Outposts (BOPs)/Company Operating Bases (COBs) to secure the Indo-Pakistan, Indo-Bangladesh, Indo-China, Indo-Nepal, Indo-Bhutan and Indo-Myanmar borders.

Importance of border infrastructure

- **Resilience against security challenges**: Border infrastructure helps in dealing with transnational issues like cross-border terrorism, infiltration of armed militants and insurgents, narcotics and arms smuggling; illegal migration; left-wing extremism and separatist movements fuelled by external powers.
- **Better trade relations**: Robust border infrastructure helps in building ties with the neighbouring countries. Example: Border Haats with Bangladesh.
- **Inclusive growth**: Border road infrastructure plays a significant role in the overall development of the region, especially in harsh terrains such as northeast and Jammu & Kashmir.
- **Unravel tourism**: Proper road infrastructure would help in promoting tourism in the lofty Himalayas.
- **Maintaining peace and stability**: Border road infrastructure helps in maintaining peace and stability in the border areas.
- **Disaster management**: Better border infrastructure in the difficult and harsh terrains of Indian borders will make the country prepared and self-sufficient to handle the wide range of disasters.

Government steps to improve border infrastructure

- In 1960, Jawaharlal Nehru laid the foundation of the **Border Roads Organization** (BRO), under the aegis of Ministry of Road Transport & Highways, to provide border infrastructure including roads, bridges, highways, airports, tunnels, and buildings.
- Government launched a **Comprehensive Integrated Border Management System** (CIBMS) to improve the capability of Border Security Force in detecting and controlling the cross border crimes like illegal infiltration, smuggling of contraband goods, human trafficking and cross border terrorism etc.
- **Border Area Development Programme** (BADP) is an initiative of the Ministry of Home Affairs, Government of India to adopt a comprehensive approach to border management.
- **Bharatmala Pariyojana**: One of the objective of the scheme is to better border road infrastructure that would ensure greater maneuverability, while also boosting trade with neighbouring countries.

Ex Cobra Warrior 22

Context

- Indian Air Force will participate in a multi nation air exercise named 'Ex Cobra Warrior 22' at Waddington, UK from 06 to 27 March 2022.
- India will be participating in the Cobra Warrior 22 exercise for the first time.

What is Ex Cobra Warrior 22?

- **About:** Ex Cobra Warrior 22 is UK's (Royal Airforce) one of the largest exercises conducted annually.
  - Ex Cobra Warrior 22 will involve air-to-air operations such as aircraft interceptions and mock dogfights and simulated ground attacks.
- **Mandate:** Ex Cobra Warrior 22 aimed at providing operational exposure and share best practices amongst the participating Air Forces, thereby enhancing combat capability and forging bonds of friendship.
- **Participating Countries:** Ex Cobra Warrior 22 will see participation of many countries including United Kingdom, Sweden, Saudi Arabia and Bulgaria.

- **India's Participation:** IAF Light Combat Aircraft (LCA) Tejas will participate in the exercise along with fighter aircraft of UK and other leading Air Forces.
  - This will be the first-ever outing of LCA-Tejas in the International air exercise.
  - This will be a platform for LCA Tejas to demonstrate its manoeuvrability and operational capability.
  - IAF C-17 aircraft will provide the necessary transport support for induction and de-induction.

EX DHARMA GUARDIAN-2022

Why EX DHARMA GUARDIAN 2022 in news?
- A joint military exercise, "EX DHARMA GUARDIAN-2022", between India and Japan is to be conducted at Foreign Training Node, Belagavi (Belgaum, Karnataka).

Key Facts

About: Exercise DHARMA GUARDIAN 2022 is an annual training event which is being conducted in India since 2018.
- **Countries involved in EX DHARMA GUARDIAN**: It is a series of military training exercises undertaken by India with various countries.
- **Significance of EX DHARMA GUARDIAN 2022:** Exercise DHARMA GUARDIAN with Japan is crucial and significant in terms of security challenges faced by both nations in the backdrop of current global situation.
  - "Exercise Dharma Guardian" will enhance the level of defence co-operation between Indian Army and Japanese Ground Self Defence Forces.
  - This in turn will further foster the bilateral relations between the two nations.
- **Scope of DHARMA GUARDIAN 2022**: The scope of DHARMA GUARDIAN 2022 exercise covers platoon level joint training on operations in jungle and semi urban/urban terrain.

Key Activities
MARATHA LIGHT INFANTRY Regiment of the Indian Army and Regiment of Japanese Ground Self Defence Forces (JGSDF) are participating in the exercise DHARMA GUARDIAN 2022 this year.
- The aim is to share experiences gained during operations in order to enhance inter-operability in planning & execution of various operations in jungle & semi urban/ urban terrain.

- **The 12 days long joint exercise schedule includes-**
  - House interventions drills,
  - Raid on terrorist hideouts in semi urban terrain,
  - Combat first aid,
  - Unarmed combat & close quarter combat firing where both sides will jointly train,
  - Plan and execute a series of well-developed tactical drills for neutralisation of likely threats.

Exercise 'Eastern Bridge-VI'

Why Exercise 'Eastern Bridge-VI' in news?
- Recently, Exercise Eastern Bridge-VI (2022) was successfully conducted at Air Force Station Jodhpur from 21 to 25 February 2022.

What is Exercise 'Eastern Bridge-VI'?
- **About:** Exercise Eastern Bridge-VI is a bilateral exercise between India and Oman. Sixth edition of Exercise 'Eastern Bridge-VI' was held recently in India.
- **Participation:** Royal Air Force of Oman (RAFO) participated with Indian Air Force (IAF) in the Eastern Bridge-VI exercise.
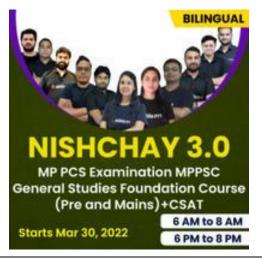
What is the Objective of 'Eastern Bridge-VI'?
- **'Eastern Bridge-VI' is** aimed at providing operational exposure and undertaking mutual exchange of best practices, towards enhancing operational capabilities of both the Air Forces.
- 'Eastern Bridge-VI' will also boost India-Oman cooperation in other areas, especially in the geo-strategic area.

Importance of 'Eastern Bridge-VI'
- The **'Eastern Bridge-VI'** exercise provided an opportunity for fruitful interaction between IAF and RAFO elements through mutual exchange of experience and operational knowledge.
- Exercise **'Eastern Bridge-VI'** also provided avenues of cultural exchanges between the personnel of both countries.

MILAN 2022

Why MILAN 2022 in news?

* The latest edition of Indian Navy's multilateral exercise MILAN 2022 is scheduled to commence from 25 Feb 22 in the 'City of Destiny', Visakhapatnam.

Key Facts about MILAN 2022

* **About:** MILAN 22 is being conducted over a duration of 9 days in two phases with the harbour phase scheduled from 25 to 28 February and Sea Phase from 01 to 04 March.
* **MILAN 2022 Theme:** The theme of the MILAN 2022 exercise is **'Camaraderie – Cohesion – Collaboration'**.
* Aim: The aim of the MILAN exercise is to hone operational skills, imbibe best practices and procedures.
  * MILAN 2022 aims to enable doctrinal learning in the maritime domain, through professional interaction between friendly navies.
  * MILAN 2022 also aims to project India as a responsible maritime power to the world at large.
* **Participation:** MILAN 22 will witness its largest ever participation, with more than 40 countries sending their warships/ high level delegations.
  * The high profile foreign delegates will comprise highest level naval leadership, agency heads, Ambassadors and equivalent.
* **Significance:** India is celebrating the 75th year of its independence in 2022, and MILAN 22 provides an opportunity to commensurate this milestone with our friends and partners.
  * MILAN 2022 would be larger in 'scope and complexity' with focus on exercises at sea including exercises in surface, sub-surface and air domains and weapon firings.

What is MILAN Exercise?

* **About:** MILAN is a biennial multilateral naval exercise incepted by Indian Navy in 1995 at Andaman and Nicobar Command.
* **Frequency:** Exercise MILAN has been held biennially except for 2001, 2005, 2016 and 2020.
  * While the 2001 and 2016 editions were not held due to International Fleet Reviews, the 2005 edition was rescheduled to 2006 due to the 2004 Tsunami.
  * 2020 edition of MILAN was postponed to 2022 due to COVID-19.

* **Participation of Countries:** In the first edition (MILAN 1995), only four countries, viz Indonesia, Singapore, Sri Lanka and Thailand participated in the MILAN Exercise.
  * Participation increased from six regional countries to 18 countries in 2014 which included IOR littorals.
  * MILAN 22 will witness its largest ever participation, with more than 40 countries sending their warships/ high level delegations.

Modernization of Police Forces (MPF) Scheme

Context

* Recently, the Union Government has approved continuation of umbrella scheme of Modernisation of Police Forces (MPF) for the period 2021-22 to 2025-26.
* The approval for Police force modernization scheme for the period 2021-22 to 2025-26, moves forward the initiative of the Union Home Minister to modernise and improve the functioning of Police Forces of States and Union Territories.
* Modernization of Police Forces (MPF) scheme comprises all relevant sub-schemes that contribute to modernization and improvement with a total Central financial outlay of Rs.26,275 crore.

Key Points

* **About:** Scheme for Modernisation of State Police Forces (MPF Scheme) is being implemented by the union government since 1969-70 for reforming the state police forces.
* **Ministry:** Ministry of Home Affairs (MHA) is responsible for implementing the Modernization of Police Forces (MPF) Scheme.
* **Funding:** Modernization of Police Forces (MPF) Scheme is a centrally sponsored scheme. Under the Scheme-
  * The States are grouped into two categories, namely Category 'A' and Category 'B' for the purpose of funding both under 'Non-Plan' and Plan.
  * Category 'A' States, namely, J&K and 8 North Eastern States including Sikkim will be eligible to receive financial assistance on 90:10 Centre: State sharing basis.
  * The remaining States will be in Category 'B' and will be eligible for financial assistance on 60:40 Centre: State sharing basis.
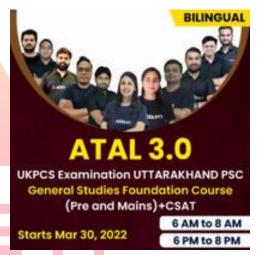
Key Objectives

- To gradually reduce the dependence of the State Governments on the Army and the Central Armed Police Forces to control internal security and law and order situations.
  - o This is to be done by equipping the State Police Forces adequately and strengthening their training infrastructure.
- To strengthen police infrastructure at cutting edge level by construction of secure police stations, training centres, police housing (residential), equipping the police stations with the required mobility, modern weaponry, communication equipment and forensic set-up etc.

Key Features

- Provision has been made under the Scheme for internal security, law and order, adoption of modern technology by Police, assisting States for narcotics control and strengthening the criminal justice system by developing a robust forensic set-up in the country.
- The Scheme for modernization of State police forces has a Central outlay of Rs.4,846 crore.
- To develop operationally independent high-quality forensic sciences facilities in States/Union Territories for aiding scientific and timely investigation through modernization of resources.
  - o A central Scheme for Modernisation of Forensic Capacities with outlay of Rs.2,080.50 crore has been approved.

- Central outlay of Rs.18,839 crore has been earmarked for security related expenditure for the Union Territories of Jammu & Kashmir, insurgency affected North Eastern States and Left Wing Extremism (LWE) affected areas.
- With the implementation of 'National Policy and Action Plan' for combating LWE, the LWE violence incidents have come down drastically.
  - o To further pursue this accomplishment, six LWE related schemes with Central outlay of Rs.8,689 crore have been approved.
  - o These schemes include Special Central Assistance (SCA) to Most LWE Affected Districts & Districts of Concern to consolidate the gains.
- For raising of India Reserve Battalions/Specialised India Reserve Battalions, Central outlay of Rs.350 crore has been approved.
- Central sector scheme of 'Assistance to States & Union Territories for Narcotics Control with outlay of Rs.50 crore has been continued.

History, Art & Culture

DEVAYATANAM

Why DEVAYATANAM in news?

- Recently, Union Minister for Culture inaugurated the conference on Indian Temple Architecture titled "DEVAYATANAM – An Odyssey of Indian Temple Architecture".
- The Union Government has also proposed Hoysala temples of Belur and Somnathpur to the UNESCO World Heritage.

Devayatanam: Conference on Indian Temple Architecture

- **About:** In a celebration under Azadi Ka Amrit Mahotsav, Archaeological Survey of India (ASI) is organizing a two-day international conference 'Devayatanam- An odyssey of Indian temple architecture.
  - The Conference on Indian Temple Architecture is in line with 5 V's, i. e. Vikas (development), Virasat (heritage), Vishwas (trust), Vignan (knowledge).
  - These are expected to lead us to becoming a vishwaguru so that India shows the world the way.
- **Importance:** Conference on Indian Temple Architecture deliberated upon the philosophical, religious, social, economic, technical, scientific, art and architectural aspects of temple.
- **When and Where?**
  - 'Devayatanam – An odyssey of Indian temple architecture is being celebrated on 25th & 26th February, 2022 at Hampi, Karnataka.
- **Objective:** The aim of the conference on Indian Temple Architecture is to create interest among scholars and students alike, to learn and respect our heritage.
  - Conference on Indian Temple Architecture provides a platform to discuss, deliberate and disseminate to the world the grandeur of Indian temples, art and architecture.

