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July 2022

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An Initiative By
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(SOCIOLOGY EXPERT)

Learn FINITE

The information in this magazine is intended to provide users with resources and information which they may find useful and of interest.

We take all reasonable steps to keep this information current and accurate, but errors can occur.

We express our gratitude to all our team members and thankful to all the advisors for making first step in publishing a small magazine.

Our Methodology for this Magazine

We have used official website pib.nic.in to collect important press release important for Exam

The topics has been categorised subject wise so that is is easy for aspirants to read in flow and relate the topics

Background information has been provided so static related to current can be covered

Disclaimer

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Our Premium Features

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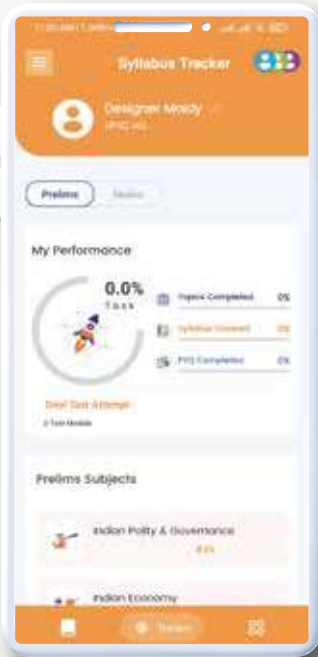
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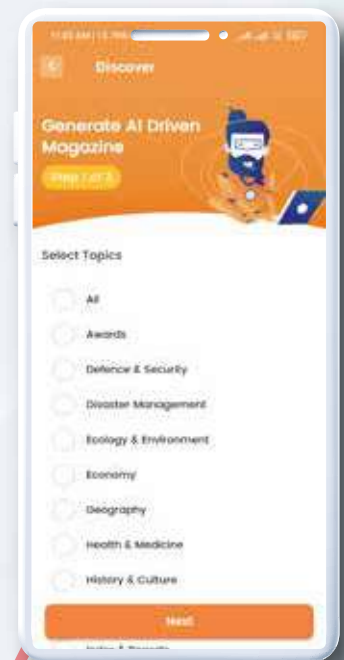
History & Culture

Bonalu festival

In News
- The southern state of Telanga is presently celebrating the famous Bonalu festival.
- The twin cities of Hyderabad and Secunderabad go through absolute madness during July-August as the annual festival of Bonalu is celebrated with intense fun, frolic and fervour.

About Festival
- The festival is dedicated to Goddess Mahakali, thanking her for fulfilling the wishes of her devotees.
- Bonalu is a popular festival celebrated in Hyderabad and Secunderabad. Apart from Yellamma, during the Bonalu festival, the different forms of Mahakali are worshipped, including Mysamma, Dokkalamma, Pedamma, Pochamma, Yellamma, Poleramma and Ankalamma.
- During this, the devotees offer rice cooked with milk and jaggery in an earthen or brass pot, which is decorated with neem leaves, turmeric and vermilion. Women carry these pots on their heads to temples.

125th Jayanti celebrations of Alluri Sitarama Raju

In News
Prime Minister Narendra Modi unveiled a 30-feet bronze statue of freedom fighter Alluri Sitarama Raju celebrating the latter's 125th birth anniversary.

Alluri Sitarama Raju
- Alluri Sitarama Raju, popularly known as 'Manyam Veerdu', led the attack on British forces and became a thorn in their flesh.
- He is a symbol of bravery and courage of tribals, whose glorious life is an inspiration to all.
- He was born in present-day Andhra Pradesh in 1897 or 1898, Alluri Sitarama Raju is known for leading guerrilla resistance against the British in the region at a very early age.
- At the age of 18, Raju became a sanyasi and began visiting the hill and tribal areas of the region.
- Raju was not a tribal himself, but as per Dr Atlury, his "great ability" lay in bringing people from various backgrounds together for the anti-colonial cause. He was eventually captured by the British and executed in 1924.

National Culture Fund

In News
National Culture Fund has completed 52 projects with various donors since its inception.

About NCF
- Government of India has set up National Culture Fund (NCF) as a Trust on 28th November, 1996 under the Charitable Endowment Act, 1890.
- NCF is managed by a (Governing) Council and an Executive Committee.

- The Council is chaired by the Union Minister of Culture and has a strength of 21 including 15 non-official members representing various fields including corporate sector, private foundations and not-for-profit voluntary organizations.
- **AIM**- to establish and nurture partnerships in the field of Culture and Heritage with private and public sectors, government, non-government agencies, private institutions and foundations and mobilize resources for the restoration, conservation, protection and development of India's rich, natural, tangible and intangible heritage.

Objectives

- The major objectives of NCF is to administer and apply the Fund for conservation, maintenance, promotion, protection, preservation and up gradation of monuments protected or otherwise;
- For the training and development of a cadre of specialists and cultural administrators, for innovations and experiments in arts and for documentation of cultural expressions and forms that have lost their relevance in contemporary scenario and are either fading out or facing extinction.

Polity & Governance

MyGov Gujarat

In News

MyGov Gujarat, the 18th MyGov state instance, has been launched recently.

My Gov Portal

- **The citizen centric platform has been launched with 4 key objectives** –
- Discussion Forum on Saving rainwater and sharing water saving tips.
- Discussion Forum on Ease of Living through e Governance.
- Poll on Swachhtha Abhiyaan.
- Blogs on Digital Seva Setu.
- The MyGov Gujarat platform shall empower 6.67 crore Gujaratis to contribute even more, towards nation building.
- **MyGov,** the world's largest citizen engagement platform, was launched by Prime Minister Shri Narendra Modi on **26th July 2014** with the idea of bringing the Government closer to the common man.
- MyGov has evolved into a platform that allows citizens to contribute ideas and suggestions and make participative governance a reality.
- MyGov is also present on almost all social media platforms popular with Indian youth, especially from the far-flung corners of our great country; they played a key role during Covid, supporting MyGov.in by disseminating correct and timely information.
- Our homegrown chatbot, MyGov Helpdesk, is extremely popular with young and old alike and is integrated with many govt services including Cowin and recently, the Digilocker app.

Tele-Law service

In News

From this year, Tele-Law service is being made free of cost for citizens in the country.

About Tele- Law service

- Tele–Law mainstreams legal aid to the marginalized seeking legal help by connecting them with the Panel Lawyers through the tele/video-conferencing infrastructure available at Common Service Centers (CSCs) across 1 lakh Gram Panchayats.
- For easy and direct access Tele- Law Mobile Application (both Android and IoS) has also been launched in 2021 and it is presently available in 22 scheduled languages.
- NALSA through its SLSAs and DLSAs is already working in this regard through Under Trial Review Committee (UTRCs) by making available free legal aid/legal counsel to the undertrials.

Green Energy Open Access

In News

Ministry of Power has notified Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022 in order to further accelerate our ambitious renewable energy programmes, with the objective of ensuring access to affordable, reliable, sustainable and green energy for all.

Salient Features

- These rules are notified for promoting generation, purchase and consumption of green energy including the energy from Waste-to-Energy plants.
- The Green Open Access is allowed to any consumer and the limit of Open Access Transaction has been reduced from 1 MW to 100 kW for green energy, to enable small consumers also to purchase renewable power through open access.
- Consumers are entitled to demand supply of Green Power from Discoms. Discoms would be obligated to procure and supply green power to eligible consumers.
- These Rules will also streamline the overall approval process for granting open access.
- Commercial and Industrial consumers are allowed to purchase green power on voluntarily basis.
- Consumers will be given Green Certificates if they consume green power.

Centre sets up MSP panel

In News

The Centre has constituted a high-powered panel under the chairmanship of former agriculture secretary Sanjay Agarwal to make the minimum support price (MSP) mechanism more effective and transparent.

Objectives of the Committee

- It will work for Agri marketing as per the changing requirements of the country to ensure higher value to the farmers through remunerative prices of their produce by taking advantage of the domestic output and export.
- **On natural farming:** It will suggest programmes and schemes for value chain development, protocol validation and research for future needs and support for area expansion under the Indian Natural Farming System.
- **On crop diversification:** It will look into the mapping of existing cropping patterns of agro-ecological zones of producer and consumer States.
- Review and suggestion on micro irrigation scheme

Need of MSP

- Support farmers from distress sales.

- To procure food grains for public distribution
- To safeguard farmers from market price fluctuations.
- Maintain a healthy supply of food grains in the market thereby helping in the fight against hunger.
- The guaranteed price for the crops and assured markets encourage higher investment and adoption of modern farming practices.

Steps taken by the Government to make online education more conducive

In News
In order to ensure that every student including those residing in rural and educationally backward districts of the country, gets continues access educational, a multi-pronged approach has been adopted by the Dept. of School Education and Literacy, Ministry of Education.

Measures taken by govt.
- **PM e-Vidya** has been started as part of Atma Nirbhar Bharat Abhiyan on 17th May, 2020, which unifies all efforts related to digital/ online / on-air education to enable multi-mode access to education.
- DIKSHA the nation's digital infrastructure for providing quality e-content for school education in states/UTs: and QR coded Energized Textbooks for all grades (one nation, one digital platform)
- One earmarked Swayam Prabha TV channel per class from 1 to 12 (one class, one channel)
- Extensive use of Radio, Community radio and CBSE Podcast- Shiksha Vani
- Special e-content for visually and hearing impaired developed on Digitally Accessible Information System (DAISY) and in sign language on NIOS website/ YouTube
- Where the digital facility (mobile device/DTH television) is not available, Ministry of Education has taken many initiatives like Community Radio Stations and a podcast called Shiksha Vani of CBSE, Textbooks, worksheet supplied to residence of learners, Handbook on 21st Century Skills and community/mohalla classes are organized.
- **PRAGYATA guidelines** were issued to the States/UTs to facilitate continued education through various modes.
- The guidelines inter-alia include situation where internet connectivity is not available or available with very less bandwidth, resources are shared through various platforms like television, radio etc. that do not depend on internet.
- The Ministry has undertaken a proactive initiative, named, 'MANODARPAN' covering a wide range of activities to provide psychosocial support to students, teachers and families for Mental Health and Emotional Wellbeing during the COVID outbreak and beyond.

Flag Code of India 2022

In News
The Centre is encouraging citizens to hoist the national flag on their houses between August 13 and 15 as part of the Har Ghar Tiranga campaign.

Har Ghar Tiranga
- It is a campaign under the aegis of Azadi Ka Amrit Mahotsav to encourage people to bring the Tiranga home and to hoist it to mark the 75th year of India's independence. (people are encouraged to hoist a flag in their home from 13 to 15th August)
- Art 51A(a) – To abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem.

Flag Code of India

- The Flag Code of India is a set of laws and conventions concerning the use, display, and hoisting of the Indian national flag in the country.
- It was brought into effect on January 26, 2002.
- It states that a member of the public, private organisation, or educational institute is allowed to hoist the national flag on all days and occasions, ceremonial or otherwise, consistent with the dignity and honour of the flag.
- The code has been divided into three parts.
- The first part contains a general description of the national flag.
- The second part talks about the display of the flag by members of the public, private organisations, and other institutions.
- The third part is about the display of the national flag by central and state governments, and their organisations/agencies.
- On July 20, 2022, the Centre amended the Flag Code of India, allowing the national flag to be flown both in the day and at night if it is displayed in the open or on the house of a member of the public. Earlier, the tricolour could be hoisted only between sunrise and sunset.

Economy

Udyami Bharat

In News

The Prime Minister, Shri Narendra Modi participated in the 'Udyami Bharat' programme and launched key initiatives like 'Raising and Accelerating MSME Performance' (RAMP) scheme, 'Capacity Building of First-Time MSME Exporters' (CBFTE) scheme and new features of the 'Prime Minister's Employment Generation Programme' (PMEGP) to ramp up the MSME sector.

Udyami Bharat Programme

- Udyami Bharat' is reflective of the continuous commitment of the government, to work towards empowerment of MSMEs.
- Under this Government has launched several initiatives from time to time like MUDRA Yojana, Emergency Credit Line Guarantee Scheme, Scheme of Fund for
- Regeneration of Traditional Industries (SFURTI) etc. to provide necessary and timely support to the MSME sector, which has helped benefit crores of people across the country.

RAMP Scheme

- The scheme with an outlay of around Rs 6000 crore, **aims** to scale up the implementation capacity and coverage of MSMEs in the States, with impact enhancement of existing MSME schemes.
- It will complement the Aatmanirbhar Bharat Abhiyan by fostering innovation, encouraging ideation, incubating new business and entrepreneurship by developing quality standards, improving practices and processes, enhancing market access, deploying technological tools and Industry 4.0 to make MSMEs competitive and self-reliant.

CBFTE

- '**Capacity Building of First-Time MSME Exporters'** (CBFTE) scheme aims to encourage MSMEs to offer products and services of international standards for the global market.

- This will enhance the participation of Indian MSMEs in the global value chain and help them realise their export potential.