Importance of Temples

- Approximately 10 of India's 40 UNESCO World Heritage Inscriptions are Hindu Temples in different architectural styles, patterns and symmetry.
- Beautifully carved ancient temples are testimony to our glorious history, art, tradition, science & technology and various aspects and their study helps us in connecting the present with the past.
- The temples promote unity, integrity, and civilization. They simultaneously-
- Provide spiritual well-being to the soul,
- Enlightenment through education,
- Economic opportunities to the local community,
- A creative outlet for the craftsmen, artists and artisans, and
- Repository of our culture, and glory that shades on our past.

Maharaja Surajmal

Context

- Recently, the Prime Minister has paid tributes to Maharaja Surajmal on his birth anniversary (Jayanti).

Key Points

- **Birth:** Maharaja Surajmal was born on 13 February 1707 in the kingdom of Bharatpur, Rajasthan. Maharaja Surajmal ruled in the 18th century and was the son of the Jat chieftain Badan Singh.
- Maharaja Surajmal is often described as "the Plato of the Jat people" and by a modern writer as the "Jat Odysseus".
  - This is because of his political sense, steady intellect and clear vision.
- **Beliefs:**
  - **On Religion:** Maharaja Surajmal believed that the humanity is the only religion of the man. He united various factions of Hindus and Muslims and kept them together.
  - **On Racism:** He was against racism and even employed people according to their abilities in higher posts, irrespective of their races.
  - **On Farmer: Maharaja Surajmal** believed that the farmer is the most important part of the society. He heard problems of farmers and introduced reforms to rectify them.
- **Death:** Suraj Mal died on Sunday 25 December 1763. He died in a battle after being ambushed by the army of Mughal chief Najib-ad-Dawlah.

Maharaja Surajmal- Military Adventures

- **In Princely State of Jaipur:** After the death of Maharaja Jai Singh (a friend of Surajmal), his two sons- Ishwari Singh and Madho Singh fought for the throne of the Jaipur.
  - In this fight, Surajmal Supported elder son Ishwari Singh got victorious. But the battle did not end here.
  - Later, Madho Singh returned to the battlefield with the Marathas, Rathores, and Sisodia Kings of Udaipur.

- o But Surajmal with his 10000 armymen arrived in support of Ishwari Singh and defeated the Madho singh's army and he got the royal text of Jaipur.
  - o After this battle, the dunk of Maharaja Surajmal started ringing all over India.
- **With Nawab of Delhi:** In 1750, he defeated the Mughal Army of Salabat Khan and forced the latter to accept all his terms.
  - o In support of Safdar Jung, he plundered the old Delhi during the civil war among the Mughals.
- **Extension of Jurisdiction:** In 1753, Maharaja Surajmal extended his jurisdiction to Delhi and Feroz Shah Kotla.
- **Conflict with Marathas:** Above extension of Jurisdiction angered Ghaziuddin, who instigated the Maratha chieftains against Surajmal.
  - o Marathas attacked Bharatpur and surrounded the fort of Kumher for several months. But this did not end with anyone's victory rather marathas made a treaty with Surajmal.
- **Impenetrable Lohagarh Fort:** It was built by the Maharaja Surajmal and even after attacking 13 times, Britishers could not penetrate it.

Third Battle of Panipat: Maharaja Surajmal played a key role in the 3rd Battle of Panipat 1761 in which Marathas lost to the invading armies of Afghan general Ahmed Shah Abdali.

Scheme for Promotion of Culture of Science (SPoCS)

Context
- Under the Scheme for Promotion of Culture of Science (SPoCS), National Council of Science Museums (NCSM) has developed a chain of Science Cities/ Science Centres/ Innovation Hubs throughout the Country.
  - o National Council of Science Museums (NCSM) is an autonomous organization under the Ministry of Culture, Govt. of India.

Key Points
- **About**: Scheme for Promotion of Culture of Science is a scheme that provides for setting up of Science Cities and Science Centres in all the States of the country, provide adequate funds are available.
- **Implementing Agency:** National Council of Science Museums (NCSM), an autonomous organization under the Ministry of Culture, is entrusted with the Implementation of the Scheme for Promotion of Culture of Science.

- **Eligibility:** All states/UTs are eligible for its benefits.
  - o **Funding Eligibility:** State Governments/Union Territories and the Societies / Authorities promoted by the State/UT Govts. for the purpose of Science City/Science Centre/Innovation hubs shall be eligible for financial assistance from the GOI as per the norms.
  - o **Pre-conditions:** The projects are taken up on receipt of the proposal from State-Govt /UTs with commitments of encumbrance free land, cost of the project (capital & corpus), operation, manpower and management of the project etc.
- **Key Components:** Scheme for Promotion of Culture of Science has three major components-
  - o Science City:
  - o Science Centres
  - o Innovations Hubs

Scheme for Promotion of Culture of Science-
- **Science City: It** provides an experiment based immersive learning ambience to inculcate a spirit of inquiry, foster creative talent and create scientific temper in the community as a whole.
- Science City is aimed to be a popular tourist attraction of the location.
- Science city will be large in dimension with a focus in frontier areas of Science and Technology and edutainment and shall be financially self-sustainable.
- Science city shall be conceptualized in such a manner that it is attractive and useful to students, families, tourist and general public.
- Science city will use state-of-the-art communication tools and technology in its presentation.
- **Science Centre:** A Science Centre provides the scope of doing science' adopting a hands-on approach for which it offers to the visitor a number of experimental options through which they can discover the scientific concept themselves.
- **Innovation Hubs:** Innovation Hubs would be co-located in the existing Science Cities/Science Centres, science museums and non-formal educational institutions that promote creativity & inspire innovations.
  - o The Innovation hubs would serve as springboards for new ideas and innovation and thus helping the society and economy to face future challenges and meet rising aspirations of the growing population.

Scheme for Promotion of Culture of Science-Objectives of Science City/Science Centre

- To portray the growth of science and technology and their application in industry and human welfare, with a view to develop scientific attitude and temper and to create, inculcate and sustain a general awareness amongst the people;
- To create awareness & enhance public understanding, appreciation & engagement of public in the process of science & technology:
- To popularize science and technology for the benefit of students and for the common man of the region by organizing exhibitions, seminars, popular lectures, science camps and various other programs,
- To supplement science education given in schools and colleges and to organize various out-of-school educational activities to foster a spirit of scientific inquiry and creativity among the students;
- To design, develop and fabricate science museum exhibits, demonstration equipment and scientific teaching aids for science education and popularization of science;
- To organize training programs for science teachers, students/young entrepreneurs/ technicians/physically challenged/housewives and others on specific subjects of science, technology and industry.

Scheme for Promotion of Culture of Science-Objectives of The Innovation Hubs

- To equip and strengthen activities of the existing Science Cities/Science Centres/institutions to inspire innovations by young children;
- To catalyze creation of more innovation hubs in different parts of the country especially in rural areas;
- To provide appropriate environment to nurture creative and innovating ideas of young children.

Vigyan Sarvatra Pujyate

Context

- The Ministry of Culture will organise commemorative exhibitions at 75 locations across the country portraying 75 years of India's achievements in science and technology as part of 'Vigyan Sarvatra Pujyate'.

Key Points

- **About:** Vigyan Sarvatara Pujyate is a week-long Festival of SCoPE (Science Communication Popularisation Extension) being celebrated during Azadi ka Amrit Mahotsav.
- **Venue:** 'Vigyan Sarvatra Pujyate' will be organized at Vigyan Bhawan, New Delhi from 22nd-28th February, 2022.
- **Parent Ministry:** Ministry of Culture is entrusted with organizing the Vigyan Sarvatara Pujyate celebrations.
  - o The National Council of Science Museums (NCSM), an autonomous society under Ministry of Culture is an important partner in Vigyan Sarvatara Pujyate.
  - o NCSM is working in collaboration with Vigyan Prasar, Deptt. of Science & Technology, Govt. of India.
  - o NCSM forms the largest network of science centres and museums in the world under single administrative umbrella.
- **Implementation:** Ministry of Culture jointly with Government's various science and technology organisations, in close partnership with agencies at the level of the states are celebrating **Vigyan Sarvatra Pujyate** at grassroot level.
- **Significance:**
  - o **Vigyan Sarvatra Pujyate** has been designed to inspire India's youth and help them navigate into building a progressive nation.
  - o Vigyan Sarvatra Pujyate is a wonderful example of bringing together multiple ministries, departments, regional stakeholders, and general public under the banner of Amrit Mahotsav.

Dhara- an Ode to Indian Knowledge System

- The Ministry of Culture will also organize a series of lecture demonstrations under the ambit of Dhara – an Ode to Indian Knowledge System.
- The first event under this series is dedicated to 'India's Contribution to Mathematics through Ages'.
- It will cover the mathematics of following periods-
  - o Ancient period - Geometry in Śulbasūtras, Piṅgala's Chandas-śāstra and
  - o Classical Period - Landmarks in Indian Algebra, Jyotpatti, Trigonometry in India, Indeterminate Equations in Indian Algebra and
  - o Kerala School: Mādhava's Infinite Series for π, Calculus of Trigonometric Functions.

Troubled Waters

Context

- Recently, the Sri Lankan Navy arrested 22 fishermen from Tamil Nadu for illegally crossing the Sri Lankan territorial waters.

Issue of fishermen arrest

- Just a few days ago, 29 fishermen were taken into custody by the Sri Lankan authorities, for which the Chief Minister of Tamil Nadu has already written to the Union External Affairs Minister.
- As per an estimate, Sri Lankan authorities have also impounded 84 boats.
- Despite such repeated instances of fishermen being caught in the territorial waters of Sri Lanka for "poaching", the stakeholders concerned have yet to demonstrate the alacrity required for well-known solutions.

Fishermen crossing the border: Reason

- Despite being aware of the consequences, Tamil Nadu's fishermen crosses the International Maritime Boundary Line, which highlights their level of desperation driven by livelihood concerns.

Issue for Sri Lanka

- Regular interruption by the fishermen endangers Sri Lanka's marine biodiversity, which is of vital importance to Tamil fishermen of the Northern Province, which suffered civil war.
- The reported death of two Jaffna fishermen following "mid-sea clashes with their Tamil Nadu counterparts have also aggravated the issue.

Probable solutions

- The immediate attempt should be to release the arrested fishermen.
- Moreover, the governments of the two countries should fix a date for an early meeting of the Joint Working Group, last held in December 2020.
- The governments should also facilitate the resumption of talks at the level of fisherfolk, especially from Tamil Nadu and the Northern Province.
- Sri Lanka should be proactive as its citizens in the North bear the brunt of the alleged acts of transgression.
- India should also consider providing additional incentives and concessions to fishermen of the Palk Bay districts of Tamil Nadu to elicit a better response from them for its deep-sea fishing project.
- It could also propose assistance for the fishermen of the Northern Province as a gesture of goodwill.

Way forward

- There is no paucity of ideas in the area of the Palk Bay fisheries conflict, but adequate action need to be taken at the earliest by all the concerned stakeholders.

Drafting a New Constitution is Impossible

Context

- Recently, the Chief Minister of Telangana said that India needs a new Constitution, as governments at the Centre over the years have been suppressing the powers of the States.

Centre usurping state powers

- The Supreme Court, in judgments such as **S.R. Bommai v. Union of India** (1994) and Govt. Of **NCT of Delhi v. Union of India** (2018), has castigated governments at the Centre for trying to supress the powers of state governments.

Making of a new Constitution

- Jurist Fali S. Nariman said, "We will never be able to piece together a new Constitution in the present day and age even if we tried: because innovative ideas — however brilliant, howsoever beautifully expressed in consultation papers and reports of commissions — **cannot give us a better Constitution**.

Why a new constitution is impossible?

- **Appointment of B.R. Ambedkar**: Accommodation of Ambedkar showed that the biggest party then, the congress, had an accommodative spirit, which seems lacking today.
- **Responsible legislators**: During Constituent Assembly debates, if five minutes were wasted one day, the House would assemble five minutes earlier the next day and sit until night to complete pending work. This showed value for time, and value for work done for the nation. Now, all we see is ruckus and noise in Parliament, with little debate or discussion taking place on Bills.
- **Healthy debates**: During Constituent Assembly debates, dissenters and hard-core critics were tolerated and their suggestions, if found apt, were accommodated. If their suggestions were not found apt, there would be a healthy debate. Now, Bills are passed without allowing Opposition members to express their views completely.

- **High on spirit**: The members of the Constituent Assembly emerged from the clutches of colonial rule. They knew the sufferings that they and the nation had undergone under foreign rule and were determined to frame a constitution. Today's leaders seem to lack that spirit. Members of the Constituent Assembly chose the nation first; today's leaders tend to choose their party first.
- **Democratic principles**: The Constitution states that India is a "Sovereign Socialist Secular Democratic Republic". It protects the rights of every section of society. On the other hand, today's leaders give priority to particular ideologies and castes. Given this, drafting a new Constitution will be a chaotic exercise and could shut the voices of some sections, especially the vulnerable.
- **Trusted unelected body**: An unelected body was trusted by the Constitution framers to declare the law. The purpose behind choosing an unelected body was that, the judiciary can adjudicate disputes in an independent, free, fair and impartial manner. Today, leaders may choose to become judges as well as rulers.

Way forward

- Though it is true that Centre abuse their powers to cripple Opposition-ruled States, that does not call for creating a new Constitution.
- The solution lies in seeking mandate from the people to **elect regional parties in general elections** so that States can have dominance in the Union.
- Moreover, the **Supreme Court should be approached under Article 131** whenever the need arises to resolve conflicts between the Centre and State.

A Red Pen Moment for Corporate Governance

Context

- Recently, it was revealed that Chitra Ramkrishna, the former CEO of NSE (National Stock Exchange), has allegedly provided a "spiritual guru" confidential company information.

What happened?

- Chitra Ramkrishna said that a spiritual guru influenced her decision making and guided her in taking various decisions at the NSE.
- SEBI, on the other hand, alleged that provided him confidential company information including the NSE's five-year projections, financial data, dividend ratio, business plans, agenda of board meetings and also consulted him on employee annual appraisals.
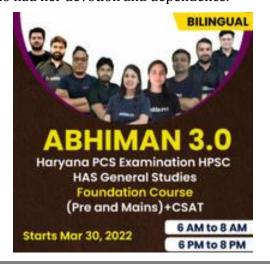
- The former NSE CEO claimed that the spiritual guru has no physical coordinates, and she met him nearly twenty years ago on the banks of the Ganga where the 'paramhansa' gave her the email-ID for future correspondence

Controversial appointment

- She said that based on her guru's recommendation, she appointed Mr. Subramanian as first as chief strategic adviser and, next, as group operating officer.
- SEBI alleges that Mr. Subramanian lacked the credentials for the job, and the position was not advertised. Mr. Subramanian was interviewed solely by Ms. Ramkrishna. He was recruited on a salary that was more than 10 times what he last drew and his salary was frequently revised without any evaluation being recorded.
  - Mr. Subramanian was hired as a consultant and progressively given operational powers until he became virtual second-in-command in the NSE hierarchy.
  - The former CEO ensured he was not designated as a key management person as that would have meant bringing Mr. Subramanian within the ambit of regulation.

The "spiritual guru"

- SEBI, after drawing reference from a forensic investigation report by Ernst & Young (E&Y), revealed that the spiritual guru was Mr. Subramanian.
- As per the opinion of a human psychology expert, Ramkrishna has been exploited by Subramanian by creating another identity in the form of Rigyajursama to guide her to perform her duties according to his wish.
- Ramkrishna was manipulated by the same man in the form of different identities; one as Subramanian who enjoyed her trust and other as Rigyajursama who had her devotion and dependence.

NSE lapse

- These was **managerial lapse at NSE**. After the NSE board was informed about the irregularities in Mr. Subramanian's appointment, it discussed the matter but chose to keep the discussions out of the minutes on grounds of confidentiality and the sensitivity of the matter.
- Second, despite being aware of Ms. Ramkrishna's transgressions, it allowed her to resign and on **generous terms** instead of taking action against her.
- Third, the Public Interest Directors (PIDs) **failed to keep SEBI informed** about the goings-on at the NSE.
- In the corporate world, **much is forgiven on grounds of performance**.

Structural problem

- **Selection of board member**: As happened in this case, the appointment of board members becomes the prerogative of the CEO, against the mandated procedure.
- **Absence of penalties**: When directors do not live up to their mandate, they are being acquitted just because of their performance. When a performing CEO chooses to unduly favour a particular individual or individuals, boards see that as a forgivable infirmity.
  - As long as the top management selects all board members or can influence their selection, there is little hope of any active challenge to management.
- Regulators act against directors where there is financial malfeasance. They **seldom act where there are breaches** of regulation as in the present instance.

Recommendations

- **Appointing independent directors**: The top management must be allowed to choose not more than 50% of the independent directors. The rest must be chosen by various other stakeholders — financial institutions, banks, small shareholders, employees, etc.
- **Holding board members accountable for lapses**: Regulators must penalise errant directors through a whole range of instruments — strictures, financial penalties, removal from boards and a permanent ban from board membership.

- **Regulating the regulator**: Regulators themselves must be held accountable. In the NSE affair, questions have been asked as to why did SEBI not seek the help of the cyber police to ascertain the identity of the yogi?
- **Independent audits**: We need periodic independent audits of all regulators by a panel of eminent persons. The audits must evaluate the regulators' performance in relation to their objectives. It is vital to guard the guardians.

Creating jobs by increasing capex

Context

- Budget 2022-23 has allocating ample money towards productive infrastructure investments to address the issue of declining workforce in India.
  - International Labour Organization (ILO) suggest that India's employment to population (over the age of 15) ratio has steadily dropped from 55% in 2005 to 43% in 2020.
  - Further, CMIE data suggest that across manufacturing and services, India lost nearly 1 crore jobs between December 2016 and December 2021.

Key points

- The first nine months of the current fiscal year 2021-22 (FY22), the Centre's revenue receipts across taxes and dividends stood at ₹17.3 lakh crore, almost fulfilling the target of full year budget of ₹17.9 lakh crore.
- Reasons
  - Higher income tax and Goods and Services Tax (GST) collections.
  - Conservative Budget projections of last year.
  - Despite the much higher revenue receipts than budgeted, the overall FY22 fiscal deficit is projected to end at ₹15.9 lakh crore (6.9% of GDP), higher than the Budget Estimates of ₹15.1 lakh crore.
  - Additional spending towards food and fertilizer subsidies,
  - Increased allocations towards the National Rural Employment Guarantee Scheme and export incentives, and
  - A clean-up of the books of Air India prior to its sale all contributed towards increased expenditures.

Capital expenditure budget

- For the FY23, capital expenditure budget has been increased to ₹7.5 lakh crore, 24% higher than the FY22 revised estimate of ₹6 lakh crore.
- On the other hand, revenue expenditure (i.e., into items such as salaries, pensions, interest, and subsidies) has seen an increase of just 1%.
- The expectation is that sustained investment in roads, railways, freight corridors, power, renewable energy along with initiatives such as Production-Linked Incentives (PLI) and other enabling legislation, will contribute in overall development of the country.

Challenges in following capex induced growth

- Not all the headline capital expenditure is indicative of fresh greenfield investments. For example: the ₹0.5 lakh crore of clean-up of Air India's books this year counts as capital expenditure.
- While there is a visible thrust on hard capital expenditure, the outlays towards critical areas such as education, healthcare and urban infrastructure remain subdued.
- The thrust on capital expenditure has resulted in higher fiscal deficit numbers, which can put pressure on interest rates.

Way forward

- With ample fund being provided, it is up to the entire administration – Central, State, and local – to ensure that the funds are utilised in a timely fashion, and result in delivery of world-class infrastructure.
- Alongside, ease of doing investments have to be continually addressed, especially around key areas such as land acquisition, contract enforcement, and policy stability.
- Sustained investments in manufacturing and value-added services hold the key for the growth of small businesses, jobs, and our economic well-being.

Zooming in on the Potential of India's Geospatial Sector

Context

- On 15 Feb last year, Ministry of Science & Technology announced **liberalised guidelines for geo-spatial data** to lead India to one lakh crore rupees geo-spatial economy.

Key points

- This year marks the **first anniversary of the historic step** that was regarded as a watershed moment when new guidelines took effect to **completely de-regulate the geospatial sector** for Indians.

Geospatial sector in India

- India has a **robust ecosystem** in geospatial, with the Survey of India (SoI), the Indian Space Research Organisation (ISRO), remote sensing application centres (RSAC)s, and the National Informatics Centre (NIC) using geospatial technology.
- The Prime Minister's speech during Independence Day and mention of geospatial in the Union Budget have **created the necessary buzz** in the Geo-spatial sector.
- The **over subscription** of the initial public offering (IPO) of MapmyIndia was an example of ground activity.
- The other noticeable activity was the launching of a **city mapping programme** by Genesys International in India.
- However, the full benefits have yet to percolate to the public; neither is there much contribution to the nation's GDP.

Key issues

- **Absence of a sizeable geospatial market in India**: There is no demand for geospatial services and products on a scale linked to India's potential and size due to the lack of awareness among potential users in government and private.
- **Lack of skilled manpower** across the entire pyramid.
- The **unavailability of foundation data**, especially at high-resolution.
- The **lack of clarity on data sharing** and collaboration prevents co-creation and asset maximisation.
- **No ready-to-use solutions** especially built to solve the problems of India.

Measures needed

- **Publish the guidelines**: The entire policy document needs to be published and the government and private users should be made aware of things.
- **Open data sharing protocol**: The data available with government departments should be unlocked, and data sharing should be encouraged and facilitated through an open data sharing protocol.
- **Develop standards**: The Government needs to invest in developing standards and must mandate the adoption of standards.
- **Establish geo-portal**: There is a need to establish a geo-portal to make all public-funded data accessible through data as a service model, with no or nominal charge.
- **Generate foundation data across India**: It should also include the Indian national digital elevation model (InDEM), data layers for cities, and data of natural resources.
- **Startups**: Solution developers and start-ups should be engaged to build solution templates for various business processes across departments.
- **Indigenous technology**: Local technology and solutions should be promoted, and competition should be encouraged for quality output.
- **Local cloud:** As the new guidelines prevent high-accuracy data being stored in overseas clouds, there is a need to develop a geospatial data cloud locally and facilitate a solution as service.
- **Regulation**: National organisations like SoI and ISRO should be entrusted with the responsibility of regulation and the projects related to the nation's security and scientific significance.
- **Academic programme**: India should start a bachelor's programme in geospatial also in the Indian Institutes of Technology and the National Institutes of Technology. Besides these, there should be a dedicated geospatial university.

Way forward

- The geospatial sector in the country is **rightly positioned for investment**. However, clarity on the issues discussed and the creation of an enabling ecosystem are essential.

A Cautionary Tale

Context

- Amidst global turmoil, the Intergovernmental Panel on Climate Change (IPCC) has a message that the present and future man-made impacts of climate change is predictably dire.
  - o IPCC is the largest international consortium of scientists analysing and reviewing the evidence on the present and future man-made impacts of climate change.

Key Observations

- **Limiting Global Warming to 1.5°C:** The world faces unavoidable multiple climate hazards over the next two decades with global warming of 1.5°C.
  - o Even temporarily exceeding this warming level would mean additional severe impacts, some of which will be irreversible.
- The rise in weather and climate extremes has led to some irreversible impacts as natural and human systems are pushed beyond their ability to adapt.
- The IPCC report 2022 notes that most of the targets that countries have set for themselves are too far in the future to have an impact in the short term at meaningfully reducing the climate impact.

India's Commitments on Climate Change

- **India's Commitments:** In COP26 Summit, India declared that it will achieve net zero emissions latest by 2070, that is, there will be no net carbon emissions.
  - o By 2030, India would also ensure 50% of its energy will be from renewable energy sources.
- **Inadequacy of the Commitments:** None of the above commitments of India can help the 1.5°C mark from being breached.

Climate Change and Threats to India

'Wet-Bulb' Temperature: Wet-Bulb is an index of the impact of heat and humidity combined — and its effect on health. According to one of several studies cited in the IPCC report-

- Lucknow and Patna were among the cities predicted to reach wet-bulb temperatures of 35°C if emissions continued to rise.
- Bhubaneshwar, Chennai, Mumbai, Indore, and Ahmedabad are 'at risk' of reaching wet-bulb temperatures of 32°C-34°C with continued emissions.
- This will have consequences such as a rise in heat-wave linked deaths or reduced productivity.
- **Rise of Global Sea level:** Global sea levels will likely rise 44cm-76cm this century if governments meet their current emission-cutting pledges.
  - o But with higher emissions, and if ice sheets collapse more quickly than expected, sea levels could rise as much as 2 metres this century and 5m by 2150.
  - o India is one of the most vulnerable countries in terms of the population that will be affected by sea-level rise.
  - o By the middle of the century, around 35 million of its people could face annual coastal flooding, with 45 million-50 million at risk by the end of the century if emissions are high.

Conclusion

- Experience has shown that partisan economic calculations trump climate considerations, but India must shore up its adaptation measures and urgently move to secure the futures of its many vulnerable who have the most to lose.

A Planetary Adjustment

Context

- Recently, the Prime Minister in his first address remarked that it was not the planet that was "fragile", but people and their commitment to conserving nature.

Humanity not the Nature needs Protection

- There is a misplaced belief that Nature needs protection rather than Humanity from climate change. This has been reinforced by many. For example-
  o **James Lovelock's Gaia hypothesis:** It posited the inter-connectedness of nature
  o **Nobel Laureate Paul Crutzen:** he warned that chemical effluents were altering the planet's atmosphere and causing harmful climate change feedback effects.
- Many falsely believe that humanity is in the Anthropocene era and is like a geological force that is shaping the planet's destiny.
  o However, this gives the distorted sense that it is a vaguely defined 'planet' that needs protecting, a notion reinforced by apocalyptic documentaries on melting glaciers.

Role of Humanity in Climate Change

- **Embrace of Agriculture:** the dominance of wheat and rice as food crops and the clearing of forest tracts caused the first major large-scale changes to global climate though their effects were apparent only over centuries.
- **Industrial Age:** Atmospheric changes due to the dawn of the Industrial Age and the use of fossil fuels led to the drastic changes in the Earth's Climate.
- **Impact: In** both of the above eras those who suffered the most are the poor, or those with the least agency to shield themselves from a perturbed nature.
- **Ignorance:** Last year, Uttarakhand saw an avalanche of rock and ice destroy two hydropower projects and cause deaths.
  o These projects were undertaken even though scientists have long warned that the geology of the Himalayas, makes the region inhospitable to large mega-engineering projects.

o The several floods, landslides and earthquakes over the years have underlined the above time and again.