PMEGP
New features of the 'Prime Minister's Employment Generation Programme' (PMEGP) include an increase in the maximum project cost to Rs 50 lakhs (from Rs 25 lakhs) for the manufacturing sector and Rs 20 lakhs (from Rs 10 lakhs) in the service sector and inclusion of applicants from Aspirational districts & Transgenders in the Special Category applicants for availing higher subsidies.

Business Reforms Action Plan for the year 2020 declared

In News
Andhra Pradesh, Gujarat, Haryana, Karnataka, Punjab, Tamil Nadu and Telangana are the **Top Achievers** based on implementation of Business Reforms Action Plan.

Major Highlights
- Himachal Pradesh, Madhya Pradesh, Maharashtra, Odisha, Uttarakhand and Uttar Pradesh figure under the **Achievers** category. While Assam, Chhattisgarh, Goa, Jharkhand, Kerala, Rajasthan and West Bengal have been placed in the **Aspirers** category.
- Andaman & Nicobar, Bihar, Chandigarh, Daman & Diu, Dadra & Nagar Haveli,Delhi, Jammu & Kashmir, Manipur, Meghalaya, Nagaland, Puducherry and Tripura have been clubbed under the **Emerging Business Ecosystems** category**.

BRAP 2020
- The BRAP 2020 includes 301 reform points covering 15 business regulatory areas such as Access to Information, Single Window System, Labour, Environment, Land Administration & Transfer of Land and Property, Utility Permits and others.
- 118 new reforms were included to further augment the reform process.
- The broader aim is to boost investor confidence, foster business friendly climate and augment Ease of Doing Business across the country by introducing an element of healthy competition through a system of assessing states based on their performance in the implementation of Business Reforms Action Plan.

Plastic Ban

In News
A Virtual Workshop on "**Effective Plastic Waste Management to Tackle Plastic Pollution**" was organized under the aegis of the "India-Norway Marine Pollution Initiative" by the Ministry of Environment, Forest & Climate Change (MoEF&CC), Government of India.

Single use Plastic Item
- Those items made of plastic, which are only used once and then tossed, adding to mountains of plastic waste in the world. It includes shampoo bottles, sachets, plastic bags made of polyethene, disposable coffee/tea glasses, etc.
- The banned items will include earbuds with plastic sticks, plastic sticks for balloons, plastic flags, candy sticks, ice- cream sticks, polystyrene (Thermocol) for decoration, plastic plates, cups, glasses, cutlery such as forks, spoons, knives, straw, trays, wrapping or packing films around sweet boxes, invitation cards, cigarette packets, plastic or PVC banners less than 100 micron, stirrers.

- Not only the sale, giveaway, or usage of these items will be banned from July 1 but also their production, import from another country, possession, and distribution.
- These items in particular are banned based on the difficulty in recycling or collecting them.

Punishments

- Punishments on this will be meted out under the Environment Protection Act of 1986, under which violators can face a jail term of up to five years or Rs 1 lakh penalty or both.
- Apart from this act, local administrations, including Panchayats, municipal corporations, and district administrations will also be allowed to make their own laws against plastic pollution and single-use plastic.

Village engineers

In News

Minister of Skill Development & Entrepreneurship, Electronics and IT distributed the certificates to the first batch of trainees under Pilot Project for Skilling Tribal Youth - Rural Tribal Technical Training or Grameen Udyami at Raj Bhawan, Bhopal.

Details

- Around 140 Tribal youth turned village engineers were conferred Skill Certificates at a ceremony.
- Training was provided to the beneficiaries in 5 disciplines- electrical and solar energy, agricultural mechanization, e-governance, plumbing and masonry, two wheeler repair and maintenance.
- The pilot project, under the Sansadiya Sankul Pariyojana, was launched on 13th May 2022 for training about 250 beneficiaries of 17 clusters of 17 districts selected from 6 states of India – Madhya Pradesh, Chhattisgarh, Gujarat, Rajasthan, Maharashtra and Odisha.

Significance

- This training will also enable the youth to start their own business, thus generating more employment opportunities for other youth as well.
- The concept of Multi Skilling and turning unemployed youth into village engineers is first of its kind and shall be replicated in other districts.
- The Central Government has appointed a Mahatma Gandhi National Fellow for each district, who will work with the local district collector as the district's public representative in shaping skills according to local requirements.
- This will be divided into farm economy and non-farm economy.
- what type of skills are required there, what type of opportunities exist there, and for skills outside the local community in the state and within the country.

Start-up Ranking 2021

In News

The results of the 3rd edition of Ranking of States' on Support to Start-up Ecosystems will be released by Shri Piyush Goyal, Minister of Commerce and Industry, Consumer Affairs, Food and Public Distribution, and Textiles on 4th July, 2022.

Start-up Ranking

- Start-up Ranking Exercise with the key objective to promote India's vision of competitive and cooperative federalism.

- The exercise was launched in 2018 to encourage states and union territories to work towards easing regulations for the growth of start-ups and strengthening the support to the start-up ecosystem.
- As India becomes one of the leading start-up nation globally, the growth of the entrepreneurship in Tier-II and Tier – III cities in the country has become necessary.
- There were 4 states/UTs with start-up policies in 2016.
- Today, there are over 30 states/UTs who have start-up policies, and 27 states/UTs have their own state start-up portal.

Criteria for Ranking

- This edition had 7 broad Reform Areas consisting of 26 action points which are essential in providing regulatory, policy and economic support to startups and stakeholders of the ecosystem.
- The reform areas included Institutional Support, Fostering Innovation and Entrepreneurship, Access to Market, Incubation support, Funding Support, Mentorship Support and Capacity Building of Enablers.
- New portal for Mentorship, Advisory, Assistance, Resilience, and Growth (MAARG) will also be launched.

MSDE launches DBT scheme

In News

The Ministry of Skill Development and Entrepreneurship (MSDE) announced that **National Apprenticeship Promotion Scheme** (NAPS) will be a part of Direct Beneficiary Transfer (DBT) scheme, providing direct government benefits to all apprentices.

New Change

- Earlier companies used to pay apprentices the entire amount and then seek reimbursement from the government.
- With the launch of the DBT scheme, the government will directly transfer its contribution to bank accounts of apprentices through National Skill Development Corporation (NSDC), 25% of the stipend payable up to Rs. 1500/- per month.

NAPS Scheme

- National Apprenticeship Promotion Scheme (NAPS) was launched on August 19, 2016, to promote apprenticeship training in the country and to provide financial support to establishments undertaking apprenticeship.
- The program aims to motivate employers to hire apprentices and aid them in discovering the right job roles while maximising their potential through in-depth skill development.
- As of today, more than 12 lakh apprentices have been engaged with various industries.
- To skill, reskill and upskill young India, increase per capita economic production, and support national missions, it is imperative to turn apprenticeship into a participatory movement.
- It not only exposes candidates to real-time industrial environments but allows them the opportunity to contribute to the economy even during training.

Significance

- The dream of India becoming the '**Skill Capital of the World**' seems to be on the path to fruition with the introduction of various apprenticeship reforms aimed at building a skilled manpower.
- It is envisioned that these schemes will be further scaled up in the coming years and all contracts will be DBT contracts.

India-EU Trade and Investment

In News
India and the European Union concluded the first round of negotiations for India-EU Trade and Investment Agreements, including the Geographical Indicators (GI), in New Delhi recently.

India- EU trade
- The second round of negotiations is scheduled to take place in September 2022 at Brussels.
- India's bilateral trade with EU amounted to USD 116.36 billion in 2021-22. Despite the global disruptions, the bilateral trade achieved an impressive annual growth of 43.5% in 2021-22.
- Currently EU is India's second largest trading partner after US, and the second largest destination for Indian exports.
- The trade agreement with EU would help India in further expanding and diversifying its exports of goods and services, including securing the value chains.
- Both sides are aiming for the trade negotiations to be broad-based, balanced, and comprehensive, based on the principles of fairness and reciprocity.

RBI Financial Stability Report

In News
Reserve Bank of India (RBI) released its bi-annual Financial Stability Report (FSR).

Major Highlights
- The asset quality of the banking system has improved with the gross non-performing assets (GNPA) ratio declining from 7.4 per cent in March 2021 to a six-year low of 5.9 per cent in March 2022.
- Reason: Banks have reduced the GNPA ratio through recoveries, write-offs and reduction in slippages.
- **Provisioning coverage ratio** (PCR): It improved to70. 9 per cent in March 2022 from 67.6 per cent a year ago.
- PCR is the percentage of funds that a bank sets aside for losses due to bad debts. A high PCR can be beneficial to banks to buffer themselves against losses if the NPAs start increasing faster.
- **Buffer to withstand shocks:** According to the RBI's report, banks, as well as non-banking financial institutions, have sufficient capital buffers to withstand shocks, and support from it during Covid helped banks arrest their GNPA ratio.
- The report cautioned that the advent of fintech has exposed the banking system to new risks such as safeguarding of data privacy, cyber security, consumer protection, competition and compliance with AML (anti-money laundering) policies.
- RBI Governor termed cryptocurrencies as a "clear danger" and anything that derives value based on make-believe, without any underlying, is just "speculation under a sophisticated name".

Ranking of States' Exercise 2021

In News
- The results of the third edition of Ranking of States on Support to Startup Ecosystems were released by Shri Piyush Goyal, Minister of Commerce and Industry.
- For the purposes of the Ranking, States and Union Territories are classified into 5 Categories, viz. Best Performers, Top Performers, Leaders, Aspiring Leaders and Emerging Start-up Ecosystems.

Top Performers

- Gujarat and Karnataka emerged as the **Best Performers** in a category of States which included NCT of Delhi. Meghalaya won the top honour among UTs and North-eastern (NE) States.
- While Kerala, Maharashtra, Orissa and Telangana got the **Top Performers** award among states, Jammu & Kashmir emerged as the **Top Performer** among UTs and NE states.
- Assam, Punjab, Tamil Nādu, Uttarakhand and Uttar Pradesh were adjudged the winners in the **Leaders** category among states; Andaman & Nicobar Islands, Arunachal Pradesh and Goa bagged the Leaders honour among the UTs and NE states.
- Chhattisgarh, Delhi, Madhya Pradesh and Rajasthan were declared as **Aspiring Leaders** among the States.
- Andhra Pradesh and Bihar from States category and Mizoram and Ladakh from the UTs/NE States were clubbed under the Emerging Start-up Ecosystem.

Start-up Ranking Exercise

- The **Department for Promotion of Industry and Internal Trade (DPIIT)** has been conducting the States' Start-up Ranking Exercise since 2018 to facilitate the ease of building a start-up and doing business across the country.
- The exercise has grown in its impact over the last three editions, with 31 participating states and union territories this edition, the highest till date.
- The State Start-up Ranking Exercise aims to support states and union territories in developing their start-up ecosystem and learn from the best practices in each state and union territory.
- The participants were evaluated across **7 broad Reform Areas consisting of 26 Action Points** ranging from Institutional Support, Fostering Innovation and Entrepreneurship, Access to Market, Incubation support, Funding Support, Mentorship Support to Capacity Building of Enablers.

EU law to take on crypto badlands

In News

The European Parliament, Council and Commission approved new provisions on the supervision of cryptoasset service providers (CASPs), consumer protection and environmental safeguards for cryptoassets, including cryptocurrencies like Bitcoin and Ether.

MICA

- It seeks to address concerns like money-laundering, protection of consumers and investors, accountability of crypto firms, stablecoins and the environmental footprint of crypto mining.
- It excludes **NFT** (non-fungible tokens).

Provisions

- MiCA would mandate currencies like stablecoin issuers to maintain minimum liquidity to provide for sudden large withdrawals by users, and the reserves must also be protected from insolvency.
- The European Banking Authority (EBA) has been brought in to supervise stablecoins, and the law asks stablecoin issuers to provide claims to investors free of charge.
- Large coins which are used as a means of payment will be capped at €200 million worth of transactions per day.
- MiCA requires the EBA to maintain a public register of non-compliant crypto asset service providers (CASPs).
- Mandatory to declare Environmental footprint: Under MiCA, crypto companies will be required to declare their environmental and climate footprint.

Innovation in Science Pursuit for Inspired Research (INSPIRE) Program

In News
Union Minister of State (Independent Charge) Science & Technology; has asked government agencies, to reach out to potential Start-Ups and support them, in addition to offering support to those who themselves reach us.

INSPIRE Program
- The scheme is expanding R&D base of the country by building a pipeline of quality human resources and cultivating a talent pool.
- Build the required critical human resource pool for strengthening and expanding the Science & Technology system and R&D base
- It does not believe in conducting competitive exams for identification of talent at any level. It believes in and relies on the efficacy of the existing educational structure for identification of talent.
- INSPIRE has three components:
- Scheme for Early Attraction of Talent (SEATS) -> Awards and internships
- Scholarship for Higher Education (SHE) and
- Assured Opportunity for Research Careers (AORC) -> Fellowship and Faculty Scheme

MANAK Awards
- INSPIRE Awards MANAK (Million Minds Augmenting National Aspiration and Knowledge) is a unique initiative to attract talented school students at an early age to study science and pursue research career apart from fostering a culture of innovation among them.
- Scheme caters to school children in the age group of 10-15 years and studying in Class 6-10.
- INSPIRE Award MANAK scheme targets ten lakh ideas from more than five lakh middle and high schools across the country every year.
- Out of these, one lakh ideas are given INSPIRE Award of Rs. 10,000/-each. So far, more than 16 lakh students of 6-10th classes have presented their ideas on a national S&T platform.