Way Forward

- **Humanity needs Protection:** while the earth rearranges itself, it does so in a manner that can be destructive and lethal to those least responsible for causing the disequilibrium.
  o Thus, if "fragile" were to mean a brittleness needing care, then it is people and animals that need protection than a vaguely defined 'planet'.
- **Changing India's Position on Climate Justice:** Present position is that India cannot be denied the right to rely on polluting fossil fuel to ameliorate the living conditions of most Indians who have limited access to reliable energy.
  o This position will put the lives of millions of the vulnerable at climate-risk in the pursuit of economic development.
- **Accelerating Transition to Clean Energy Sources:** India must accelerate and prioritise the transition to energy sources that are minimally perturbing to the natural balance.
  o Presently, India's commitment to net-zero is set decades into the future at 2070.
  o Given its size and population, India will be disproportionately vulnerable to the climate change.

A Safety Net for Students

Context

- Ongoing Covid-19 pandemic and Russia Ukraine war has alerted us to think about the safety and wellbeing of the Indian Citizens abroad.
- The unfortunate deaths of two Indian students (one died in shelling, the other suffered a stroke) in Ukraine also warrants us to ensure that India students abroad are safe and secure.

Importance Of Indian Citizens

- Before the onset of the pandemic, more than 7,50,000 Indian students were studying abroad, spending $24 billion in foreign economies, which is around 1% of India's GDP.
  o The number is expected to rise to around 1.8 million by 2024 when our students will be spending nearly $80 billion outside India.
- Former External Affairs Minister Sushma Swaraj, referred to Indians abroad as "brand ambassadors".
  o Prime Minister Narendra Modi and U.K. Prime Minister Boris Johnson call Indians in the U.K. the "living bridge" between both countries.

- Indian Students abroad bring the larger benefits in terms of soft power, knowledge transfer and remittances that come back to India.
- India is the second largest source of international students after China, and this is expected to continue.

Concerns for Indian Students Abroad

- **Lack of Quality Education:** With more than half the Indian population under the age of 25, and no Indian university in the world's top 100, it is natural that aspirational students would look to study abroad.
- **Jeopardizing the Future of Indian Students Abroad:** Around 2,000 students whose colleges have abruptly closed have been protesting.
  - In the U.K. a few years ago with hundreds of 'bogus' colleges were closed, adversely impacting thousands of international students.
  - During Pandemic, Australia shut its borders to the thousands of Indian students enrolled to study on its campuses.

Securing Welfare of Indian Students Abroad

- **Protecting them Abroad:** Indian Government must mandate protection of Indian people abroad by ensuring that host countries take on this responsibility.
  - Indian students are consumers of higher education abroad, and guests of the nations they reside in.
- **International Agreement for International Students:** International agreements that oblige host countries to ensure the welfare of Indian students during times of crises and contingencies should be given paramount importance.
- **Mandatory student insurance scheme:** It should be incorporated into trade agreements with other countries to secure the interests of students who also spend considerably in the host country.
  - For instance, higher education has been one of the strongest exports for the U.K., generating £28.8 billion in revenue.

Conclusion

- The aspiration to secure a better exposure and future can render them prone to difficulties, which can be offset by such a safety net arrangement.
- When the achievements of Indians abroad are ours to celebrate, so is the responsibility to safeguard their welfare.

Care Informed by Data

Context

- The recent Lancet estimates of COVID-19-associated orphanhood, which put the number at over 19 lakh children orphaned as a result of COVID-19.
  - This has raised concerns for India and future of its Orphaned Children.
- India has objected strongly to the estimate of 19 lakh, terming it as "sophisticated trickery intended to create panic among citizens".
  - As per data collected by the National Commission for Protection of Child Rights and collated on the Bal Swaraj portal, the number of children orphaned during COVID-19 in India was far lower, at 1.53 lakh.

Key Findings of the Lancet Study

- **Global Scenario**: Globally, it estimated that 52 lakh children had been rendered orphans by the pandemic.
- **Defines Orphaned Due to COVID-19:** Orphanhood was defined as the death of one or both parents; or the death of one or both custodial grandparents.
- The Lancet findings showed that numbers of children orphaned by COVID-19 had almost doubled in six months compared with the data after the first 14 months of the pandemic.

Steps taken by India for care of Orphaned Children due to COVID-19

- Indian government announced a grand plan of support for children forced into orphanhood by COVID-19.
- Many States announced rehabilitation plans, including provisions for adoption, foster care, education and health care.

Way Forward

- **Include Childcare in the COVID-19 Management:** Governments across the world must incorporate childcare into any COVID-19 management programme with absolute urgency.
  - The state should proactively draw such children into the umbrella of care to save them from numerous adversities — poverty, violence, destitution, and lack of access to education and health care.
- **Update Existing Programs:** India must update the status of covid affected orphaned childcare programmes.
  - India must also update information on the number of cases where intervention has occurred, and where it is pending, must be put out in the public realm.

Conclusion

- The Government must allow interventions for children to be informed by a 'whole-life' care paradigm, and fresh data from time to time.
- This is important especially in a pandemic that is not only rapidly evolving, but by all accounts, is nowhere near ending.

India's Semiconductor Dream

Context

- In the backdrop of pandemic driven fragility of global supply chain, many countries including India has provided support to the Semiconductor sector.
- **Importance:** semiconductors are at the core of fourth industrial revolution technologies. This is especially important in the context the current geopolitical dynamics.

Associated Issues

- **COVID-19 Impact:** The pandemic has brought to the fore the fragility of the global supply chain of semiconductor manufacturing.
- **Competition from Other Countries:** The situation is exacerbated by the overdependence of the world on East Asia for fab manufacturing, the rising price of silicon, and the China-U.S. trade war.

Support by Countries

- **India:** India has approved a $10 billion package to incentivise the manufacturing of semiconductors in the country.
  - The government has drawn out a list of incentives to get leading international manufacturers to set up their manufacturing unit in India either by themselves or with the help of a local partner.
- **USA:** The U.S. has announced a $50 billion package to create foundries there.
  - Intel is adding two more foundries to its Arizona campus and also developing its own foundry business to compete with chip-makers such as TSMSC and UMC.
  - TSMC, which controls 24% of the semiconductor supply chain, is setting up a $12 billion facility in Arizona.
- **Japan and Germany:** Japan and Germany have got TSMC to start specialty technology fabs in their respective countries.

Associated Benefits

- **Strengthen Design:** Getting fab manufacturing will also build on India's strength in design.
  - India has the largest number of chip designers outside of the U.S. who are working on state-of-the-art systems and technologies.
  - For example, Karnataka boasts of over 85 fabless chip design houses of various global companies.
- The strong expertise of our semiconductor design professionals in EDA (Electronic Design Automation) tools provides solid ground to move towards manufacturing.

Way Forward

- **Ensuring Demand within Country:** To create the ecosystem for fab manufacturing, it is important to lock in the demand for semiconductors produced within the country.
  - he total demand for semiconductors stands at $24 billion. This is expected to grow to $80-90 billion by 2030.
  - It would be ideal to enter into an agreement with the consumers of such semiconductors like automotive manufacturers to ensure that whatever is produced is consumed.
- **Develop Raw Material Supply Capabilities:** The India Electronics and Semiconductor Association is exploring the opportunity to start supplying processed raw materials like minerals and gases to the fab and ATMP (Assembly. Testing, Marking, and Packaging) industry.
  - This will give a fillip to the Indian gas, materials, and mines industry and also expand opportunities for semiconductor equipment, spares, and service industry.
- **Promoting Fab Clustering:** It is where key semiconductor supply chains and related businesses are in one place to create backward and forward linkages.
  - Fab Clustering would also play a key role in creating an ecosystem for the semiconductor industry.
  - Such a site should be chosen purely on the ability of the location to act as a force multiplier for the development of such an ecosystem.
- **Ensuring women participation:** A conducive environment needs to be created for women to work night shifts along with zero labour disputes.

- **Encourage Private Participation:** Along with promoting FDI in the sector, India also needs to focus on encouraging Indian manufacturers and start-ups to enter and master complex R&D and manufacturing verticals.
  o This will ensure that valuable Intellectual Property is created and owned by Indian companies.
- **Facilitating the development of Cutting-edge technologies:** The semiconductor industry is changing fast as new-age technologies require innovation at the design, material, and process levels.
  o We must encourage Indian Engineers to set up their design start-ups with handsome government grants and tax incentives.
  o Premier research institutions such as the Indian Institute of Science should also be asked to work aggressively on R&D in chip designing and manufacturing.
  o Government must focus on emerging technologies like LiDAR and Phased Array in which incumbents do not have a disproportionate advantage and the entry barrier is low.

Way Forward

- By working aggressively in new cutting-edge technologies, India can ensure that it becomes atmanirbhar, especially in the Semiconductor sector.

On an Equal Footing

Context
- India is the sixth largest economy in the world with a high growth potential and a population of about 135 crore people.
- India's growth potential cannot be achieved without giving equal opportunity to every State.

Associated Concerns
- The low-income States (LIS) are deprived on many fronts. They have low accessibility to credit, low investments, low power availability and accessibility, and high energy costs.
  o The high-income States (HIS), on the other hand, have a big share in industry and commerce because they are not deprived on the same fronts.

- **Economic Disparity:** The six HIS together account for 56.4% of factories and 54.3% of the net value added to the country, while their share in population is only 32.3%.
  o These six HIS are Maharashtra, Tamil Nadu, Gujarat, Karnataka, Andhra Pradesh and Telangana.
- **Differentiated Financial and Credit Accessibility:** the above economic disparity is due to higher credit and financial accessibility (55% of total institutional credit and 56% of total industrial credit went to these five HIS) at the credit-deposit ratio.
  o The six LIS (Bihar, Jharkhand, U.P., M.P., Odisha, and Rajasthan) had access to only 15% of total institutional credit and barely 5% of total industrial credit, while their share in population is 43%.
  o These LIS States together receive only 50% credit from their hard-earned savings.
- **Distorted Benefits of Various Schemes:** The maximum benefit of the Atmanirbhar package (₹20 lakh crore) also went to the HIS as they have a higher share in industry.
- **Access to Adequate Quality of Power:** the availability of adequate quality power at the cheapest rate attracts investments, either private or public, in a particular location.
  o Of the total consumption of electricity, industry and commerce account for more than 50%.
  o The power-producing States have the advantage of power, especially hydel power, being available at lower prices.
  o States with higher power purchasing costs face the difficulty of making energy traffic competitive by paying high subsidies from already scarce resources. Thus, they are unable to attract investments.

Ways to Eliminate Distorted Access to Power

- **Eliminate Price Discrimination in the Power Sector:** This problem can be addressed by synchronising all the regional grids. This will help the transfer of energy (without compromising quality). The idea is of 'One Nation, One Grid, One Frequency'.
  - Further, this will pave the way for establishing a vibrant electricity market and facilitate the trading of power across regions through the adoption of the 'one tariff' policy.
  - The Central Electricity Regulatory Commission is in the process of implementing a framework of the Market-Based Economic Dispatch and moving towards 'One Nation, One Grid, One Frequency, One Price'.
- **Inclusion of electricity duty under the Goods and Services Tax (GST):** Apart from uniform cost, the power sector also needs uniformity in electricity duty charged by different States.
  - The electricity duty should be redistributed among the States under the ambit of GST equally shared by the CGST and SGST.
  - However, 100% CGST should be devolved among the States through the Fifteenth Finance Commission formula, without being shared with the Centre (as electricity duty is State subject).

Conclusion

- In order to attain higher economic growth, the States should raise the issue of uniform energy tariff and inclusion of electricity duty under the ambit of GST.
- This decision will benefit the whole nation through rational tax devolution and, therefore, provide the opportunity to attain higher growth.

Russia's NATO Problem

Context

- Russia's unjustifiable incursion into Ukraine following weeks of military troop build-up on their shared border has drastically raised tensions in the region.
- Russia Ukraine war could have ripple effects across the world, particularly for NATO countries and others with strategic connections to the two nations.

Latest Developments

- Reports said that several Ukrainian cities, including capital Kyiv came under attack on Thursday morning.
- U.S. President Joe Biden and the NATO and European Commission leadership vowed to impose "severe sanctions" on Russia.

- This round of sanctions will overlay prior economic penalties imposed on Russian entities and individuals close to the political leadership.
- They are expected to include cutting off top Russian banks from the financial system, halting technology exports, and directly targeting the Russian President.

Efforts to Avoid Conflict

- **Diplomatic Efforts:** Ever since Russia began amassing troops on the Ukrainian border, the U.S., NATO, and Europe have sought to press for diplomatic solutions.
  - This includes direct U.S.-Russia negotiations, and French President Macron's meeting with Mr. Putin.
- **UNSC Meeting:** UN Security Council held an emergency meeting to stop the Russian invasion of Ukraine.

Russian Concerns

- **Ukraine's NATO dream:** Ukraine was expected to be part of the NATO. This frustrated Russia as it would have put western powers in its backyard.
  - The heart of his fears is the prospect of Ukraine joining NATO and NATO troops potentially stationed at the border with Russia.
- **Disregard for "Founding Act":** After the dissolution of the former Soviet Union, the Eastern European military alliance, NATO, and Russia in 1997 signed the "Founding Act" on mutual relations, cooperation, and security.
  - Disregarding the spirit of this agreement, NATO quietly underwent five rounds of enlargement during the 1990s, pulling former Soviet Union countries into its orbit.

Conclusion

- Unless western nations give assurances to Mr. Putin that NATO will not seek to relentlessly expand its footprint eastwards, Moscow will have little incentive to return to the negotiating table.
  - But Russia and Mr. Putin must realise that war is not the means to peace and security.

Russian Recognition of Ukrainian Territory

Context

- Recently, Russian President Vladimir Putin has announced a formal recognition for the Donbas region enclaves (Oblasts) of Donetsk and Luhansk in Eastern Ukraine.
- This changes the course of the present diplomatic efforts among European Countries and Russia.

What it means in the Present Russia-Ukraine Tensions?

- **Violation of Minsk Accords:** Russian recognition of the two separatist groups that control parts of the Donbas region as governments signals that Russia is no longer interested in talks on the basis of the "Minsk accords".
  - The Minsk agreements — negotiated in 2014 and 2015, but never fully implemented — had secured a "special status" for the Donbas enclaves.
- **Russian Troops on the Ground:** Russia has also ordered Russian "peacekeepers" into the region, a move that could spark off conflict with Ukrainian troops.
  - Russia claim that it is far short of the "invasion" that the U.S. and its NATO allies have been warning about, and should not incur any further hostilities from Ukraine.
- **Threat of War persists:** The presence of Russian forces on the Ukrainian Soil means that the threat of conflict would persist even when the Russian troops along the Ukraine border, and in Belarus for military exercises, withdrew.
- **NATO's Imminent Role:** The situation is not going to be "managed" or "handled" without NATO sitting down to serious negotiation over the security guarantees that Russia has been demanding for two decades.
  - Some discussion with NATO about how to regulate the expansion of NATO to Russia's neighbouring countries and the heavy presence of western troops and weapons in the region is also required.
- **Dilemma for USA and other European Powers:** the U.S. and its European allies have to decide whether they would react with sanctions, military action, or return to the diplomatic table.
- **Impact on Indian Interests:** Indian Foreign Minister is in Europe. He has tried to shift the focus of his European interlocutors to the Indo-Pacific, it is Russia's actions that dominate the conversation.
  - In addition, Pakistan Prime Minister is visiting Moscow, the first by a Pakistani PM in over two decades, and New Delhi is watching the new ties closely.
  - **Delivery of Russian S-400 Missile Systems:** The timing of the tensions is all the more inconvenient, given that the delivery of Russian S-400 missile systems is underway.
  - U.S. administration is still to decide on whether to waive or impose CAATSA sanctions against India.

Russia-Ukraine Conflict

- India at the UNSC appealed for diplomacy and de-escalation, while making no critical comment about Mr. Putin's announcement.
- It is not just an assertion of India's traditional principled position, or a study in pragmatism but also a reflection of the difficult position New Delhi finds itself in over the conflict, which appears to have now entered a new phase.

Tackling the Plastic Problem

Context

- A report released by the United Nations Environment Program (UNEP) last year estimated that emissions of plastic waste into the aquatic ecosystems may triple by 2040 if no meaningful action is taken.
- In this context, UN Environment Assembly meeting in February-March 2022 may finalize a way forward for global cooperation in this regard.

Negative Externalities of Plastic Pollution

- **Long-Lasting:** Plastic products in the form of bags, bottles, etc. are convenient, but take a very long time to decompose.
- **Increasing Plastic Waste:** Increasing global consumption and low participation in recycling program have led to more plastic waste.
- **Social Costs of Plastic Consumption:** It affects the livelihoods of a major chunk of population dependent on marine life. Marine fisheries and wildlife are mainly harmed due to plastics.
- **Consumption Externality:** It involves many people, rather than a production externality, which involves one or multiple firms.
  - **Impact:** Consumption externality is more challenging to address, as it is difficult to differentiate the behaviour of consumers.
  - Consumption externality is more challenging to address, as it is difficult to differentiate the behaviour of consumers.

Challenges of Existing Methods of Controlling Plastic Pollution

- **Plastic Ban:** A number of regions across the world have banned plastic bags. This approach promotes a sustainable environment, intergenerational equity, saves marine and wildlife ecosystems, and restores soil quality.

- o **Associated Challenges:** it causes inconvenience for consumers, increases substitution cost, and creates unemployment shocks as it affects the production of plastics, leading to less economic activity, less income generation and finally less employment.
- **Replacement of Plastics:** The replacement of plastics, which are low cost, with substitutes results in deadweight loss for the economy.
- **Ineffectiveness of Imposing Tax:** It is difficult to identify the exact tax to be imposed, which may depend on country-specific circumstances.

Way Forward

- **'Command and Control' Approach:** The efficiency of such a regulation depends on its architecture — how well it is planned, designed and executed.
  - o It should be credible, transparent and predictable.
- **Eco-taxes or Subsidies:** A tax rate needs to be carefully determined and should work as a deterrent. In general, the rate of tax on plastics should be higher than the cost of compliance.
  - o Eco-taxes may be imposed in the various stages of production, consumption or disposal of plastics.
  - o Pollution due to plastics may happen during the production stage. That is the logic for imposing tax on polluting inputs, as it forces the producer to look for cleaner substitutes.
  - o Pollution also occurs during the consumption stage, and thus an eco-tax is recommended to discourage consumption.
- **Evaluation of Social Cost:** Social cost should be evaluated differently in the local/regional and global contexts.
  - o While health and hygiene are predominant considerations in the former case, climate change is the predominant consideration in the latter.
- **Right Evaluation of Impact:** Evaluation of damage due to plastic pollution to the environment should be based on scientific assessment of the adverse impacts on health, environment, etc.
  - o The eco-tax rate on plastics may thus be fixed commensurate to the marginal social cost so evaluated.
- **Comprehensive Policy Measure:** Comprehensive Policy measures against plastics should involve following three complementary activities-

- o The removal of existing taxes and subsidies that have a negative environmental impact,
- o Taking into account the different types or grades of plastics, and
- o Restructuring existing taxes in an environmentally friendly manner.
- **Other Measures:**
  - o Promoting multiple use of plastics through better waste management, educating the public on the harmful use of plastics,
  - o Providing subsidy for research and development activity for substitute development, appropriate disposal mechanisms and waste management and
  - o Use of waste for constructive usage like roads.

Winter is Here

Context

- On the eve of the opening of the Winter Olympics in Beijing, India announced a diplomatic boycott of the Beijing Olympic games 2022.
- Earlier, India joined Russia in expressing support for the games, following a meeting of the Foreign Ministers of Russia, India and China.
  - o India's support came amid the U.S. and its allies announcing a diplomatic boycott because of rights violations in Xinjiang.

Why India's Diplomatic Boycott?

- **Reason for Boycott:** India's diplomatic boycott was followed by China's move this week to choose a PLA commander as one of the participants of the traditional torch relay.
  - o The commander was involved in the June 15, 2020 clash in Galwan Valley. He was subsequently given military honours by Beijing.
- **Impact:**
  - o The Ministry of External Affairs (MEA) said no Indian official will be present at the opening or closing ceremonies of the games, which run from February 4 to 20.
  - o Despite India's diplomatic boycott, a lone Indian athlete who qualified, skier Arif Khan, will still take part in both the games and in the opening ceremony along with support staff.
- **Chinese Geopolitical Reasoning:** the selection of the PLA commander is an on-going campaign by China to publicise Galwan and highlight the "bravery" of PLA troops.

Beijing Olympics 2022- Diplomatic Boycott by Other Countries

- U.S. and its allies like Canada Australia announced a diplomatic boycott because of rights violations in Xinjiang.
  - In Xinjiang, minority Uighurs have been sent to "reeducation" camps.
- **Chinese Reaction:** China denounced the diplomatic boycott by around a dozen countries as "politicising" the Beijing Olympic games.
  - China first denied the existence of the camps, but later said they were for "vocational training".

Practice Questions

SET 01

1. Which of the following statements regarding **New India Literacy Programme is incorrect?**
   (a) It aims **to cover all the aspects of Adult Education** to align with National Education Policy 2020
   (b) The scheme will cover **non-literates of the age of 15 years** and above in all states/uts in the country.
   (c) Under this **Critical life skills,** and vocational skills will be imparted.
   (d) The objective of the scheme is to reach to 10 crore learners for the Foundational Literacy & Numeracy

2. Arrange the following countries from east to west in the Baltic Sea
   1. Sweden
   2. Lithuania
   3. Latvia
   4. Estonia
   Select correct code:
   (a) 1-2-3-4   (b) 2-1-3-4
   (c) 1-2-4-3   (d) 2-1-4-3

3. Consider the following statements
   1. India is the 'fifth-largest electronic waste producer in the world', the top being the United States.
   2. Cadmium is found e-waste can cause "itai itai disease"
   Which of the statements given above is/are correct?
   (a) 1 only   (b) 2 only
   (c) Both 1 and 2   (d) Neither 1 nor 2

4. Consider the following statements regarding origami metamaterials
   1. Origami metamaterials can be folded in any shape to obtain desired properties.
   2. They show a constant value of Poisson Ratio
   Which of the statements given above is/are correct?
   (a) 1 only   (b) 2 only
   (c) Both 1 and 2   (d) Neither 1 nor 2

5. Consider the following statements regarding Scheme for Economic Empowerment of DNTs
   1. Under this scheme, denotified tribes would be provided loans to self-help groups of Denotified groups in order to start traditional weaving
   2. The Scheme will be implemented through a portal, developed by the Department of Social Justice & Empowerment.
   Which of the statements given above is/are correct?

   (a) 1 only   (b) 2 only
   (c) Both 1 and 2   (d) Neither 1 nor 2

6. Consider the following statements regarding De-notified Tribes'
   1. De-notified Tribes' are all those communities that are notified under the Criminal Tribes Act of 1871
   2. Idate Commission report is associated with quantification of data of denotified data
   Which of the statements given above is/are correct?
   (a) 1 only   (b) 2 only
   (c) Both 1 and 2   (d) Neither 1 nor 2

7. Consider the following statements regarding the Organization of the Islamic Cooperation (OIC):
   (a) The Organisation of Islamic Cooperation (OIC) is the second-largest organization after the United Nations
   (b) Most of the Countries of it have Muslim majority populations.
   (c) Its permanent Secretariat is in Jeddah, Saudi Arabia.
   (d) India is also a member of the OIC

8. Consider the following statements regarding New Frontiers Programme'
   1. It aims to promote new emerging technologies in Renewable energy
   2. This programme is launched by NITI Ayog
   Which of the statements given above is/are not correct?
   (a) 1 only   (b) 2 only
   (c) Both 1 and 2   (d) Neither 1 nor 2

9. Consider the following statements regarding the Periodic Labour Force Survey(PLFS)
   1. Labour bureau publishes data of Periodic Labour Force Survey(PLFS)
   2. Usual Status activity determined in the PLFS survey is on the basis of employment in the past 365 days.
   Which of the statements given above is/are correct?
   (a) 1 only   (b) 2 only
   (c) Both 1 and 2   (d) Neither 1 nor 2

10. The term e-fasting is associated with-
    (a) Cryptocurrency
    (b) Disposal of Nuclear waste
    (c) Protection of wetlands
    (d) Management of e waste

Solutions

1. **(d):** Government-approved a new scheme "**New India Literacy Programme for the period fys 2022-2027 to cover all the aspects of Adult Education** to align with National Education Policy 2020 and Budget Announcements 2021-22.

   Coverage: The scheme will cover **non-literates of the age of 15 years** and above in all states/uts in the country.

   Objectives of the New India Literacy Programme: –
   The objective of the scheme is to reach to 5 crore learners for the Foundational Literacy & Numeracy Impart **not only foundational literacy and numeracy** but also to cover other components which are necessary for a citizen of the 21st century such as **Critical life skills** (including **financial literacy, digital literacy, commercial skills, health care and awareness, child care and education, and family welfare**);

   Vocational skills development (with a view towards obtaining local employment) and basic education (including preparatory, middle, and secondary stage equivalency).

   Continuing education includes engaging holistic adult education courses in the arts, sciences, technology, culture, sports, and recreation, as well as other topics of interest or uses to local learners.

2. **(a):** Place in News-Ukraine and Russia due to war situation

3. **(c):** China already produces about 2.3 million tonnes (2010 estimate) domestically, second only to the United States. India is the 'fifth-largest electronic waste producer in the world'. Approximately 1.2 million tonnes of e-waste is generated annually in India according to the Central Pollution Control Board (CPCB).

   Cadmium is found in monitors/ crts, pcbs, computer batteries, and can cause "itai itai disease"

4. **(c):** Origami metamaterials show a constant value of Poisson Ratio when subjected to stress. These are manufactured by joining panels along their edges to form 'creases' about which the structure locally 'folds' or rotates about. The benefit is that the observed property does not depend on whether it is made from a sheet of paper, polymer or metal. What matters is that under impact the sheet folds up along the creases.

   Poisson ration:
   The ratio between the deformation along with the force and the deformation in a direction lateral to the force is called the Poisson ratio. The Poisson ratio can be positive or negative. While, as in the example of the clay cube, we can easily visualise a material with a positive Poisson ratio, it is somewhat counter-intuitive to consider a material with a negative Poisson ratio.