Platform of Platforms (POP) under eNAM

In News
The Union Minister of Agriculture and Farmers Welfare, Shri Narendra Singh Tomar, launched the Platform of Platforms (POP) under the National Agriculture Market (e-NAM) on the sidelines of the State Agriculture and Horticulture Ministers' Conference in Bengaluru, Karnataka.

Features
- POP will facilitate to sell the produce outside their state borders.
- This will increase farmers' digital access to multiple markets, buyers and service providers and bring transparency in business transactions with the aim of improving price search mechanism and quality commensurate price realisation.
- 41 service providers from different platforms are covered under POP facilitating various value chain services like trading, quality checks, warehousing, fintech, market information, transportation etc.
- The PoP will create a digital ecosystem, which will benefit from the expertise of different platforms in different segments of the agricultural value chain.
- The POP can be accessed through e-NAM mobile app which can be downloaded from Google Play Store.
- e-NAM integrates the platform of Service Providers as "Platform of Platforms" which includes Composite Service Providers (Service Providers who provide holistic services for trading of agricultural produce including

quality analysis, trading, payment systems and logistics), Logistics Service Provider, Quality Assurance Service Provider, Cleaning, Grading, Sorting & Packaging Service Provider, Warehousing Facility Service Provider, Agricultural Input Service Provider, Technology Enabled Finance & Insurance Service Provider, Information Dissemination Portal.

e-Nam
- It was launched on 14th April 2016 as a pan-India electronic trade portal linking Agricultural Produce Market Committees (APMCs) across the States.
- It provides for contactless remote bidding and mobile-based anytime payment for which traders do not need to either visit mandis or banks for the same.
- Already 585 mandis in 16 States and 2 Union Territories have been integrated on e-NAM portal and will be soon expanded to cover additional 415 mandis, which will take the total number of e-NAM mandis to 1,000.

National Conference on Methodology of Crop Estimation held

In News
The Directorate of Economics and Statistics (DES), Department of Agriculture & Farmers Welfare (DA&FW) under Ministry of Agriculture and Farmers organised a Conference on Estimation of Crop Production in New Delhi.

About National Conference
- **AIM-** at discussion about various methodologies used by different agencies for crop estimation, sharing their best practices and to tri-angulate the reasons for variation between the estimates generated by different agencies and the way forward to generate responsible agricultural crop estimates.
- Around 300 participants from various fields such as Central Ministries / Departments, State Governments, Private agencies involved in Crop Estimation and FAO participated in the conference.
- The crop estimation methodology used by the Central Government is widespread and covers the highest number of crop for production estimation, the **Mahalanobis Crop Forecasting Centre** (MNCFC) uses remote sensing through satellite imagery for crop estimation and the Institute of Economic Growth uses econometric modelling for the estimation of various crops in the country.

Taranga Hill-Ambaji-Abu Road new rail line

In News
The Cabinet Committee on Economic Affairs chaired by Prime Minister Shri Narendra Modi has approved the construction of **Taranga Hill-Ambaji- Abu Road** new rail line to be constructed by Ministry of Railways at an estimated cost of Rs.2798.16 crore.

Details
- The total length of the new rail line will be 116.65 kms.
- The project will be completed by 2026-27.
- The project will generate direct employment during construction for about 40 lakh mandays.

Significance
- Ambaji is a famous important pilgrimage destination and is one of the 51 Shaktipeeths in India and attracts millions of devotees from Gujarat as well as other parts of the country and abroad every year.
- The construction of this line will facilitate easy travel for these millions of devotees.

- Further, the devotees visiting the Ajitnath Jain temple (one of the 24 holy Jain Tirthankaras) at Taranga Hill would also be greatly benefitted by this connectivity.
- This railway new line between Taranga Hill-Ambaji- Abu Road will connect these two important religious sports with railway's main network.
- This line will facilitate faster movement of agricultural and local products and also provide improved mobility of the people in the region within the state of Gujarat and Rajasthan and also to other parts of the country.

Department of Consumer Affairs launches 'Jagriti', a mascot to empower consumers

In News
The Department of Consumer Affairs (DoCA) has launched "**Jagriti**", a mascot for empowering consumers and generating awareness of their rights.

About Mascot
- **Jagriti** will be projected as an empowered consumer who is spreading awareness about consumer rights & addressing solutions to the problems faced by the consumers.
- The "**Jagriti**" mascot will be used to generate consumer awareness about various themes of the Department like provisions of Consumer Protection Act 2019, Hallmarking, National Consumer Helpline toll free number 1915, provisions of weights & measures Act, decisions of the Central Consumer Protection Authority and testimonials by consumers on grievance redressal.
- By bringing the Jagriti Mascot, DoCA aims to strengthen its consumer awareness campaign presence in digital and multimedia and reinforce a young empowered and informed consumer as a top-of-mind consumer rights awareness recall brand.
- **Jagriti** mascot shall be shown along with tagline "**Jago Grahak Jago**" in all its media campaigns.
- The two are new synonymous with young aware consumers and bring sharp focus to consumer rights knowledge and movement.

Power ministry's POSOCO to run green energy system

In News
The power ministry has notified Power System Operation Corporation Ltd (POSOCO) as the central nodal agency to set up and run a single window green energy system.

POSOCO System
- POSOCO is CPSE under the Ministry of Power to monitor and ensure round-the-clock integrated operation of the Indian Power System in a reliable, efficient and secure manner thus serving a mission-critical activity.
- **Green Energy**: Green energy is that which comes from natural sources, such as the sun.

Benefits
- Approval process will be quicker (POSOCO will approve or reject the applications for green power supply within 15 days)
- Large consumers can now take power (under Green Open Access) without any limits
- Distribution companies can demand a supply of green power from generation companies.
- Uniform renewable purchase obligation on users under the open access norms, including captive consumers and commercial entities, in areas assigned to the discoms.
- Tariffs for green energy will be determined separately by an appropriate commission.

- Under the new norms, the tariff for the green energy will be determined separately by an appropriate commission, and will comprise the average pooled power purchase cost of the renewable energy, cross-subsidy charges if any, and service charges covering the prudent cost of the distribution licensee for providing the green energy.

SAMARTH in collaboration with NTPC organizes Workshop on Biomass use in thermal power plants

In News
National Mission on the use of Biomass in Thermal Power Plants (**SAMARTH)** collaborated with NTPC and organized a one-day workshop in Chandigarh, on ex-Situ utilization of agricultural residue for co-firing in thermal power plants.

About Workshop
- Cofiring is a term used to describe incorporating a secondary fuel with a primary fuel utilizing the same combustion equipment. A common application of cofiring is used in coal-fired power plants where coal use is supplemented with biomass.
- **SAMARTH** was launched by the Ministry of power (2021) and mandates all thermal power plants in India use 5-10% of biomass alongside coal to produce power. Consequently, it promotes research on modern boilers which can handle a greater amount of silica and alkalis in biomass pellets.

Extension of RoSCTL scheme

In News
Ministry of Commerce and Industry recently extended the "Scheme for Rebate of State and Central Taxes and Levies (RoSCTL)" till March 31, 2024.

RoSCTL
- RoSCTL scheme will be continued with the same rates as announced by Textile Ministry for exports of apparel or garments and made-ups.
- Scheme was extended in order to enhance exports and generate employment in textile industry.
- It is a forward-looking and growth-oriented scheme. The scheme has always provided a predictable and stable policy regime.
- It has led to improvement in cost efficiency and export competitiveness in global market.
- Scheme also promoted incubation of start-ups & entrepreneurs in this field.
- Under the scheme, huge number of MSMEs have joined the apparel export business.
- **RoSCTL Scheme** was launched with the aim of reimbursing all embedded State and Central Taxes or Levies for exports of manufactured goods and garments.
- Importer-Exporter Codes (IECs) are required to apply for RoSCTL programme.

'DIGI YATRA' project

In News
Consultative Committee of Ministry of Civil Aviation discusses 'DIGI YATRA' project.

Digi Yatra
- It is a project conceived to achieve contactless, seamless processing of passengers at Airports, based on Facial Recognition Technology (FRT).
- The project basically envisages that any traveller may pass through various check points at the airport through a paperless and contactless processing, using facial features to establish the identity which would be linked to the boarding pass.
- The privacy issues have been taken care of in the system.
- It provides for decentralized mobile wallet-based identity management platform which is cost effective and addresses privacy/data protection issues in implementation of Digi Yatra.
- In first phase, Digi Yatra is proposed to be rolled out at two Airports namely Varanasi and Bengaluru in August 2022.

DYF
- Digi Yatra Foundation (DYF) has been set up as a joint venture (JV) company in 2019 under Section 8 of the Companies Act, 2013 whose shareholders are AAI (26% shares) and BIAL, DIAL, GHIAL, MIAL and CIAL.
- DYF will be a pan-India entity and the custodian of the Passenger ID validation process.
- It will also develop consensus amongst the Aviation Stakeholders in India.
- It would also define the criteria for compliance and guidelines for the local airport systems.

'Mapping and Exchange of Good Practices' Initiative

In News
NITI Aayog and the World Food Programme (WFP), India, will launch the '**Mapping and Exchange of Good Practices'** initiative for mainstreaming millets in Asia and Africa in a hybrid event.

About the initiative
NITI and WFP will prepare a compendium of good practices for scaling up the production and consumption of millets in India and abroad.

About WFP
- It was founded in 1961 by the Food and Agriculture Organization (FAO) and United Nations General Assembly (UNGA) with its headquarters in Rome, Italy.
- It is also a member of the United Nations Sustainable Development Group (UNSDG), a coalition of UN agencies and organizations aimed at fulfilling the Sustainable Development Goals (SDGs).
- The international community has committed to end hunger, achieve food security and improve nutrition by 2030.
- The WFP assists 88 countries, and has assisted 97 million people (in 2019) which is the largest number since 2012.

NITI Aayog
- Planning Commission was replaced by a new institution – NITI Aayog on 1st January, 2015 with emphasis on 'Bottom –Up' approach to envisage the vision of Maximum Governance, Minimum Government, echoing the spirit of 'Cooperative Federalism'.
- **It has two Hubs.**
- Team India Hub acts as interface between States and Centre.
- Knowledge and Innovation Hub builds the think-tank acumen of NITI Aayog.

"Udyamita Pakhwara"

In News
DAY-NRLM, MoRD organized "Udyamita Pakhwara" from 1st to 15th July, 2022.

Udyamita Pakhwara
- The objective of this Udyamita Pakhwara was to highlight the importance of enterprise growth and entrepreneurship development under non-farm livelihoods in rural areas across the country.
- A series of activities under Start-up Village Entrepreneurship Programme (SVEP), One Stop Facility (OSF), Clusters, Incubators, SHG products marketing, PMFME scheme were organised in this duration across the country.
- DAY-NRLM is also facilitating mobilization of SHG individual beneficiaries and groups for support under PMFME scheme of MoFPI.
- Udyamita Pakhwara, Rs. 10.8 Crore were released to SHGs under PMFME for Seed Capital support.
- Activities under Clusters and Incubators schemes were also initiated in the States.
- The focus on capacity building resulted in assessment and certification of 115 master CRP-EPs as per the NSQF norms.

JNPT becomes first 100% Landlord Major Port of India

In News
The PPP mode of investment in Indian ports has made a remarkable progress in the last 25 years, beginning from the Jawaharlal Nehru Port (JNP), resulting in the capacity addition and productivity improvement.

About JNP
- JNP has become the first major port of the country to become 100% Landlord port having all berths being operated on PPP model.
- JNP is one of the leading container ports of the country and is ranked 26th among the top 100 global ports (as per Lloyds List Top 100 Ports 2021 Report).
- Currently, five container terminals are operated at JNP, of which only one is port owned.
- With its state of the art facilities JNP meets all the international standards, user-friendly atmosphere, and excellent connectivity by rail and road to the hinterland.
- The Jawaharlal Nehru Port Container Terminal (JNPCT) has 2 berths with total length of 680m and 15m draft which will be handed over under this PPP contract along with backup area of 54.74 hectares for 30 years.

NITI Aayog Releases Report on Digital Banks

In News
- NITI Aayog's report makes a case and offers a template and roadmap for a licensing and regulatory regime for digital banks.
- It focuses on avoiding any regulatory or policy arbitrage and offers a level playing field to incumbents as well as competitors.

Major Recommendations
- Issue of a restricted digital bank licence (to a given applicant) (the license would be restricted in terms of volume/value of customers serviced and the like).
- Enlistment (of the licensee) in a regulatory sandbox framework enacted by the Reserve Bank of India.

- Issue of a 'full-scale' digital bank licence (contingent on satisfactory performance of the licensee in the regulatory sandbox, including salient, prudential and technological risk management).
- The report also maps prevalent business models in this domain and highlights the challenges presented by the 'partnership model' of neo-banking—which has emerged in India due to a regulatory vacuum and in the absence of a digital bank licence.

Methodology for Licensing

- The methodology for the licensing and regulatory template offered by the report is based on an equally weighted '**digital bank regulatory index**'.
- This comprises four factors—(i) entry barriers; (ii) competition; (iii) business restrictions; and (iv) technological neutrality.
- The elements of these four factors are then mapped against the five benchmark jurisdictions of Singapore, Hong Kong, United Kingdom, Malaysia, Australia and South Korea.

Why Licensing?

- In recent years, India has made rapid strides in furthering financial inclusion, catalysed by the Pradhan Mantri Jan Dhan Yojana and India Stack.
- However, credit penetration remains a policy challenge, especially for the nation's 63-million-odd MSMEs that contribute 30% to GDP, 45% to manufacturing output, and 40% to exports, while creating employment for a significant section of the population.
- A 'whole-of-India approach' towards financial inclusion has also resulted in Direct Benefit Transfer through apps such as PM-KISAN and extending microcredit facilities to street vendors through PM-SVANIDHI.
- The current credit gap and the business and policy constraints reveal a need for leveraging technology effectively to cater to these needs and bring the under-served further within the formal financial fold.

'SVANidhi se Samriddhi'

In News

Ministry of Housing and Urban Affairs (MoHUA) has launched **PM Street Vendor's AtmaNirbhar Nidhi** (PM SVANidhi) Scheme on June 01, 2020 to facilitate collateral free working capital loan upto ₹10,000 of 1 year tenure to street vendors to restart their businesses, which were adversely impacted during the Covid-19 pandemic.

Svanidhi Se Samriddhi

- The scheme was designed to build safety net for the beneficiaries' families by linking them to existing 8 socio-economic welfare schemes of the Government of India was added to the Scheme.
- It was launched in 125 Urban Local Bodies (ULBs) in the first phase on 4th January, 2021 and extended for 126 ULBs on 12th April, 2022.
- The Scheme also facilitates on-boarding of beneficiary Street Food Vendors to e-commerce platforms to serve their customers online.
- 33.37 lakh loans amounting to ₹3,621 crores have been disbursed across the country till July 12, 2022.
- 9,198 Street Vendors have been on-boarded on the e-commerce platforms till July 12, 2022.

Pradhan Mantri JI-VAN Yojana

In News

In March, 2019, Government had notified the "Pradhan Mantri JI-VAN (Jaiv Indhan- Vatavaran Anukool fasal awashesh Nivaran) Yojana" for providing financial support to integrated bio-ethanol projects for setting up Second Generation (2G) ethanol projects in the country using lignocellulosic biomass and other renewable feedstock.

Pradhan Mantri JI-VAN Yojana

- Under the PM JI-VAN Yojana, the maximum financial assistance of Rs.150 crore per project for commercial projects and Rs.15 crore per project for demonstration projects has been prescribed for improving commercial viability as well as promoting R&D for development and adoption of technologies in the field of production of 2G ethanol.
- Financial assistance of Rs. 150 crore each to the four commercial Second Generation (2G) bio-ethanol projects at Bathinda in Punjab, Panipat in Haryana, Bargarh in Odisha and Numaligarh in Assam and Rs. 15 crore to one demonstration project at Panipat in Haryana has been approved under the Scheme.
- The total financial outlay for the scheme is Rs. 1969.50 crore for the period 2018-19 to 2023-24.
- Apart from financial support through PM JI-VAN Yojana, other steps taken to promote 2G Ethanol Plants include imposition of additional excise duty on non-blended fuels; encouraging studies on various aspects including; identifying areas having the potential of surplus Biofuels feedstocks; policy interventions to mainstream biofuels; separate price for 2G ethanol, etc.

E-AMRIT

In News

NITI Aayog launched two significant initiatives — **E-AMRIT** (Accelerated e-Mobility Revolution for India's Transportation) mobile application to raise awareness on electric mobility and the Report on Advanced Chemistry Cell Battery Reuse and Recycling Market in India.

UK's Glasgow Breakthrough

- India is among 42 leaders to back and sign up to the UK's Glasgow Breakthroughs, launched at the COP26 climate summit.
- India is also a co-convener of the Glasgow Breakthrough on Road Transport, together with the UK and the US.
- The **Breakthrough on Road Transport** aims to make ZEVs – including 2&3-wheelers, cars, vans and Heavy-Duty Vehicles – the new normal by making them affordable, accessible and sustainable in all regions by 2030.
- To bolster this low carbon infrastructure, NITI Aayog has been collaborating with the UK Government in the areas of e-vehicles, charging infrastructure and battery storage.
- India is the fifth largest and fastest growing vehicle market in the world, providing massive potential for electric vehicle uptake.
- The shift to Zero Emission Vehicles (ZEVs) is well underway and accelerating, creating 100,000s of new e-mobility jobs, driving down technology costs, ensuring the air we breathe is cleaner and reducing our reliance on imported fuels.

E-Amrit

- The e-AMRIT app offers users key information like engagement tools that enable them to assess benefits of electric vehicles, determine savings and get all the information on developments in the Indian electric vehicle market and industry at their fingertips.

- The mobile app, which will be available on Google Playstore in android version today, is a follow-up to the e-AMRIT (www.e-amrit.niti.gov.in).

Raising and Accelerating MSME Performance (RAMP)

In News
Government has launched a World Bank supported Central Sector Scheme called Raising and Accelerating MSME Performance (RAMP).

RAMP Scheme
- The scheme aims at strengthening institutions and governance at the Centre and State, improving Centre-State linkages and partnerships and improving access of MSMEs to market and credit, technology upgradation and addressing issues of delayed payments and greening of MSMEs.
- **RAMP programme** will be implemented over a period of five years.
- The total outlay for the scheme is ₹6,062.45 crore or USD 808 Million, out of which ₹3750 crore or USD 500 Million would be a loan from the World Bank and the remaining ₹2312.45 crore or USD 308 Million would be funded by the Government of India (GoI).
- Interventions under RAMP programme, by way of increasing access of MSMEs to market, technology and credit, increasing outreach to more MSMEs, inclusion of service sector, gender and greening initiatives etc., are aimed at increasing the performance of the MSME sector, thus resulting in more employment opportunities.

11th Agriculture Census in the country

In News
The Eleventh Agricultural Census (2021-22) was launched in the country by the Union Minister for Agriculture and Farmers Welfare, Shri Narendra Singh Tomar.

About Census
- Agriculture Census is conducted every 5 years, which is being undertaken now after delay due to corona pandemic.
- The field work of agricultural census will start in August 2022.
- Agricultural Census is the main source of information on a variety of agricultural parameters at a relatively minute level, such as the number and area of operational holdings, their size, class-wise distribution, land use, tenancy and cropping pattern, etc.
- This is the first time that data collection for agricultural census will be conducted on smart phones and tablets, so that data is available in time.
- Most of the States have digitized their land records and surveys, which will further accelerate the collection of agricultural census data.
- The use of digitized land records and the use of mobile apps for data collection will enable the creation of a database of operational holdings in the country.

India's first International Bullion Exchange

In News
- Prime Minister Shri Narendra Modi laid the foundation stone of the headquarters building of the International Financial Services Centres Authority (IFSCA) in GIFT City, Gandhinagar.

- He also launched the India International Bullion Exchange (IIBX), India's first International Bullion Exchange in GIFT-IFSC.
- He also launched the NSE IFSC-SGX Connect.

About GIFT City, IFSCA

- GIFT city (Gujarat International Finance Tec-City) was envisaged as an integrated hub for financial and technology services not just for India but for the world.
- IFSCA is the unified regulator for the development and regulation of financial products, financial services and financial institutions in International Financial Services Centres (IFSCs) in India.
- The building has been conceptualised as an iconic structure, reflective of the growing prominence and stature of GIFT-IFSC as a leading International Financial Centre.

IIBX

- IIBX will facilitate efficient price discovery with the assurance of responsible sourcing and quality, apart from giving impetus to the financialisation of gold in India.
- It will empower India to gain its rightful place in the global bullion market and serve the global value chain with integrity and quality.
- IIBX also re-enforces the commitment of the Government of India towards enabling India to be able to influence global bullion prices as a principal consumer.

NSE IFSC-SGX

- NSE IFSC-SGX Connect is a framework between NSE's subsidiary in the GIFT International Financial Services Centre (IFSC) and Singapore Exchange Limited (SGX).
- Under Connect, all orders on NIFTY derivatives placed by members of Singapore Exchange will be routed to and matched on the NSE-IFSC order matching and trading platform.
- Broker-Dealers from India and across international jurisdictions are expected to participate in large numbers for trading derivatives through Connect.

Agriculture Infrastructure Fund Awards

In News
Shri Narendra Singh Tomar to give away Agriculture Infrastructure Fund Awards.

AIF Scheme

- The Agriculture Infrastructure Fund (AIF) was announced in May 2020 by the Government of India for farm-gate infrastructure for farmers.
- Agriculture Infrastructure Fund is a central sector scheme that will enable a financing facility of Rs.1 lakh crore for funding agriculture infrastructure projects at farm-gate and aggregation points such as farmers producers organisations, primary agricultural cooperatives, startups and entrepreneurs in the agriculture sector.
- The scheme provides medium to long term debt financing facility for investment in viable projects for post-harvest management infrastructure and community farming assets through interest subvention and financial support/credit guarantee.
- It is meant for building processing and storage facilities, and for helping farmers, FPOs, etc. build post-harvest agriculture infrastructure and community farming assets.
- These facilities should help farmers get a higher price for their produce as they will be able to reduce wastage, store, process and give value addition to their products.

- The scheme was initially set to run for ten years from 2020 to 2029. But, it has been extended by three years till 2032-33 in July 2021.
- Under this, banks and financial institutions provide loans with an interest subvention of 3% per annum.
- The scheme also entails providing credit guarantee coverage under Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) for loans up to Rs. 2 Crore.
- NABARD will steer this initiative in association with the Ministry of Agriculture and Farmers' Welfare. Read more on NABARD.

Science & Tech

"Grand Hackathon" on Agriculture domain

In News
A three-day "**Grand Hackathon**" organized by the Open Network for Digital Commerce (ONDC) in collaboration with NABARD, has been launched virtually by Union Minister Piyush Goyal.

About Hackathon
- The **"Grand Hackathon",** is subdivided into two categories; Agri Grant Challenge and Agri Innovation Hackathon that will showcase the innovations to aid the adoption of eCommerce in the agricultural sector.
- The focus of this event is on the agricultural domain, solving for agri domain needs that will help tap its unexplored potential and benefit the farming community and Agri ecosystem and help state governments realise their goal of promoting their local agricultural products at a national level.
- It plans to bring various agricultural stakeholders, including individuals, organisations and promising start-ups, onto one accelerator activity.

ONDC
- ONDC is a Government of India initiative that aims to build an open network for buyers and sellers to democratise the current e-commerce ecosystem in the country.
- It is also very crucial in democratizing the agri-value chain and ensuring the digital transformation of agri sector, as was stated by Shri Goyal. With active support from NABARD, ONDC will be able to on-board the entire farm value chain, bring them on to e-commerce, particularly the FPOs, mandis, processors, exporters, MSMEs and the small retailers.

Greenko School of Sustainable Science & Technology at IIT Hyderabad

In News
Union Minister for Education and Skill Development Shri Dharmendra Pradhan inaugurated the state-of-the-art facilities, laid the foundation stone for BVRSCIENT & witnessed a landmark MoU for the first-of-its-kind Greenko School of Sustainable Science & Technology at IIT Hyderabad.

About GSSST
- Greenko, India's leading energy transition and industrial decarbonization solutions company, and IIT Hyderabad signed an MoU to launch India's first dedicated school for sustainable science and technology.
- The **Greenko School of Sustainable Science and Technology (GSSST)** aims to plug the rising research, education, and skills gaps caused by the imperatives of sustainable development. The school will be advancing knowledge in these key thrust areas:

- Climate Change Mitigation
- AI & Space Technology
- Energy Transition & Industrial Transformation
- Circular & Regenerative Economy
- ZeroC processes, fuels, materials, and products
- Industrial Ecology and Net Zero Clusters

Inauguration of Technology Innovation Park (TIP):
- The TIP building, with a total built-up area of 14313 sqm, consisting of 11 blocks with a G+5 structure, is ready to support the incubation activity at IITH.
- The motto of IIT Hyderabad is Inventing and Innovating in Technology for Humanity (IITH). The Incubation ecosystem of IITH aims at nurturing ideas and innovations into viable technological and business ventures.

Digital India week 2022

In News
Prime minister Naredra modi launched Digital India week 2022 in GandhiNagar, Gujarat. The first edition of The Digital India Programme was launched on July 1, 2015 by the Prime Minister.