5. **(b):** Scheme for Economic Empowerment of dnts (SEED)

   Under the scheme, the government seeks to provide free coaching to students for civil services examinations, competitive exams for admission to professional courses; health insurance; livelihood support and housing.

   It has been formulated for families having income from all sources of Rs.2.50 lakh or less per annum and not availing any such benefits from a similar Scheme of Centre Government or the State Government.

   The Scheme will be implemented through a portal, developed by the Department of Social Justice & Empowerment.

   The other implementing agencies are the Ministry of Rural Development, the National Rural Livelihood Mission (NRLM), and the National Health Authority (NHA).

6. **(c):** The term 'De-notified Tribes' stands for all those communities which were once notified under the Criminal Tribes Acts, enforced by the Criminal Tribes Act of 1871 British Raj between l87l and 1947. These Acts were repealed by the Independent Indian Government in 1952, and these communities were "De-Notified". A few of these communities which were listed as de-notified were also nomadic.

In May 2018, the National Commission for Denotified Nomadic and Semi-Nomadic Tribes, chaired by Bhiku Ramji Idate submitted its report on Denotified, Nomadic, and Semi-Nomadic Tribes DNT, NT, SNT.

As per the report prepared by Bhiku Ramji Idate, over 260 extremely marginalized communities have never been identified or included in any of the reserved categories. It recommended the government should provide strong legal protections and constitutional safeguards, including the extension of the Protection of Atrocities Act to the NT/ DNT/ SNT communities by creating a separate Third schedule as Scheduled De-notified, Nomadic, and Semi-Nomadic Tribes.

7. **(d):** The Organisation of Islamic Cooperation (OIC) is the second-largest organization after the United Nations with a membership of 57 states with a collective population of over 1.8 billion as of 2015 with 49 countries being Muslim-majority countries.

Some members, especially in West Africa and South America, are – though with large Muslim populations – not necessarily Muslim majority countries. A few countries with significant Muslim populations, such as Russia and Thailand, sit as the Observer States.

Its headquarters is in Jeddah Saudi Arabia.

The OIC is mainly controlled by Saudi Arabia, but Pakistan, as the only Islamic country with nuclear weapons, has had a large say since its inception. As a result, over the years, the organization has issued several statements on Kashmir that have been supportive of Pakistan and critical of Indian "atrocities". Hence India is neither a member nor an observer of the OIC.

Additional info:

The OIC has permanent delegations to the United Nations and the European Union. The official languages of the OIC are Arabic, English, and French

8. **(a):** The programme will organize webinars, discussions, and contemplation meetings on various aspects of Renewable Energy. A brainstorming session will be conducted involving the MNRE, MOP, MOEFCC, Indian Railways, Principal Secretaries from leading renewable energy States, Public Sector Enterprises to understand key issues in respect of achieving the net-zero goal and pathways for the energy transition.

The Ministry of New & Renewable Energy is conducting a program on Renewable Energy namely "New Frontiers" as part of Azadi ka Amrit Mahotsav celebrations

9. **(b):** PLFS is conducted in rural households annually and on a quarterly basis for the urban households by NSO.

The activity status is determined on the basis of the reference period of the last 365 days preceding the date of the survey, it is known as the usual activity status of the person

10. **(d):** Digital fasting or e-fasting is usually referred to as reducing technology use — such as turning off notifications, turning our phone off while working and setting limits for the amount of time we spend on technology on a daily basis can not only be helpful for us but also minimise e-waste.

SET 02

1. Consider the following statements regarding Rashtriya Uchchatar Shiksha Abhiyan (RUSA)
   1. It is a Centrally Sector Scheme (CSS)
   2. It aims at providing strategic funding to eligible state higher educational institutions.
   3. Recently this scheme has been put for continuation till March 31, 2026

   Which of the statements given above is/are correct?
   (a) 1 and 2   (b) 2 and 3
   (c) 1 and 3   (d) 1,2 and 3

2. India has a Comprehensive Economic Partnership Agreement (CEPA) with Japan and South Korea. which of the following has become the first in the middle east to sign CEPA with India

   (a) Qatar   (b) Bahrain
   (c) UAE   (d) Saudi Arabia

3. Consider the following pairs

   Launcher-Usage

   1. PSLV-Low Earth Orbit satellites
   2. GSLV- Gaganyaan Mission
   3. SSLV-Microsatellites

   Which of the pair/s given above is/are correct?

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

4. Which of the following statements regarding the Inter-Operable Criminal Justice System (ICJS) project is incorrect?
   (a) The project will be implemented as a central sector scheme
   (b) This project is the flagship programme of the Ministry of Law and Justice
   (c) ICJS is a national platform for enabling integration of the main IT system used for the delivery of Criminal Justice in the country
   (d) National Crime Records Bureau (NCRB) and National Informatics Centre (NIC) will be responsible for the implementation of the project

5. Minsk I and Minsk II agreements were signed between which of the following?
   (a) Russia and Germany
   (b) Ukraine and NATO
   (c) Russian and Ukraine
   (d) The European Union, North Atlantic Treaty Alliance(NATO) and Ukraine

6. Consider the following statements regarding the latest EPR guidelines issued under the Plastic Waste Management (Amendment) Rules, 2022
   1. The Extended Producer Responsibility (EPR) was first mentioned in the Plastic Waste Management Rules, 2011.
   2. The EPR guidelines create four categories of plastics.
   3. It mandates the establishment of a centralised online portal by NITI Ayog for the registration as well as filing of annual returns by producers.
   Which of the statements given above is/are correct?
   (a) 1 and 2   (b) 2 and 3
   (c) 1 and 3   (d) 1,2 and 3

7. Consider the following statements regarding Green hydrogen
   1. It is made using renewable power via the electrolysis process of splitting water into hydrogen and oxygen
   2. It is cheaper to produce than traditional fuels
   Which of the statements given above is/are correct?
   (a) 1 only   (b) 2 only
   (c) Both 1 and 2   (d) Neither 1 nor 2

8. Consider the following statements regarding National Human Rights Commission (NHRC)
   1. The Chairperson of NHRC is a retired Chief Justice of India of the supreme court or judge of the high court
   2. The tenure of the chairman and other members of the National Human Rights Commission is 3 years up to 70 years whichever is maximum.
   3. It studies treaties and other international instruments on human rights and makes recommendations for their effective implementation
   Which of the statements given above is/are correct?
   (a) 1 and 2   (b) 2 and 3
   (c) 1 and 3   (d) 1,2 and 3

9. Consider the following pairs
   1. HAMAS –. Palestine.
   2. Fatah-Israel
   Which of the pair/s given above is/are correct?
   (a) 1 only   (b) 2 only
   (c) Both 1 and 2   (d) Neither 1 nor 2

10. Which of the following statements regarding the Japanese Encephalitis Virus (JEV) is correct
    (a) It is caused by the flavivirus that affects the membranes around the brain.
    (b) The disease is transmitted from one person to another when they come in contact with the saliva of the infected person.
    (c) NS1 is a protein that acts as a biomarker to identify JEV
    (d) All are correct

Solutions

1. **(b):** The ministry of education has approved the scheme of Rashtriya Uchchatar Shiksha Abhiyan (RUSA) for continuation till March 31, 2026, or till further review, whichever is earlier.
   RUSA is a Centrally Sponsored Scheme (CSS) launched in 2013 aims at providing strategic funding to eligible state higher educational institutions.
   For general category states, the funding ratio is 60:40 between Centre and state. For special category states (Northeast states, Sikkim, Himachal Pradesh and Uttarakhand), the funding ratio is 90:10 and it is 100 per cent central grants for UTs without Legislature.

2. **(c):** India and the UAE on Friday signed a Comprehensive Economic Partnership Agreement (CEPA) that is set to benefit about 90 per cent of trade between the two countries.
   The UAE-India CEPA is India's first bilateral trade agreement in the Middle East and North Africa (Mena) region.

3. **(d):** The first rocket developed by ISRO was simply called SLV, or satellite launch vehicle. It was followed by the Augmented Satellite Launch Vehicle or ASLV which was replaced by PSLV.

PSLV:
- PSLV's first launch was in 1994.
- It was developed to launch Low Earth Orbit satellites into Polar and Sun Synchronous Orbits.

GSLV:
- Geosynchronous Satellite Launch Vehicle was developed to launch the heavier INSAT class of Geosynchronous satellites into orbit. In its third and final stage, GSLV uses the indigenously developed Cryogenic Upper Stage.
- It carried the Chandrayaan-2 mission, and is slated to take the Gaganyaan manned space mission as well on GSLV MK III.
- It can take 10,000-kg satellites to the lower earth orbits. Mk-III versions have made ISRO entirely self-sufficient for launching its satellites. Before this, it used to depend on the European Arianne launch vehicle to take its heavier satellites into space.

Small Satellite Launch Vehicle, or SSLV :
- ISRO has also developed a launch vehicle specifically for small and micro-satellites.
- SSLV is meant to offer cost-effective launch services for satellites up to 500 kg.
- The inaugural SSLV launch is supposed to carry an indigenous earth observation satellite EOS-03 into space.

4. **(b):** **Inter-Operable Criminal Justice System (ICJS)**
- It is a project by the Ministry of Home Affairs
- The project will be implemented as a central sector scheme
- National Crime Records Bureau (NCRB) will be responsible for the implementation of the project in association with the National Informatics Centre (NIC).
- ICJS is a national platform for enabling integration of the main IT system used for the delivery of Criminal Justice in the country. It seeks to integrate the five pillars of the system viz Police (through Crime and Criminal Tracking and Network Systems), e-Forensics for Forensic Labs, e-Courts for Courts, e-Prosecution for Public Prosecutors and e-Prisons for Prisons.

5. **(c):** **Minsk Agreements:**
1. Minsk I: Ukraine and the Russian-backed separatists agreed on a 12-point ceasefire deal in the capital of Belarus in September 2014. Its provisions included prisoner exchanges, deliveries of humanitarian aid, and the withdrawal of heavy weapons. The agreement quickly broke down, with violations by both sides.
2. Minsk II: In 2015, an open conflict was averted after the 'Minsk II' peace agreement was signed, under the mediation of France and Germany. It was designed to end the fighting in the rebel regions and hand over the border to Ukraine's national troops.

6. **(a):** EPR was introduced in the Plastic Waste Management (PWM) Rules, 2011, and was largely redefined in PWM 2016 wherein producers, importers, and brand owners who introduce products in the market were asked to take primary responsibility for the collection of used multi-layered plastic sachets or pouches or packaging

To eliminate single-use plastics, the Environment Ministry has recently notified comprehensive guidelines on Extended Producer Responsibility (EPR) for plastic packaging Announcing the notification of the new Plastic Waste Management (Amendment) Rules, 2022.
- As per the new rules, the online system will be developed by CPCB for the registration as well as for filing of returns by producers, importers, and brand-owners shall reflect the plastic packaging material introduced in the market by them in a financial year
- **The new rules classify plastics into four categories-**
- ➤ category 1 will include rigid plastic packaging;
- ➤ category 2 will include flexible plastic packaging of a single layer or multilayer (more than one layer with different types of plastic), plastic sheets and covers made of plastic sheet, carry bags, plastic sachet or pouches.
- ➤ Category 3 will include Multi-layered plastic packaging (at least one layer of plastic and at least one layer of material other than plastic)
- ➤ category 4 will include plastic sheets or like used for packaging as well as carry bags made of compostable plastics fall under
- ➤ The online system will be developed by CPCB for the registration as well as for filing of returns by producers, importers, and brand-owners shall reflect the plastic packaging material introduced in the market by them in a financial year.

7. **(a):** Green hydrogen is produced using renewable power from wind or solar sources by electrolysis process — which uses electricity to split water molecules into H2 and oxygen

    The cost of producing electrolytic hydrogen with renewables cost nearly double the price of using coal as solar-powered electrolysers can cost as much as six times as those powered by natural gas.

8. **(b):NHRC:**
    - It is a statutory basis by the Protection of Human Rights Act, 1993 (PHRA).
    - It studies treaties and other international instruments on human rights and makes recommendations for their effective implementation
    - The NHRC consists of The chairperson and five members (excluding the ex-officio members).
    - A Chairperson should be a Chief Justice of India or a Judge of the Supreme Court. The sitting Judge of the Supreme Court or sitting Chief Justice of any High Court can be appointed only after the consultation with the Chief Justice of the Supreme Court.
    - The **tenure** of the chairman and other members of the **National Human Rights Commission** is 3 years up to 70 years whichever is maximum.

9. **(a):** Hamas and Fatah are two Palestinian Islamic fundamentalists, militant, and nationalist organizations.