Digital India Week
- **Theme**- 'Catalyzing New India's Techade'.
- "India's story of digital transformation is a story of Digital Innovation, Implementation and Inclusion.
- India has pioneered innovative digital projects, implemented transformational projects at population scale, and the benefits of various services and initiatives have percolated to the common man living in the rural hinterland, ensuring digital inclusion.
- The "**India Stack Knowledge Exchange**", a part of Digital India Week will also include a three days' long orientation programme – "India Stack Knowledge Exchange: Showcasing India Stack and India's Digital Products & Services".
- Digital Mela' where everyone can walkthrough and Interact with Beneficiaries & Startups.

Digital India Bhashini
- Digital India Bhashini' will enable easy access to the internet and digital services in Indian languages, including voice-based access, and help the creation of content in Indian languages.
- The key intervention in building AI-based language technology solutions for Indian languages will be the creation of multilingual datasets.
- Digital India Bhashini will enable massive citizen engagement to build these datasets through a crowdsourcing initiative called **BhashaDaan**.

Digital India GENESIS
- **Digital India GENESIS**' (Gen-next Support for Innovative Startups) - a National Deep-tech Startup Platform, to discover, support, grow and make successful startups in Tier-II and Tier-III cities of India.
- A total outlay of ₹750 Crore has been envisaged for the scheme.

My Scheme
- 'MyScheme' - a service discovery platform facilitating access to Government Schemes.
- It aims to offer a one-stop search and discovery portal where users can find schemes that they are eligible for.
- He will also dedicate to the citizens '**Meri Pehchaan**'- National Single Sign On for One Citizen Login.

- National Single Sign-On (NSSO) is a user authentication service in which a single set of credentials provide access to multiple online applications or services.

C2S Programme

- The C2S Programme aims to train specialized manpower in the area of design of semiconductor chips at Bachelors, Masters and Research levels, and act as a catalyst for the growth of Startups involved in semiconductor design in the country.
- It offers to mentor at the organisational level and makes available State-of-the-art facilities for design to the institutions.
- This is part of the India Semiconductor Mission to build a strong design ecosystem in semiconductors.

Significance

- Due to this technology, 2 lakh 23 thousand crore rupees of the country have been saved from falling into the wrong hands.
- Digital India has brought the government to the doorsteps and phones of the citizens.
- More than 1.25 lakh Common Service Centres and Grameen Stores are now taking e-commerce to rural India.

TiHAN

In News

Union Minister of State (Independent Charge) Science & Technology; Dr Jitendra Singh inaugurated first-of-its-kind, state-of-the-art "Autonomous Navigation" facility to develop unmanned ground and aerial vehicles in the IIT Hyderabad campus.

About TiHAN

- The "Technology Innovation Hub on Autonomous Navigation" is a multidisciplinary initiative, which will make India a global player in the futuristic and next generation "Smart Mobility" technology".
- The vision of **TiHAN-IITH**, is to become a global player for next generation smart mobility technologies and the Ministry of Science & Technology has come forward to support this initiative, which will be a trendsetter for others as well.
- TiHAN Testbed will provide a unique platform for high quality research between academia, industry and R&D labs both at the national and international level, thus making India a global leader in autonomous navigation technologies.
- TiHAN-IITH testbed on Autonomous Navigations (Aerial & Terrestrial) will allow us testing the next generation autonomous navigation technologies accurately and allow faster technology development and global market penetration.
- TiHAN is developing and deploying a real-time CPS system utilising autonomous UAVs and ground/surface vehicles for many application sectors of the national importance of this decade.
- TiHAN is recognized as a Scientific and Industrial Research Organization (SIRO) by the Department of Scientific and Industrial Research.

New material discovered can convert infrared light to renewable energy

In News

Scientists have discovered a novel material that can emit, detect, and modulate infrared light with high efficiency making it useful for solar and thermal energy harvesting and for optical communication devices.

Electromagnetic waves

- Electromagnetic waves are a renewable energy source used for electricity generation, telecommunication, defence and security technologies, sensors, and healthcare services. Scientists use high-tech methods to manipulate such waves precisely -- in dimensions that are thousands of times smaller than the human hair, using specialized materials.
- However, not all the wavelengths of light (electromagnetic waves) are easy to utilize, especially infrared light, since it is difficult to detect and modulate.

About Discovery

- Researchers from Bengaluru's Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), an autonomous institute of Department of Science and Technology (DST) have discovered a novel material called single-crystalline scandium nitride (ScN) that can emit, detect, and modulate infrared light with high efficiencies.
- They have carefully controlled material properties to excite polaritons (a quasi-particle) and achieve strong light-matter interactions in single-crystalline scandium nitride (ScN) using infrared light.
- These exotic polaritons in the ScN can be utilized for solar and thermal energy harvesting.
- Also, belonging to the same family of materials as gallium nitride (GaN), scandium nitride is compatible with modern complementary-metal-oxide-semiconductor (CMOS) or Si-chip technology and, therefore, could be easily integrated for on-chip optical communication devices.

E-Cycle

In News

Scientists have used nano-materials to develop Na-ion-based batteries and supercapacitors, which can be rapidly charged and have integrated them in e-cycles.

Features

- The low-cost Na-ion-based technologies would be cheap and are expected to reduce the cost of the e-cycles significantly.
- Sodium-ion (Na-ion) batteries have triggered academic and commercial interest as a possible complementary technology to lithium-ion batteries because of the high natural abundance of sodium and the consequent low costs of Na-ion batteries.
- These sodium materials are cheaper than Li-based materials, high performing, and can be scaled up to industrial-level production.
- The Na-ion cell can also be totally discharged to zero volt, similar to a capacitor, making it a safer option in comparison to many other storage technologies.
- As disposal strategies of Na-ion-based batteries would be simpler, it can also help in addressing the climate mitigation issue.

India Supercomputing capabilities

In News

As per the global ranking service of super-computers (Top 500), India has only 3 top-ranked supercomputers among 500 and none in the top 100.

Major Highlights

- (Param Siddhi (5.27 PFlops), Param Ganga (1.66 PFlops) and Pratyush supercomputer (Indian Institute of Tropical Meteorology's)) India had 2 in the top 100 in 2020
- World: China and the US account for nearly two-thirds of the top 500 supercomputers in the world.
- Frontier Supercomputer: The world's fastest supercomputer, Frontier, located at the Oak Ridge National Laboratory, offers a peak performance of 1,685 PFlops.

Advantages

- High-speed computation: E.g., in May 2020, IBM's Summit supercomputer, helped researchers find drug compounds that could stop the covid-19 virus from infecting host cells in just 2-3 days.
- Other areas: chemistry formulations, protein folding, biomedicine, space (for satellite placements) and climate research.

Giga Mesh

In News

The network solution called GigaMesh wirelessly provides fibre-like backhaul capacity and paves the road for 5G.

Giga Mesh

- **GigaMesh**, developed by Astrome, supported by ARTPARK, is world's first multi-beam E-band Radio that is able to communicate from one tower to multiple towers simultaneously while delivering multi GBPS throughput to each of these towers.
- A single GigaMesh device can provide up to forty links with 2+ Gbps capacity, communicating up to a range of ten kilometres.
- This flexibility in range makes it suitable for both decongesting the dense urban networks and extending rural coverage. With India's huge population in the rural segment, Astrome can help improve domestic internet connectivity.

Benefits

- A total of 15 villages in different parts of the country may soon be seamlessly connected through a next-generation networking solution that can address congestion issues in 4G infrastructure and provide high-tech and affordable internet connectivity.
- The solution has been developed by Astrome, a deep-tech startup expediting the implementation of 5G and rural telecommunications infrastructure through its patented millimetre wave E-band radios and satellite communication solutions.
- The startup is supported by **AI & Robotics Technology Park (ARTPARK)**, the Technology Innovation Hub (TIH) at the Indian Institute of Science (IISc), which aims to chart the future for millimetre wave wireless communication on Earth and in space.

ARTPARK

- ARTPARK is a not-for-profit foundation promoted by the Indian Institute of Science (IISc), Bengaluru, with support from the AI Foundry in a public-private collaborative model to promote technology innovations in artificial intelligence (AI) & Robotics with seed funding from the Department of Science & Technology (DST), Govt. of India, under the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) and from the Government of Karnataka.
- It is designed to bring about a collaborative consortium of partners from industry, academia, and government bodies.

Aditya-L1

In News
A workshop conducted by the Aditya-L1 Science Support Cell (AL1SSC) for students of different institutions and they were exposed to the basic processes happening on the Sun, Aditya-L1 mission, and observational data analysis.

Aditya - L1
- The Aditya-L1 mission is India's first dedicated spacecraft mission to study the Sun.
- It will enable a comprehensive understanding of the dynamical processes of the Sun and address some of the outstanding problems in solar physics and heliophysics.
- AL1SSC has been set up to act as a community service centre for the guest observers in preparing science observing proposals and analyzing science data.
- This support cell provides tools and documentations required to understand, download and analyse the data.

First ever 'Artificial Intelligence in Defence' exhibition & symposium

In News
Raksha Mantri Shri Rajnath Singh will inaugurate the first ever 'Artificial Intelligence in Defence' (AIDef) symposium and exhibition, organised by Department of Defence Production, Ministry of Defence, in New Delhi.

AIDef
- The event will feature an exhibition to showcase the cutting edge AI-enabled solutions developed by the Services, research organisations, Industry and start-ups & innovators and launch of AI products for the market.
- The event will also witness panel discussions on 'Deploying AI in Defence', 'GenNext AI solutions' and 'AI in Defence – Industry Perspective', with active participation from the Services, academia, students, research organisations and Industry.
- A '**GenNext AI**' Solutions Competition has been organised to get bright innovative ideas from students on futuristic AI solutions.
- AI task force on Defence was established in 2018 to provide a road map on promoting AI in defence.

India Stack Knowledge Exchange 2022

In News
As part of the ongoing Digital India Week 2022 celebrations, the 3-days long virtual event on India Stack Knowledge Exchange kick started recently.

About ISKE 2022
- India Stack, which is a unified software platform to bring India's 1.4 billion population into the Digital Age.
- This programme witnessed participation from across the world.
- The **objective** is to give an orientation to the basic building blocks of India Stack, which is driving Digital Transformation in India.
- Indiastack.global was launched by Hon'ble Prime Minister recently and is a single repository of all major projects on India Stack.
- The first session was on India Stack's prime `product, the Aadhaar.
- The second session on 'UPI: Leading Digital Payment Ecosystem in India'.

PARIMAN

In News
- National Capital Region (NCR) is presently spread over 55,083 Sq. Kms and has four participating states (24 Districts and entire NCT of Delhi) as its constituent area.
- For the purpose of effective utilization of Remote Sensing and GIS technology, a web geo-portal has been developed through National Informatics Centre (NIC), initially for use by NCR Participating states and the Office of NCRPB.

Features
- This Geo-Portal will help to improve decentralized planning and management in NCR region.
- The Portal consists of around 179 Layers presented as Line, Point & Polygon feature covering details of various sectors like Land Use, Transport, Industries, Water, Power, Health, Shelter, Heritage & Tourism, Disaster Management, etc.
- Geo-Portal for NCR known as '**PARIMAN**' was launched on 2021 in the 40th meeting of the Board by Shri Hardeep Singh Puri, Chairman, NCRPB and Union Minister for Housing & Urban Affairs.
- The Geo-Portal can be accessed though the NCRPB website https://ncrpb.nic.in/ and also through the weblink https://ncrpbgis.nic.in/

West Bengal gets Internet Exchange Points

In News
- Minister of State, Electronics and Information Technology, inaugurated two new **Internet Exchange points** (IXP) of NIXI at Durgapur and Bardhman recently.
- The launch of these Internet exchanges is under Prime Minister Narendra Modi's Digital India vision to connect every Indian with open, safe & trusted and accountable internet and Ministry of Electronics and Information Technology's (MeitY) vision 1000 days.

Significance
Internet exchanges in states are expected to contribute to the enhancement and improvement of Internet and Broadband services in West Bengal and neighbouring regions, ISPs will benefit with improved internet services offered by them to its end users, bringing about a change in the lives of the people.

About NIXI
- NIXI is a not-for-profit organization under section 8 of the Companies Act 2013, and was registered on 19th June, 2003.
- NIXI was set up for peering of ISPs among themselves for the purpose of routing the domestic traffic within the country, instead of taking it all the way to US/Abroad, thereby resulting in better quality of service (reduced latency) and reduced bandwidth charges for ISPs by saving on International Bandwidth.
- NIXI is managed and operated on a Neutral basis, in line with the best practices for such initiatives globally.

Scientists develop novel mechanism to inactivate SARS-CoV-2

In News
Researchers have reported the design of a new class of synthetic peptides that can not only block the entry of SARS-CoV-2 virus entry into cells but also clump the virions (virus particles) together, reducing their ability to infect.