10. **(d):Japanese Encephalitis Virus**
    - It is a disease caused by a flavivirus that affects the membranes around the brain.
    - It is the major cause of Acute Encephalitis Syndrome (AES) in India.
    - The disease is transmitted to humans through bites from infected mosquitoes of the Culex species.
    - Migratory birds along with pigs in the community also play an important role in the transmission of JE from one area to another area. There is no antiviral treatment for patients with JE.
    - Non-Structural 1 (NS1) secretory protein, which is a suitable biomarker for JEV found circulating in the blood and has been reported to elicit an immune response

SET 03

1. Consider the following statements regarding Lavender cultivation
    1. Purple revolution refers to promoting Lavender cultivation.
    2. Promoting Lavender cultivation is one of the major aims of the Ministry of Science and Technology's AROMA mission
    Which of the statements given above is/are correct?
    (a) 1 only   (b) 2 only
    (c) Both 1 and 2   (d) Neither 1 nor 2

2. Consider the following statements regarding the Quality Council of India
    1. The Quality Council of India is an autonomous body under the aegis of the Ministry of Commerce and Industry
    2. It works to assure quality standards across all spheres of economic & Social activities including the education sector.
    Which of the statements given above is/are correct?
    (a) 1 only   (b) 2 only
    (c) Both 1 and 2   (d) Neither 1 nor 2

3. Consider the following statements regarding the co-location facility
    1. A co-location facility provides access to the exchange's stock price feeds ahead of the rest of the market.
    2. It is declared illegitimate by SEBI
    Which of the statements given above is/are correct?
    (a) 1 only   (b) 2 only
    (c) Both 1 and 2   (d) Neither 1 nor 2

4. Consider the following statements regarding national stock exchange
   1. NSE was the first dematerialized electronic exchange in the country
   2. The NIFTY 50 is the flagship index of NSE.
   3. It was the world's largest derivatives exchange in the year 2021 by the number of contracts traded.
   Which of the statements given above is/are correct?
   (a) 1 and 2   (b) 2 and 3
   (c) 1 and 3   (d) 1,2 and 3

5. Consider the following statements regarding Byanjana Dwadashi
   1. It is celebrated by adherents of Vaishnavism commemorating an episode of the Mahabharata
   2. The festival is celebrated in the state of Odisha.
   Which of the statements given above is/are correct?
   (a) 1 only   (b) 2 only
   (c) Both 1 and 2   (d) Neither 1 nor 2

6. Consider the following statements regarding Giant Metrewave Radio Telescope (GMRT)
   1. It has been accorded 'Milestone' facility status by the Institute of Electrical and Electronics Engineers (IEEE).
   2. GMRT is an indigenous project of India.
   3. The Giant Metrewave Radio Telescope (GMRT) Observatory situated at Gujrat
   Which of the statements given above is/are correct?
   (a) 1 and 2   (b) 2 and 3
   (c) 1 and 3   (d) 1,2 and 3

7. Consider the following statements regarding non-fungible token
   1. A non-fungible token is a unique and non-interchangeable unit of data stored on a digital ledger.
   2. The ownership of the asset transmitted is guaranteed by these tokens
   Which of the statements given above is/are correct?
   (a) 1 only   (b) 2 only
   (c) Both 1 and 2   (d) Neither 1 nor 2

8. The Chennai Declaration", the term is frequently seen in the news in the context of-
   (a) Preventing Antimicrobial resistance
   (b) Tsunami preparedness Roadmap
   (c) Saving wetlands
   (d) Saving Mangroves

9. Athenpot Thinba' seen in the news recently is
   (a) Tribal Paintings
   (b) Organic farming
   (c) Gift presentation tradition
   (d) Martial art

10. Consider the following statements regarding International Mother Language Day
   1. The initiative to celebrate International Mother Language Day was the initiative of Bangladesh
   2. The theme of International Mother Language Day in 2022 is "fostering multilingualism for inclusion in education and society"
   Which of the statements given above is/are correct?
   (a) 1 only   (b) 2 only
   (c) Both 1 and 2   (d) Neither 1 nor 2

Solutions

1. **(c):** The Purple or Lavender Revolution was launched in 2016 by the Union Ministry of Science & Technology through the Council of Scientific & Industrial Research's (CSIR) Aroma Mission. Lavender cultivation is practiced in almost all the 20 districts of Jammu & Kashmir/
   Recently a key decision was taken to commence **Purple Revolution** in Ramban District by encouraging **'Lavender Cultivation under the CSIR-IIIM's Aroma Mission** through the Ministry of Science and Technology on the lines of Doda and Reasi districts.
   Under the mission, first-time farmers were given free lavender saplings, while those who had cultivated lavender before were charged Rs. 5-6 per sapling.

2. **(b):** ▪ QCI was set up through a PPP model as an independent autonomous organization with the support of the Government of India and the Indian Industry represented by the three premier industry associations,
   ✓ (i) Associated Chambers of Commerce and Industry of India (ASSOCHAM),
   ✓ (ii) Confederation of Indian Industry (CII) and
   ✓ (iii) Federation of Indian Chambers of Commerce and Industry (FICCI).
   ▪ QCI is a non-profit organization registered under the Societies Registration Act XXI of 1860.
   ▪ The Department of Industrial Policy and Promotion, Ministry of Commerce and Industry was designated as the nodal point for all matters connected with the quality of activities including education, healthcare, environment protection, governance, social sectors, infrastructure sector, and such other areas of organized activities that have a significant bearing in improving the quality of life and wellbeing of the citizens of India.

3. **(a):** Recently a handful of brokers who profited hugely by exploiting the loopholes in NSE's colocation facility and got access to the exchange's stock price feeds ahead of the rest of the market were put under the CBI Scan.

    Colocation means a broker is allowed to place his IT servers right next to NSE's servers, for a fee. This is legitimate and allows brokers faster access to the price feeds as soon as they are broadcast by the NSE's trading engine to all members. But some brokers were able to subvert rules and get access to the price feed ahead of the rest of the market on a regular basis.

    It is not illegal but was unfair to those brokers who could not afford it. Non-colocation brokers would receive the prices with a lag, and this lag would be anywhere between a few milliseconds to a second or maybe even more, depending on the physical distance from the exchange's servers.

4. **(d):** **National Stock Exchange of India Limited** (**NSE**) is the leading stock exchange of India, located in Mumbai, Maharashtra. It is the world's largest derivatives exchange in 2021 by the number of contracts traded based on the statistics maintained by the Futures Industry Association (FIA), a derivatives trade body.

    SE was established in 1992 as the first dematerialized electronic exchange in the country. NSE was the first exchange in the country to provide a modern, fully automated screen-based electronic trading system

    The **NIFTY 50** is a benchmark Indian stock market index that represents the weighted average of 50 of the largest Indian companies listed on the National Stock Exchange. It is one of the two main stock indices used in India, the other being the BSE SENSEX.

5. **(c):** Byanjana Dwadashi is celebrated by adherents of Vaishnavism, which considers Vishnu and his incarnations such as Krishna as the Supreme Godhead.

    Vaishnavites, through this festival, commemorate an episode of the Mahabharata where Yashoda observes that her son Krishna is pale and weak. She realizes that this is because of a lack of proper nutrition at a time when Krishna has devoted all his energy in fighting demons.

    Byanjana Dwadashi festival is celebrated in **Odisha's temple town** of Puri. This festival is a gastronomic and epicurean delight with at least 701 dishes being prepared

6. **(a):** It is operated by the National Centre for Radio Astrophysics of the Tata Institute of Fundamental Research (NCRA-TIFR). GMRT is an indigenous project. Its design is based on the `SMART' concept - for Stretch Mesh Attached to Rope Trusses. It functions at the meter wavelength part of the radio spectrum

    The Giant Metrewave Radio Telescope (GMRT) Observatory situated at Khodad, Pune, Maharashtra was also accorded the 'Milestone' facility status by the Institute of Electrical and Electronics Engineers (IEEE). The status recognizes GMRT's contributions to exploring the Universe through the field of Radio Astronomy. It is the 3rd Indian Project in 125 years to get such recognition.

7. **(c):** A non-fungible token is a unique and non-interchangeable unit of data stored on a digital ledger.

    They're bought and traded online, often using cryptocurrency,

    Physical money and cryptocurrencies are "fungible," meaning they can be traded or exchanged for one another. They're also equal in value—one dollar is always worth another dollar nfts are different. Each has a digital signature that makes it impossible for nfts to be exchanged for or equal to one another (hence, non-fungible). So You can't break most nfts into smaller denominations, and you can't buy or transfer a portion of them.

    The blockchain network is where NFT is kept. As a result, the certificate of ownership is available on different networks, allowing the owner of a digital item to be proven.

    The ownership of the asset transmitted is guaranteed by these tokens and subsequently, They are easily transferred and unaffected by fraud.

8. **(a):** The Chennai Declaration, a consortium of doctors and healthcare institutions was formed against AMR in 2012 to draw up a road map.

    The Declaration has looked into all major aspects of the problem of antimicrobial resistance, has suggested practical solutions, explained in detail the responsibility of each and every stakeholder

9. **(c):** Firal Chingkhatpa is a flag hoisting ceremony practiced in Manipur. It is a solemn segment of athenpot thinba, a gift presentation tradition that began centuries ago. This required the primarily agrarian people of Imphal Valley and the surrounding hills to gift a fair share of their farm produce to the kings as a token of respect.

10. **(c):** The idea to celebrate International Mother Language Day was the initiative of Bangladesh. In Bangladesh, 21 February is the anniversary of the day when the people of Bangladesh (then East Pakistan) fought for recognition for the Bangla language. The theme of the 2022 International Mother Language Day is 'Using technology for multilingual learning: Challenges and opportunities.

SET 04

1. Consider the following statements regarding Border Infrastructure and Management
1. The BIM scheme will help in the creation of infrastructure around all the borders including the Maritime borders of Srilanka.
2. This scheme is launched by the Ministry of Home Affairs
Which of the statements given above is/are correct?
(a) 1 only   (b) 2 only
(c) Both 1 and 2   (d) Neither 1 nor 2

2. Normandy Format is seen in the context of which of the following world affairs-
(a) Darfur region in Sudan
(b) Russia and Ukraine
(c) Syria
(d) Israel and Palestine

3. Consider the following statements regarding International Space Station
1. The ISS was launched as a joint effort of Russia and the USA
2. It operates in low-earth orbit.
3. NASA plans to decommission the International Space Station (ISS) by 2031.
4. It is currently the only space station orbiting the earth.
Which of the statements given above is/are correct?
(a) 1 and 2   (b) 2 and 3
(c) 2,3 and 4   (d) 1,2,3 and 4

4. Consider the following statements regarding Exercise Cobra Warrior
1. It is a multination naval exercise organized by the Royal Air Force (RAF) UK.
2. India will be participating in the exercise for the first time.
Which of the statements given above is/are correct?
(a) 1 only   (b) 2 only
(c) Both 1 and 2   (d) Neither 1 nor 2

5. Consider the following statements regarding G20
1. The Union Minister of Foreign Affairs is the "G20 Sherpa" of India.
2. The G20 has a permanent secretariat in Mexico.
3. G20 summit in 2023 will be hosted by India
Which of the statements given above is/are correct?
(a) 1 and 2   (b) 2 and 3
(c) 1 and 3   (d) 1,2 and 3

6. Consider the following statements regarding animation, visual effects, gaming, and comics (AVGC) industry
1. India currently has a 10% market share in the global AVGC industry,
2. Karnataka was the first state to set up an AVGC center of excellence
Which of the statements given above is/are correct?
(a) 1 only   (b) 2 only
(c) Both 1 and 2   (d) Neither 1 nor 2

7. Consider the following statements regarding AI Research SuperCluster (RSC)
1. It is a supercomputer built by CDAC under the national supercomputer mission
2. It is capable of doing quintillions of operations per second
Which of the statements given above is/are correct?
(a) 1 only   (b) 2 only
(c) Both 1 and 2   (d) Neither 1 nor 2

8. Consider the following statements regarding Saltwater Crocodile
1. It is found only in Sunderbans delta and Bhitarkanika national park in India.
2. It has been listed as Least Concern on the IUCN Red List.
3. It can tolerate saltwater in the oceans but can't travel long distances over the open ocean
Which of the statements given above is/are correct?
(a) 1 and 2   (b) 2 and 3
(c) 1 and 3   (d) 2 only

9. Consider the following statements regarding the Kuki tribe:
1. These are ethnic groups native to the Mizo Hills in Mizoram.
2. In northeast India, they are present in all states.
Which of the statements given above is/are correct?
(a) 1 only   (b) 2 only
(c) Both 1 and 2   (d) Neither 1 nor 2

10. Eastern Bridge-VI' is a bilateral military exercise between India and
(a) UAE   (b) Oman
(c) Thailand   (d) UK

Solutions

1. (b): The Government has approved the continuation of the Central Sector Umbrella Scheme of "Border Infrastructure and Management" (BIM). It was launched under the aegis of the **Ministry of Home Affairs.**

The BIM scheme will help in the creation of infrastructures such as the construction of border fences, border floodlights, technological solutions, border roads, and Border Outposts (BOPs)/Company Operating Bases (COBs) to secure the Indo-Pakistan, Indo-Bangladesh, Indo-China, Indo-Nepal, Indo-Bhutan and Indo-Myanmar borders.

2. (b): The Minsk agreements were a series of international agreements which sought to end a war between Russia and Ukraine in the Donbas region of Ukraine.

The first agreement, known as the **Minsk Protocol** or **Minsk Accord I**, was drafted in 2014 by the Trilateral Contact Group on Ukraine, consisted of

- Ukraine
- Russian Federation
- Organization for Security and Co-operation in Europe (OSCE) and with mediation by the leaders of France and Germany in the called **Normandy Format.**

Normandy Format talks involve four countries, Germany, Russia, Ukraine, and France, whose representatives met informally during the 2014 D-Day celebration in Normandy, France, in an effort to resolve the war in Donbas Donbas region of Ukraine

After extensive talks in Minsk, Belarus, the agreement was signed on 5 September 2014 by representatives of the Trilateral Contact Group and, without recognition of their status, by the then-leaders of the self-proclaimed Donetsk People's Republic (DPR) and Luhansk People's Republic (LPR).