About the Discovery

- It is known that protein-protein interaction is often like that of a lock and a key.
- This interaction can be hampered by synthetic peptide that mimics, competes with, and prevents the 'key' from binding to the 'lock', or vice versa.
- Scientists at the Indian **Institute of Science (IISc)**, in collaboration with researchers from the CSIR-Institute of Microbial Technology, have exploited this approach to design peptides that can bind to and block the spike protein on the surface of SARS-CoV-2 virus.
- This binding was further characterised extensively by cryo-electron microscopy (cryo-EM) and other biophysical methods.
- The research was supported under the COVID-19 IRPHA call of SERB Science and Engineering Research Board (SERB), a statutory body of Department of Science and Technology (DST).

First Hackathon under the 'ABDM Hackathon Series'

In News

The National Health Authority (NHA) is organising its first hackathon under the Ayushman Bharat Digital Mission Hackathon Series from at the Smart City Operations Centre, Pune, Maharashtra in hybrid format.

About Hackathon

- The hackathon is being organized under the Ayushman Bharat Digital Mission (ABDM) in association with Pune Municipal Corporation (PMC) and Pune Smart City Development Corporation Limited (PSCDCL).
- Various teams comprising of innovators, developers and data experts have joined physically and virtually to collaborate and build innovative solutions.
- It is a unique attempt to build interoperability between healthcare providers and facilitate exchange of healthcare data - which can ultimately make quality healthcare accessible & affordable to all.
- The hackathon is also focussed at mobilising the health start-up ecosystem in India by bringing together individuals and organisations to develop innovative solutions.

KVIC launches Knowledge Portal for Khadi

In News

The Knowledge Portal for Khadi is a platform developed by the Center of Excellence for Khadi to provide design directions to the Khadi institutions.

Features of the portal

- The Center of Excellence for Khadi has been set up by KVIC, Ministry of MSME at NIFT, to support Khadi Institutions.
- Knowledge Port for Khadi attempts to disseminate design knowledge to a broader section of Khadi Institutions.
- The portal intends to create design intervention by simplifying the trends specially suitable for Khadi.
- Four stories/design directions have been conceptualised and presented in Volume I.
- Each story has a key theme, colour palette, and directions for woven designs, prints, textures, and surfaces.
- Every story has been separated into two segments - Home and Apparel.
- Besides the themes, the portal also provides size charts, silhouette boards, buttons and closures, seams and finishes for both home and apparel.
- The portal will be hosted on the website of the Center of Excellence for Khadi and can be accessed on www.coek.in

Pilot Green Hydrogen Technologies

In News

NHPC signed two MoUs for the development of "**Pilot Green Hydrogen Technologies**" in line with the country's resolve to reduce the carbon footprint in the Power Sector in Leh and Kargil districts of Union Territory of Ladakh.

Details

- The hydrogen generated in Kargil will be used in fuel cells for mobility which will be capable to run two buses for up to 8 hrs in the local area of Kargil.
- NHPC shall upscale hydrogen production on a commercial scale to supply the hydrogen need of the Ladakh region in different sectors like mobility, transportation, heating, and Micro-grid & subsequent MoU shall be signed separately.
- These two Pilot projects will create a roadmap for future development of Green Hydrogen & subsequent reduction of carbon emission in the transportation/heating sector and will also attract long-term investment in the Hydrogen economy creating different revenue streams & job opportunities for the youth of UT of Ladakh.

New memory device with excellent switching characteristics

In News

Scientists have developed a memory device with excellent switching characteristics and low-power requirements for data storage applications.

About the discovery

- Resistive memory devices with insulating film sandwiched between electrodes can address the needs of high-performance, and high-density memories with low power requirements for data storage.
- They are devices with resistive switching characteristics which refers to the physical phenomena in which a dielectric (electrical insulator that can be polarised by an applied electric current) suddenly changes its (two terminal) resistance under the action of a strong current.
- An autonomous institution of Department of Science and Technology, Govt. of India (DST), have developed a low-power memory device with excellent switching characteristics made from the chemical hafnium oxide, a replacement for silicon oxide, for data storage applications.
- They have used hafnium oxide (HfO_2), an insulator which can be polarised on application of electric current as an insulating layer.
- They prepared with by a method called sputtering deposition method.
- It is a physical vapour deposition technique in which energetic ions are used to knock off the atoms or molecules from the desired 'target' material and deposit them onto a substrate.

LabVIEW Platform through I-STEM for academic researchers

In News

For the first time in the country, academic users in India will have free access to the **Laboratory Virtual Instrument Engineering Workbench (**LabVIEW) software suite - a system-design platform and development environment for a visual programming language.

Features of LabVIEW
- The Indian Science Technology and Engineering facilities Map (I-STEM), the national web portal for sharing research equipment/facilities, and National Instruments Inc., headquartered in Austin, TX, USA, entered into a collaborative arrangement to enable this free access to the platform.
- LabVIEW uses a graphic interface that enables different elements to be joined together to provide the required flow and runs on Windows, OS X (Apple), and Linux Operating systems, making it suitable for most computing systems.
- The software suite is hosted on the cloud server established by the I-STEM to provide user-friendly access from anywhere in India.
- The arrangement is expected to assist many students and researchers in the country, especially those in the more remote and less-endowed institutions, thereby enhancing learning outcomes and promoting R&D efforts across India.

I-STEM
- I-STEM (www.istem.gov.in) is an initiative by the Scientists of the Indian Institute of Science Bangalore supported by the Office of the Principal Scientific Adviser to the Govt. of India under the PM-STIAC mission.
- The portal hosts the database of facilities across India so that a researcher desirous of using any of them can search for the same and make a booking online for using it.
- The portal also features a Digital Catalogue of indigenously developed technologies and products.
- I-STEM also hosts the platform for the various City Knowledge and Innovation Clusters, to enhance R&D collaboration and skill development across the country.

e-Panchayat Mission Mode Project (MMP)

In News
Under Digital India Programme, Ministry is implementing e-Panchayat Mission Mode Project (MMP) with the aim to transform the functioning of Panchayati Raj Institutions (PRIs) by making them more transparent, accountable, and effective.

e- Gram Swaraj
- A work-based comprehensive application for PRIs under the e-Panchayat MMP launched on 24th April 2020.
- This application encompasses all aspects of Panchayat functioning viz. planning, budgeting, accounting, monitoring, asset management etc, on a single digital platform including online payments.
- The Ministry constantly engages with the States through virtual and physical training and enablement for States to adopt the eGramSwaraj application.
- So far, 2.48 lakh GPs have prepared and uploaded their Gram Panchayat Development Plans (GPDPs) for 2022-23.

Bharat Net Project
- BharatNet project is being implemented by Department of Telecommunications in a phased manner to connect all the Gram Panchayats by broadband in the country.
- So far, 1,78,271 GPs have been made Service Ready under the BharatNet project in the country.
- The targeted date for the completion of the BharatNet project to provide broadband connectivity to all Gram Panchayats and equivalent in the country is August 2023.

Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA)

In News
The Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) was approved by Union Cabinet in February 2017 to usher in digital literacy in rural India with a target to cover 6 crore rural households (1 person per household) across the country.

PMDISHA
- The scheme is being implemented across the rural India including the state of Madhya Pradesh.
- Against the indicative target of 37.84 lakh, so far, 45.42 lakh candidates have been trained, out of which, 33.51 lakh candidates have been duly certified in Madhya Pradesh under the scheme.
- Government has carried out, three impact assessment studies for PMGDISHA scheme.
- The last impact assessment study of the scheme was carried out by Indian Institute of Public Administration (IIPA) in FY 2020-21.
- IIPA, after the comprehensive and methodological evaluation of scheme, concluded in the report that PMGDISHA as a digital literacy programme plays an indispensable part in not only bridging the digital gap in the country but also transforming it into a knowledge economy and society.

Indigenous Low Earth orbit Technology

In News
Union Minister of State (Independent Charge) Science & Technology; Dr Jitendra Singh said, ISRO is in the process of developing indigenous capabilities towards space tourism through the demonstration of human space flight capability to **Low Earth Orbit** (LEO).

About LEO
- A low Earth orbit (LEO) is, as the name suggests, an orbit that is relatively close to Earth's surface.
- It is normally at an altitude of less than 1000 km but could be as low as 160 km above Earth – which is low compared to other orbits, but still very far above Earth's surface.
- By comparison, most commercial aeroplanes do not fly at altitudes much greater than approximately 14 km, so even the lowest LEO is more than ten times higher than that.
- It is the orbit most commonly used for satellite imaging, as being near the surface allows it to take images of higher resolution.
- It is also the orbit used for the International Space Station (ISS), as it is easier for astronauts to travel to and from it at a shorter distance.
- Satellites in this orbit travel at a speed of around 7.8 km per second; at this speed, a satellite takes approximately 90 minutes to circle Earth, meaning the ISS travels around Earth about 16 times a day.

Science of Genetics

In News
200 years of the father of genetics, Gregor Mendel.

Genetics
- Genetics is the study of genes, genetic variation, and heredity in organisms.
- It was first experimentally established by **Gregor Mendel** (a monk) (1822 to 1884)

Contributions
- By experimenting with pea plant breeding, Mendel developed three principles of inheritance that described the transmission of genetic traits, before anyone knew genes existed.
- To this day, scientists use Mendel's principles to explain the most basic phenomena of inheritance.
- **Foundation of biology**: Mendel's theory, together with the evolutionary theory propounded by Charles Darwin, laid the foundations of biology.
- **Cure for many human diseases:** Assisted clinicians in human disease research
- For example, within just a couple of years of the rediscovery of Mendel's work, Archibald Garrod applied Mendel's principles to his study of alkaptonuria (discolouration of the skin)
- Science of genomics and gene editing has its root in the work of Mendel.

Bal Raksha Mobile App

In News
- Union Minister of Ayush Shri Sarbananda Sonowal inaugurated Vaccination Centre for children at the All India Institute of Ayurveda (AIIA).
- He also launched the Bal Raksha mobile app, which is aimed at creating awareness of paediatric preventive healthcare through Ayurveda intervention amongst parents.

Bal Raksha Mobile App
- It aims to raise awareness on paediatric preventive healthcare through Ayurveda intervention amongst parents.
- The app will also collect feedback from parents regarding the impact of the kit on their children's health and immunity.

AIIA
- The All India Institute of Ayurveda, an autonomous organisation under Ministry of Ayush, aims at bringing synergy between the traditional wisdom of Ayurveda and modern tools and technology.
- The Institute has 12 specialty departments, 30 OPD units with state-of-the-art inter-disciplinary research laboratories and an international collaborative centre for global promotion and research in Ayurveda.
- Ayurveda is the oldest system of medicine and health science dating back to more than 3,000 years.
- During Covid times, AIIA played a major role by treating patients at the Covid Healthcare Centre in sync with its mission of 'care with compassion'.

VISWAS project

In News
The Union Home and Cooperation Minister, Shri Amit Shah, inaugurated the State Level Command and Control Center of Gujarat Police 'Trinetra' and other modern technical services under the VISWAS project in Gandhinagar.

About Project
- This project will protect Gujarat by converting Gujarat government's plan to make the Suraksha Chakra into a Sudarshan Chakra.
- Gujarat was at the first State where e-Cop was started.
- Computerization of all police stations in the State, recruitment of constables, training systems and administration of Trinetra has been done with E-Cop software.
- Along with this, the inclusion of eFIR aForensic Science Laboratory was also included in the e-cop.

GigaMesh Solution for delivery of 4G/5G Telecom and Internet services

In News
Technology Development Board, a statutory body of Department of Science & Technology, Govt. of India supports M/s Astrome Technologies Private Limited, Bengaluru for Productization and Commercialization of '**GigaMesh Solution for delivery of 4G/5G Telecom and Internet services for Defence and Rural Sectors'**.

About the Technology
- The idea behind development of GigaMesh is that, fibre-like capacity is needed at every telecom site but deploying the same at each site is not feasible, due to cost and access related constraints. As 5G deployment happens, the number of cell sites will increase and each cell site will require multi-Gbps throughputs.
- Therefore, telecom deployment in suburban and rural areas will require wireless products that can deliver both capacity and range.
- To cater this, Astrome has come up with **GigaMesh** i.e. 'First E-band radio that features Multiple-Point-to-Point (Multi-P2P) communication offering lower CapEx cost & OpEx cost.
- The device can provide up to 40 links with 2+ Gbps capacity each, communicating up to a range of 10 kilometers.
- This flexibility in range makes it suitable for both decongesting the dense urban networks as well as extending rural coverage, the device is also capable of making the existing infrastructure 5G ready.

PM Narendra Modi unveils India's first Passenger Drone "Varuna"

In News
Prime Minister Narendra Modi has unveiled Varuna, India's first passenger. Prime Minister Narendra Modi asserted that the current government has ensured last-mile delivery of services with the help of technology, including drones.

Features
- Varuna, India's first drone that can carry a human payload, has a range of 25 km. The drone can carry a 130 kg payload and has 25-33 minutes of flight time.
- The **human carrying pilot-less drone** has been designed and developed by Mumbai-based startup Sagar Defence Engineering.
- This drone has been made specifically for the use by the Indian Navy. It can land and take off from moving warships as well.
- Varuna has the capacity to carry one person inside.

PSLV-C53

In News
PSLV-C53 launch on 30th June, 2022 was the dedicated international customer mission wherein 3 Singaporean satellites were launched.

PSLV-C53 Mission
- It is the second dedicated commercial mission of NewSpace India Limited (NSIL).
- It is designed to orbit DS-EO satellite along with two other co-passenger satellites from Singapore.
- This is the 55th mission of PSLV and 15th mission using the PSLV-Core Alone variant.

- The mission proposes to demonstrate the utilisation of the spent upper stage of the launch vehicle as a stabilised platform for scientific payloads subsequent to the separation of the satellites.
- It carries three satellites to deploy them in Low Earth Orbit (LEO).
- DS-EO, a 365 kg and NeuSAR, a 155 kg satellite both belong to Singapore.
- Third satellite is a 2.8 kg Scoob-1 of Nanyang Technological University (NTU), Singapore

Features

- A four stage, 44.4 m tall PSLV-C53 has a lift-off mass of 228.433 t.
- It would inject a **DS-EO satellite** into an orbit with semi-major axis of 6948.137 + 20 km, at an altitude of 570 km measured from the equator, with a low inclination of 10 deg. + 0.20.

e-GramSwaraj Portal

In News

The Ministry launched eGramSwaraj, a work-based comprehensive application for Panchayati Raj Institutions (PRIs) under the e-Panchayat MMP on 24th April 2020.

About Portal

- This application encompasses all aspects of Panchayat functioning viz. planning, budgeting, accounting, monitoring, asset management etc. on a single digital platform including online payments.
- So far, 2.48 lakh GPs have prepared and uploaded their Gram Panchayat Development Plans (GPDPs) for 2022-23.
- In the State of Meghalaya, the Traditional Local Bodies have not uploaded their Gram Panchayat Development Plans on the **eGramSwaraj portal.**
- The Ministry constantly engages with the States through virtual and physical training and enablement for States to adopt the eGramSwaraj application.
- Review meetings, workshops, hand-holding sessions, video conferences and visits by senior officials to States is undertaken regularly to review progress.

e-Panchayat Mission Mode Project (MMP)

- Aim- To transform the functioning of Panchayati Raj Institutions (PRIs) by making them more transparent, accountable, and effective.
- Building on the achievements in the past, Ministry has also integrated e-Gram SWARAJ with Public Financial Management System for Gram Panchayats to make real time payments to vendors/service providers.
- Further, Panchayats have adopted the mechanism to make payments to vendors through Public Financial Management System.
- For ensuring timely audit of Panchayat accounts, MoPR has devised an online application– Audit Online (https://auditonline.gov.in).
- This application not only facilitates auditing of Panchayat accounts but also provides for maintaining audit records.

Health & Medicine

Strengthening of Pharmaceutical Industry (SPI)

In News
Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers has released the guidelines for the scheme **"Strengthening of Pharmaceutical Industry (SPI)",** with a total financial outlay of Rs.500 Cr for the period from FY 21-22 to FY 25-26.

Features of the Scheme
- The scheme will address the rising demand in terms of support required to existing Pharma clusters and MSMEs across the country to improve their productivity, quality and sustainability.
- **The objectives of the scheme** "Strengthening of Pharmaceutical Industry (SPI) are to strengthen the existing infrastructure facilities in order to make India a global leader in the Pharma Sector. Under the Scheme, financial assistance to pharma clusters will be provided for creation of Common Facilities.
- This will not only improve the quality but also ensure the sustainable growth of clusters.
- Further, in order to upgrade the production facilities of SMEs and MSMEs so as to meet national and international regulatory standards (WHO-GMP or Schedule-M), interest subvention or capital subsidy on their capital loans will be provided, which will further facilitate the growth in volumes as well as in quality.
- **The Scheme has 3 components / sub-schemes**: Assistance to Pharmaceutical Industry for Common Facilities (APICF), to strengthen the existing pharmaceutical clusters' capacity for their sustained growth by creating common facilities;
- Pharmaceutical Technology Upgradation Assistance Scheme (PTUAS) to facilitate Micro, Small and Medium Pharma Enterprises (MSMEs) of proven track record to meet national and
- International regulatory standards and Pharmaceutical & Medical Devices Promotion and Development Scheme (PMPDS) to facilitate growth and development of Pharmaceutical and Medical Devices Sectors through study/survey reports, awareness programs, creation of database, and promotion of industry.

Other schemes related to pharma:
- Promotion of Bulk Drug Parks Scheme: To develop 3 mega Bulk Drug parks in India
- **Production Linked Incentive (PLI) Scheme**: To promote domestic manufacturing of critical Key Starting Materials (KSM) and Active Pharmaceutical Ingredients (APIs) in the country.

National Mental Health Programme

In News
For providing affordable and accessible mental healthcare facilities to the population, including the poor and underprivileged, the Government is implementing National Mental Health Programme (NMHP) in the country.

About NMHP
- The **District Mental Health Programme** (DMHP) component of the NMHP has been sanctioned for implementation in 704 districts for which support is provided to States/UTs through the National Health Mission.
- Facilities made available under DMHP at the Community Health Centre (CHC) and Primary Health Centre (PHC) levels, include outpatient services, assessment, counselling/ psycho-social interventions, continuing care and support to persons with severe mental disorders, drugs, outreach services, ambulance services etc.
- To generate awareness among masses about mental illnesses, Information, Education and Communication (IEC) activities are an integral part of the NMHP.

Objectives of DMHP

- To provide class teachers with facilitative skill to promote life skill amount their students.
- To provide the class teachers with knowledge and skills to identify emotional conduct, scholastic and substance use problems in their students.
- To provide class teachers with a system of referral for students with psychological problems to the District Mental Health Team for inputs and treatment.

Prevalence of Mental Problem

- As per the National Mental Health Survey, 2016, prevalence of mental disorders in age group 13-17 years was 7.3%.
- The most common prevalent problems were Depressive Episode & Recurrent Depressive Disorder (2.6%), Agoraphobia (2.3%), Intellectual Disability (1.7%), Autism Spectrum Disorder (1.6%), Phobic anxiety disorder (1.3%) and Psychotic disorder (1.3%).

Global Centre for Traditional Medicine at Jamnagar

In News
The Ministry of Ayush and WHO signed a Host Country Agreement on 25th March 2022 for the establishment of the first WHO's Global Centre for Traditional Medicine in India.

Features of Agreement
- WHO will set up GCTM Centre in Jamnagar (Gujarat).
- It aims to support nations in developing policies & action plans to strengthen the role of traditional medicine as part of their journey to universal health coverage.
- The Government shall provide to WHO, free of charge, appropriate and adequate office premises for the Centre and its installations.
- The Government shall also be responsible for the maintenance and security of the workplace premises for the Centre, its installations and technical plants, together with storage and archive space, meeting space, equipment and other facilities.
- All expenditure involved for operational, programmatic, infrastructure and construction costs of the Interim Office and the Main Office of WHO GCTM will be borne by the Ministry of Ayush.
- The financial implications of Rs. 130.00 Cr (approx.) have been approved by the Ministry of Ayush.
- The WHO-GCTM Centre aims to provide support for all traditional medicines in the world.

Traditional Medicine
- Traditional medicine is a key pillar of health care delivery systems and plays a crucial role in maintaining good health and well-being not only in India but across the world.
- In recent year, traditional medicine therapies have also seen a major transformation as usage of artificial intelligence, technological innovations have made it more accessible to masses.
- GCTM will aim to integrate the benefits of traditional medicine with the achievements of modern science and create a comprehensive health strategy.

Development of Ayush Entrepreneurship

In News
For the purpose of development of the Ayush entrepreneurship Ministry of Ayush had developed a Central Sector Scheme namely Champion Services Sector Scheme for Medical Value Travel for implementation on Pan India basis.

Champion Services Sector Scheme

- Under this scheme, financial assistance in the form of Interest Subsidy is provided to private investors for the establishment of Super Specialty Hospitals/ Day Care Centres of the systems recognized under The National Commission for Indian System of Medicine (NCISM) Act, 2020 or The National Commission for Homeopathy (NCH) Act, 2020.
- Ministry of Ayush signed a MoU with Ministry of Micro, Small & Medium Enterprises (MSME) for the promotion of Ayush enterprises.
- The All India Institute of Ayurveda(AIIA) an autonomous body under Ministry of Ayush has set up an incubation centre i.e. AIIA-ICAINE (Incubation Centre for Innovation and Entrepreneurship) to support new startups in the Ayush sector.
- Academia-industry Research Incubation for Value-chain Up-gradation(ARIVU) has been setup by Central Council of Research in Siddha (CCRS) to promote innovation and entrepreneurship by translating novel ideas and innovation in various disciplines of Siddha Research.

Pharmacopoeia Commission for Indian Medicine

In News

The Government of India has established Pharmacopoeia Commission for Indian Medicine & Homoeopathy (PCIM&H), as a subordinate office under Ministry of Ayush by merging Pharmacopoeia Commission of Indian Medicine & Homoeopathy (PCIM&H) and the two central laboratories.

Functions of Commission

- The Commission is engaged in development of Pharmacopoial Standards for Ayurvedic, Unani, Siddha & Homoeopathic drugs.
- PCIM&H is also acting as Central Drug Testing cum Appellate Laboratory for Indian systems of Medicine & Homoeopathy.
- Quality Certifications Scheme implemented by the Quality Council of India (QCI) for grant of AYUSH Premium mark to Ayurvedic, Siddha and Unani products on the basis of third party evaluation of quality in accordance with the status of compliance to international standards.

The components of the AYUSH OushadhiGunvattaEvamUttpadanSamvardhanYojana (AOGUSY) Scheme are as under-

- Strengthening and up-gradation of Ayush Pharmacies and Drug Testing Laboratories to achieve higher standards.
- Pharmaco vigilance of ASU&H drugs including surveillance of misleading advertisements.
- Strengthening of Central and State regulatory frameworks including Technical Human Resource & Capacity Building programs for Ayush drugs.

India: Target to eliminate Kala-azar by 2023

In News

- Union Government of India has set the target to eliminate Kala-azar from country by 2023.
- Minister of State for Health and Family Welfare Dr Bharati Pravin Pawar said, out of 633 Kala-azar endemic blocks, 625 blocks have achieved the elimination target last year.
- India's target is way ahead than World Health Organisation (WHO)'s target of eliminating the disease by 2030.

About kala Azar
- Kala Azar is also called as Leishmaniasis.
- It is a neglected tropical disease, by which over 100 countries are affected, including India.
- Neglected tropical diseases are a group of multiple communicable diseases that are prevalent in tropical and subtropical conditions of 149 countries.
- The disease is caused due to parasite called Leishmania. This parasite is transmitted via bite of sand flies.

Types of Kala Azar
- Visceral leishmaniasis: It affects multiple organs and is considered as the most serious form of the disease. It is commonly called as Kala Azar in India.
- Cutaneous leishmaniasis: It is the most common type, affecting skin. It results into skin sores.
- Mucocutaneous leishmaniasis: It causes skin and mucosal lesions.

Treatment
- Only drug that is used to treat kala azar is miltefosine. However, this drug is losing its effectiveness rapidly, because of parasite's resistance to this drug.
- A protein called 'P4ATPase-CDC50', helps in intaking the drug by parasite.
- But other called 'P-glycoprotein', throws this drug out from parasite's body.

lumpy skin disease

In News
The registered cattle deaths due to Lumpy Skin Disease (LSD) in Gujarat have risen to 2,633 as 131 more animals succumbed due to the virus.

Lumpy Skin Disease
- The lumpy disease is highly contagious and infects cows and buffaloes mainly through vectors like blood-feeding insects, which leads to the formation of nodes on their skin.
- These nodes look like lumps.
- The Animal Husbandry Department has said that the disease, which originated in Africa, came to India via Pakistan in April.
- Besides Rajasthan, Punjab, Uttarakhand, Gujarat and Andaman and Nicobar Islands have been hit by the outbreak of the disease
- The infectious viral disease has spread across the state and it is caused by the capripox virus of poxviridae family, that affects cattle and buffaloes .
- It is transmitted by arthropod vectors such as mosquitoes, biting flies and ticks.

Ecology & Environment

India's first ever Animal Health Summit

In News
- Shri Parshottam Rupala, Union Minister of Fisheries, Animal Husbandry and Dairying said that there is need to strengthen the cooperative movement in the livestock sector.

- Inaugurating First India Animal Health Summit 2022, he called for greater use of Ayurveda for ensuring better animal health.

About Animal Health Summit

- First India Animal Health Summit 2022 was held at NASC Complex, New Delhi understanding the significance of animal health towards the broader objective of the country's food and nutrition security, rural incomes and prosperity and overall economic development.
- '**India Animal Health Summit 2022**' organized by Indian Chamber of Food and Agriculture (ICFA) and the Agriculture Today Group.
- The two-day event will host a plethora of panel discussions ranging from topics such as Animal Health policy initiatives to Business environment & investment opportunities in the Animal Health sector.
- The deliberations evolved will later be documented and presented to authorities.