3. (b): International space station:
- NASA plans to decommission the International Space Station (ISS) by 2031.
- The ISS was launched in 1998 as part of joint efforts by the U.S., Russia, Japan, Canada, and Europe. It operates in low-earth orbit.
- The limitations on the life-cycle of the station are catching up. The ISS goes through 16 rotations of the earth per day, causing extreme temperature changes on the exterior. This orbital thermal cycling, coupled with dynamic loading, affects the longevity of the primary structure of the space station.
- It will be removed from the orbit and will plunge it into the ocean, leading it to Point Nemo over the South Pacific Oceanic Uninhabited Area (SPOUA)
- Tiangong ('Heaven's Palace') is China's program to create a modular space station, launched in 2021. This program is independent and unconnected to any other international space-active countries. The program began in 1992 as Project 921-2.

4. (a): Indian Air Force will participate in a multi-nation air exercise named 'Exercise Cobra Warrior 22' at Waddington, in the United Kingdom

Exercise Cobra Warrior is one of the largest annual exercises by the Royal Air Force (RAF). India will be participating in the exercise for the first time. Other countries participating are the United Kingdom, Sweden, Saudi Arabia, and Bulgaria.

5. (c): G20 is a major international grouping that brings together 19 of the world's major economies and the European Union, with its members accounting for more than 80% of global GDP, 75% of global trade, and 60% of the global population.

India will be holding the G20 Leaders' Summit in 2023 for the first time.

Commerce and Industry Minister Piyush Goyal, is the current "G20 Sherpa" conducting international negotiations at the level of G20.

The G20 does not have a permanent secretariat or Headquarters.

6. (c): In January, Karnataka was the first state to set up an AVGC center of excellence. India currently has a 10% market share in the global AVGC industry, and the potential to capture 25% of the market by 2027.

7. (b): Facebook the parent company of Meta has announced recently that it is building an AI supercomputer, the AI Research SuperCluster (RSC).

Meta considers the RSC as a powerful supercomputer capable of quintillions of operations per second. It can perform tasks like translating text between languages and help identify potentially harmful content on Meta's platform.

8. (d): Saltwater Crocodile:

It is found in three locations in India — the Sundarbans, Bhitarkanika National Park, and the Andaman and Nicobar Islands.

It is one of the three crocodilians native to the Indian Subcontinent, along with the mugger crocodile (*Crocodylus palustris*) and the gharial (*Gavialis gangeticus*).

It has been listed as Least Concern on the IUCN Red List since 1996.

It is also found in Bangladesh, Malaysia, Indonesia, Brunei, the Philippines, Papua New Guinea, Australia, and the Solomon Islands.

It is also called the 'estuarine crocodile' and as the name suggests, is typically found in the brackish water of estuaries.

It can also tolerate saltwater in the oceans and can travel long distances over the open ocean, making use of tidal currents.

9. (a): The Centre has assured it will hold peace talks with all Kuki militant groups and their issue would be resolved in the next five years. Militant outfits such as the Kuki National Organisation and the United People's Front were demanding a separate State for the Kuki tribe in Manipur. Basically, the Kuki people are an ethnic group native to the Mizo Hills (formerly Lushai) in Mizoram. In northeast India, they are present in all states except Arunachal Pradesh.

10. (b): To bolster operational efficiency through interoperability, the Indian Air Force (IAF) and Royal Air Force of Oman (RAFO) are participating in a bilateral exercise named 'Eastern Bridge-VI' from 21 to 25 February 2022 at Air Force Station Jodhpur. The 6th edition of the exercise is aimed at providing an opportunity to enhance operational capability and interoperability between the two Air Forces.

SET 05

1. Consider the following statements regarding National Strategy for Additive Manufacturing
   1. It aims to increase India's share in global additive manufacturing to 5 percent by 2025
   2. Additive manufacturing refers to the construction of a three-dimensional object from a digital 3D model by adding materials layer by layer.
   3. The nodal agency for this will by the ministry of Commerce and Industry

   Which of the statements given above is/are correct?
   (a) 1 and 2   (b) 2 and 3
   (c) 1 and 3   (d) 1,2 and 3

2. Consider the following statements regarding Bhasha Sangam initiative
   1. Bhasha Sangam is an initiative of the Department Of Official Languages
   2. It aims to teach basic sentences of everyday usage in 22 Indian languages.
   3. Bhasha Sangam initiative for Schools is developed by NCERT.

   Which of the statements given above is/are correct?
   (a) 1 and 2   (b) 2 and 3
   (c) 1 and 3   (d) 1,2 and 3

3. "A Bloatware is Potentially Unwanted Programs (PUP) for a computer system because-
   (a) It is a computer virus that overwrites the code of the host computer system's file with its own malicious code. Ancient dance form
   (b) It is malware that can provide unauthorized access to your computer, send your files to other computers
   (c) It alters the boot sector program stored in the hard disk
   (d) It takes up the storage of the device and affects performance

4. Consider the following statements regarding Swami Dayanand
   1. He opposed idolatry, rituals, and priesthood.
   2. He considered the Vedas to be fallible.
   3. He founded the arya samaj

   Which of the statements given above is/are correct?
   (a) 1 and 2   (b) 2 and 3
   (c) 1 and 3   (d) 1,2 and 3

5. Consider the following statements regarding the GOBAR-DHAN scheme
   1. It aims to generate biomass from cow dung and animal excreta
   2. This scheme is launched by Ministry of renewable energy
   Which of the statements given above is/are correct?
   (a) 1 only   (b) 2 only
   (c) Both 1 and 2   (d) Neither 1 nor 2

6. Consider the following statements regarding Dry root rot disease
   1. High-temperature drought conditions and low soil moisture content are favorable conditions for dry root rot (DRR)
   2. It is a disease that damages the roots or girdles the trunk in chickpea.
   Which of the statements given above is/are correct?
   (a) 1 only   (b) 2 only
   (c) Both 1 and 2   (d) Neither 1 nor 2

7. Which of the following statements regarding UN Security Council is incorrect?
   (a) It has 15 Members, and each Member has one vote.
   (b) The nonpermanent members Of the UN are elected on a regional basis to serve a term of one year.
   (c) The body's presidency rotates bimonthly among its members.
   (d) India currently holds the presidency in the UNSC as a non-permanent member of the UNSC

8. Recently 'SPARSH', the portal was in news. The aim of the SPARSH portal is to-
   (a) Providing the disbursal of provident fund to employees
   (b) Providing vocational skills-based online courses for youngsters
   (c) Providing the one place platform for scholarships to be availed for Higher education
   (d) Easing the disbursal of defense pensions.

9. Consider the following statements regarding P-8I aircraft
   1. P-8I' for India is a long-range maritime patrol aircraft
   2. India has acquired P-8I aircraft from Israel.
   Which of the statements given above is/are correct?
   (a) 1 only   (b) 2 only
   (c) Both 1 and 2   (d) Neither 1 nor 2

10. Which of the following has recently become the country's first-ever cheetah sanctuary?
    (a) Gandhi Sagar Wildlife Sanctuary
    (b) Nauradehi Wildlife Sanctuary
    (c) Kuno palpur national park
    (d) Corbett National Park

Solutions

1. **(a):** Additive manufacturing or 3D printing is defined as the technology that constructs a three-dimensional object from a digital 3D model or a Computer-aided design (CAD) model by adding material layer by layer.
   As per the National Strategy for Additive Manufacturing India aims to increase its share in global additive manufacturing to 5 percent by 2025 and add $ 1 billion to the gross domestic product by that time.
   Nodal ministry-Ministry of Electronics and Information Technology (meity)
   Note that :
   USA's market share on AM is 36%, followed by EU as 26% and China as 14%, and India holding a meager 1.4% of the global market share.\

2. **(b):** Bhasha Sangam is an initiative of the Ministry of Education under Ek Bharat Shreshtha Bharat, to teach basic sentences of everyday usage in 22 Indian languages. To ensure that people could acquire basic conversational skills in an Indian language other than their mother tongue.
   Bhasha Sangam initiative for Schools is developed by NCERT.

3. **(d):** Bloatware is unwanted and potentially harmful software loaded onto new devices. Also known as potentially unwanted programs (PUP), bloatware is often pre-installed by vendors, manufacturers, or carriers as a form of marketing to put services directly in front of consumers.
   It slows down your devices. That's because the more programs that are downloaded on your device, the more computing power is being used, and — even if you don't use the bloatware program — it's still taking up memory on your computer.

4. **(c):** Swami Dayanand Saraswati laid the foundation of the Arya Samaj and worked towards spreading its teachings. He considered the Vedas as eternal and infallible. He was against idolatry, rituals, and priesthood, and attacked child marriages and the caste system based on birth; encouraging inter-caste marriages and widow marriages. He considered the Puranas to be full of falsehood.
   Arya samaj held that the Vedas contained all the knowledge imparted to man by God and essentials of modern science could also be traced in them. However, they were against the supremacy of the priestly class and priesthood.

5. **(a):** **What is the GOBAR-DHAN scheme?**
   Ministry of Drinking Water & Sanitation has launched the GOBAR (Galvanizing Organic Bio-Agro Resources) – DHAN scheme in 2018. The scheme is being implemented as part of the Swachh Bharat Mission (Gramin). The scheme aims to positively impact village cleanliness and generate wealth and energy from cattle and organic waste. The scheme also aims at creating new rural livelihood opportunities and enhancing income for farmers and other rural people.

6. **(c):** Indian Scientists have recently identified that high-temperature drought conditions and low soil moisture content are favorable conditions for dry root rot (DRR), a disease that damages the roots or girdles the trunk in chickpea. This work will be useful for the development of resistant lines and better management strategies.
   Dry root rot disease causes reduced vigor, dull green leaf color, poor new growth, and twig dieback. If extensive root damage occurs, the leaves suddenly wilt and dry on the tree.
   It is caused by *phaseolina*, a soil-borne necrotrophic that causes root rot in chickpea.
   Currently, the central and southern states of India have been identified as the prime chickpea DRR hotspots with an overall 5 – 35% disease incidence.

7. **(b):** UNSC:
   ▪ The Security Council consists of fifteen members, of which five are permanent: China, France, Russia, the United Kingdom, and the United States of America
   ▪ The remaining ten members are elected on a regional basis to serve a term of two years. The body's presidency rotates monthly among its members.
   ▪ In its first two decades, the Security Council had six non-permanent members, the first of which were Australia, Brazil, Egypt, Mexico, the Netherlands, and Poland. In 1965, the number of non-permanent members was expanded to ten. These ten non-permanent members are elected by the United Nations General Assembly for two-year terms starting on 1 January, with five replaced each year. To be approved, a candidate must receive at least two-thirds of all votes cast for that seat
   ▪ Recently India assumed the rotating presidency of the United Nations Security Council (UNSC) for the month of August month during its 2021-22 tenure as a non-permanent member of the UNSC.

   ▪ This is India's tenth tenure. So far it has been President of the body **nine times**: June 1950, September 1967, December 1972, October 1977, February 1985, October 1991, December 1992, August 2011, and November 2012.
   ▪ The current Indian Prime minister will be the first Indian prime minister to preside over the United Nations Security Council (UNSC)

8. **(d):** The government has launched an online portal, 'SPARSH', which aims at facilitating and easing the disbursal of defense pensions. The System for Pension Administration Raksha (SPARSH) will be launched in a phased-wise manner for all the pensioners of the Army, the Indian Navy, and the Indian Air Force.
   It is envisaged to ensure the right payment to the right pensioner at the Right time through digital processing of over 30 lakh pensioners.

9. **(a):** The United States had cleared the potential sale of six additional 'P-8I' for India, which is a **Maritime patrol aircraft last year.**
   Recently Aviation and defense colossus Boeing of the USA has delivered this as India's 12th maritime surveillance and anti-submarine warfare.
   The aircraft is designed for "long-range anti-submarine warfare (ASW), anti-surface warfare (asuw), and intelligence, surveillance, and reconnaissance (ISR) missions
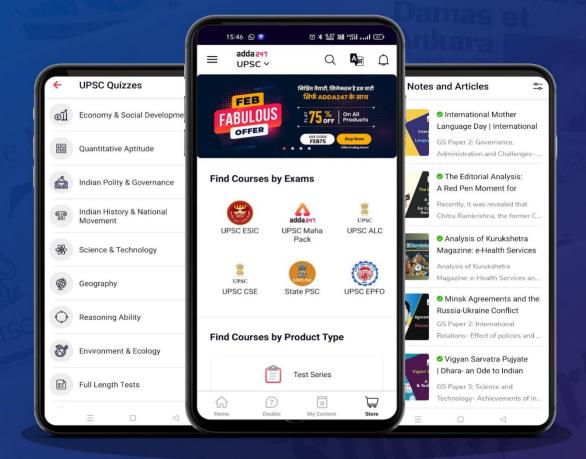   Currently, Only Four countries are using it-USA UK Australia, and India.

10. **(c):** Kuno-Palpur National Park in Madhya Pradesh could become the country's first-ever cheetah sanctuary. Although the plan of bringing cheetahs to India was in the works for more than a decade, it came close to a realization after the Supreme Court's nod in January 2020.

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