India-Namibia sign an MoU on wildlife conservation

In News

Government of India and Government of the Republic of Namibia have entered into a Memorandum of Understanding (MoU) on wildlife conservation and sustainable biodiversity utilization, for establishing the cheetah into the historical range in India.

The main thrust areas of MoU are:

- Biodiversity conservation with specific focus on conservation and restoration of cheetah in their former range areas from which they went extinct,
- Sharing and exchange of expertise and capacities aimed at promoting cheetah conservation in two countries,
- Wildlife conservation and sustainable biodiversity utilization by sharing good practices in
- Technological applications, mechanisms of livelihood generation for local communities living in wildlife habitats, and sustainable management of biodiversity.
- Collaboration in areas of climate change, environmental governance, environmental impact assessments, pollution and waste management and other areas of mutual interest.
- Exchange of personnel for training and education in wildlife management, including sharing of technical expertise, wherever relevant.

About Cheetah

- The cheetah is one of the oldest of the big cat species, with ancestors that can be traced back more than five million years to the Miocene era.
- The cheetah is also the world's fastest land mammal that lives in Africa and Asia.
- Cheetah restoration will be part of a prototype for restoration of original cheetah habitats and their biodiversity, helping to stem the degradation and rapid loss of biodiversity.

Benefits of Re-introduction

- Bringing back a top predator restores historic evolutionary balance resulting in cascading effects on various levels of the ecosystem leading to better management and restoration of wildlife habitat (grasslands, scrublands and open forest ecosystems), conservation of cheetah's prey and sympatric endangered species and a top-down effect of a large predator that enhances and maintains the diversity in lower trophic levels of the ecosystems.
- The main goal of Cheetah reintroduction project in India is to establish viable cheetah metapopulation in India that allows the cheetah to perform its functional role as a top predator and provides space for the expansion of the cheetah within its historical range thereby contributing to its global conservation efforts.

- The action plan for cheetah translocations in Kuno National Park has been developed in compliance with IUCN guidelines.

Kuno National Park
- Kuno National Park of Madhya Pradesh is one the most unique destinations for all wildlife lovers and enthusiasts.
- It has a healthy population of chital, sambar, nilgai, wild pig, chinkara and cattle.
- Currently, the leopard and striped hyena are the only larger carnivores within the National Park, with the lone tiger having returned to Ranthambore earlier this year.

Schemes & Policies

PM Mitra Parks

In News
PLI Scheme and PM Mitra Parks will help Indian textile sector achieve the desired scale and size while also emerging as a strong competitor in the global market: Smt. Jardosh

PM Mitra Parks
- A park will be developed by a Special Purpose Vehicle which will be owned by the Central and State Government and in a Public Private Partnership (PPP) Mode.
- Each Park will have an incubation centre, common processing house and a common effluent treatment plant and other textile related facilities such as design centres and testing centres.
- The Master Developer will not only develop the Industrial Park but also maintain it during the concession period.

Funding
- The centre will provide development capital support for the development of common infrastructure of Rs 500 crore for each greenfield MITRA park and upto Rs 200 crore for each brownfield park.
- Greenfield describes a completely new project that has to be executed from scratch, while a brownfield project is one that has been worked on by others.

Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PMFME) Scheme

In News
- The centrally sponsored Pradhan Mantri Formalisation of Micro food processing Enterprises (PMFME) Scheme was launched on 29th June, 2020 by the Ministry of Food Processing Industries, Government of India under the Aatmanirbhar Bharat Abhiyan.
- The scheme has completed two years and a journey that started with the zest to empower the unorganized Micro Enterprises continues to fulfill the aim of formalising the food processing sector and celebrating their tremendous support towards the economy, has borne good results for the sector.

PMFME scheme
- The PMFME Scheme is currently being implemented in 35 States and Union Territories.
- Under the scheme, the submission process for the applicants to apply for the credit-linked subsidy is done through the online portal (www.pmfme.mofpi.gov.in).

- The digital GIS One District One Product (ODOP) map of India has been developed to provide details of ODOPs of all the States and UTs.
- The digital map also has indicators for Tribal, SC, ST, aspirational districts and Incubation Centers approved under the PMFME Scheme. It will enable stakeholders to make concerted efforts for its value chain development.
- 75 Incubation Centers have been approved under the scheme.
- The Ministry in collaboration with the National Institute of Food Technology Entrepreneurship and Management, Thanjavur (NIFTEM-T) has also developed an online portal for submission of Incubation Center proposals and a digital map for the facilitation of details of Incubation Centers across the country.
- The PMFME Scheme also envisages financial support of Rs. 40,000 for working capital and purchase of small tools for each member of the Self Help Group (SHG) engaged in food processing activities.

Operation "NARCOS"

In News
In order to bring attention to the menace of NDPS, a month long pan India drive against smuggling of narcotics through rail, was launched under code name Operation "NARCOS" in the month of June-2022.

Operation NARCOS
- Railway Protection Force as one of the law enforcing agency has gained prominence in recent times. RPF has been empowered to conduct search, seizure and arrest under NDPS Act since April 2019 and has been actively participating in the efforts of Government to restrict this illegal trade.
- Under this operation RPF has performed excellently against the carriers/transporters of Narcotics product through Indian Railways.
- RPF intensified its checks in trains and in identified black spots across the country in coordination with NCB and other LEA's to target drug peddlers involved in this illegal trade.

Achievements
RPF has recovered various narcotics products including designer products valued Rs.7,40,77,126/- and within its own domain arrested 165 persons who were carrying NDPS and handed them over to the concerned Law Enforcement Agencies for onward legal action.

Effects on Youth
- Narcotics not only destroys the health of youth, they also damage the economy and the well being of the nation.
- Drug addiction has far reaching implications as it affects both the body and the mental health of the person.

Why Operation was launched?
- Indian Railways plays a leading role in transportation of passengers and goods and has the widest network in India, that is why long-distance trains are often used by offenders to smuggle the NDPS into different states disguising drug carriers as common passengers.
- Thus, it becomes very challenging for the security agencies to stop this flow and prevent railways from becoming a conduit of illegal transportation of NDPS.

Swachh Sagar, Surakshit Sagar campaign

In News
This year on 17th September 2022, the Government of India along with other voluntary organizations, and the local society will run a cleanliness campaign "Swachh Sagar, Surakshit Sagar" along India's entire coastline.

About Campaign
- This campaign will include Ministry of Earth Sciences (MoES), Ministry of Environment Forest and Climate Change (MoEFCC), Indian Coast Guard, National Disaster Management Authority (NDMA) along with other social organizations and educational institutions.
- This campaign will see massive public participation both physically and virtually, mainly to make awareness about reducing the marine litter, minimal use of plastics, segregation at source and waste management.
- It will be the first-of-its-kind and longest running coastal cleanup campaign in the world with highest number of people participating in it.
- The participation of common man will convey the message of "**Swachh Sagar, Surakshit Sagar**" for the prosperity of not only coastal areas but also other parts of the country.
- A mobile app "**Eco Mitram"** has been launched to spread awareness about the campaign and also for the common people for voluntary registration for the beach cleaning activity on the 17th September 2022.
- Through this campaign, a mass behavioural change among the masses is intended by raising awareness about how plastic usage is destroying our marine life.
- A 75 days long campaign will be launched from 03rd July 2022 to raise awareness about "**Swachh Sagar, Surakshit Sagar**" culminating on "International Coastal Cleanup Day" on 17th September 2022.
- Globally, "International Coastal Clean Up Day" is celebrated on the third Saturday of September, every year.
- India's coastline of more than 7,500 km reflects our vast ocean resources. Most importantly, the Indian Ocean is the only ocean named after a country, that is, India.

State Ranking Index for NFSA

In News
Odisha has been adjudged the top ranked State followed by Uttar Pradesh at the 2nd spot and Andhra Pradesh at third amongst the General Category States in 'State Ranking Index for NFSA'.

Major Highlights
- Among the Special Category states/UTs, Tripura stood first followed by Himachal Pradesh and Sikkim respectively.
- Further, among the 3 UTs where Direct Benefit Transfer (DBT)- Cash is operational, Dadra and Nagar Haveli & Daman and Diu is the top ranked UT.

About Ranking of NFSA
- Union Minister of Consumer Affairs, Food & Public Distribution, Textiles and Commerce and Industry, Shri Piyush Goyal released the 1st edition of '**State Ranking Index for NFSA**' during the conference of Food Ministers of States/UTs on 'Food Nutrition and Security in India' organized by Department of Food and Public Distribution.
- This "**State ranking Index for NFSA**" attempts to document the status and progress of implementation of NFSA and various reform initiatives across the country, post consultation with states.
- It highlights the reforms undertaken by States and UTs and create a cross-learning environment and scale-up reform measures by all states and union territories.

- The present Index is largely focused on NFSA Distribution and will include procurement, PMGKAY Distribution in future.
- The Index for ranking the states and UTs is built on three key pillars which covers the end-to-end implementation of NFSA through TPDS.
- **These pillars are**: i) NFSA— Coverage, targeting and provisions of the Act, ii) Delivery platform, and iii) Nutrition initiatives.

NFSA

The National Food Security Act (NFSA) was enacted on July 5, 2013 and in order to celebrate the day, the conference was organized to deliberate and discuss nutritional security, food security, best practices followed in Public Distribution System, crop diversification, reforms in PDS and storage sector.

SVANidhi Mahotsav

In News

The Minister for Housing and Urban Affairs had launched **SVANidhi Mahotsav** – a cultural festival for celebrating the success of PM SVANidhi Scheme and SVANidhi Mahotsav website recently.

SVANidhi Mahotsav

- MoHUA is organising **'SVANidhi Mahotsav'** – a cultural festival for celebrating the success of PM SVANidhi Scheme and the beneficiary street vendors & their families, from 09 July to 31 July, 2022 in 75 cities across 33 States/UTs of the country.
- SVANidhi Mahotsav is a festival for celebrating and recognizing beneficiary street vendor's growth story and their contribution towards Indian economy.
- The festival aims to celebrate 75 years of India's independence with these nano-entrepreneurs, honoring their journey under PM SVANidhi scheme for demonstrating credit discipline, digital behavior and displaying their astute business acumen.

PM SVANIDHI Scheme

- The scheme was launched on June 1, 2020 to facilitate working capital loans to the street vendors to help them restart their businesses which were adversely impacted due to the lockdowns imposed during COVID-19 pandemic.
- He further said that this scheme is the first comprehensive effort for financial inclusion of the street vendors.
- Prior to this Scheme, street vendors were dependent on the informal credit channels paying high rates of interest.
- 36.6 lakh loans have been sanctioned and 33.2 lakh loans have been disbursed.
- The amount disbursed so far is ₹3,592 Cr and about 12 lakh street vendors have repaid their first loan.

Features

- The scheme facilitates collateral free working capital loan upto ₹10,000, of 1 year tenure, with enhanced loan of ₹20,000 and ₹50,000 in the second and third term respectively, on repayment of earlier loans, to enable business expansion.
- The Scheme incentivizes adoption of digital transactions by way of cashback of upto ₹ 100 per month which in turn would build their credit profile facilitating future loans from the Lending Institutions
- The Scheme incentivises the repayment by way of 7% interest subsidy
- The structuring of the product was done in such a way that if a Street Vendors repays the loan EMIs promptly and conducts the required number of digital transactions, the **interest subsidy and the cashback availed would make the loan interest free.**

Mission Vatsalya Scheme

In News
The Ministry of Women and Child Development is implementing a Centrally Sponsored Scheme "Mission Vatsalya" erstwhile Child Protection Services (CPS) Scheme, since 2009-10 for the welfare and rehabilitation of children.

Objective-
- To secure a healthy and happy childhood for each and every child in India, ensure opportunities to enable them to discover their full potential and assist them in flourishing in all respects, in a sustained manner, foster a sensitive, supportive and synchronized ecosystem for development of children, assist States/UTs in delivering the mandate of the Juvenile Justice Act 2015 and achieve the SDG goals.
- **Mission Vatsalya** promotes family-based non-institutional care of children in difficult circumstances based on the principle of institutionalization of children as a measure of last resort.
- **Mission includes**- Improve functioning of statutory bodies; Strengthen service delivery structures; Upscale institutional care/services; Encourage non-institutional community-based care; emergency outreach services; Training and capacity building.

Rashtriya Gokul Mission

In News
The Department of Animal Husbandry & Dairying has been implementing Rashtriya Gokul Mission (RGM) with the aim of development and conservation of indigenous bovine breeds, genetic upgradation of bovine population and enhancement of milk production and productivity of bovines thereby making dairying more remunerative to the farmers.

Major Objectives
- To enhance productivity of bovines and increasing milk production in a sustainable manner using advance technologies
- To propagate use of high genetic merit bulls for breeding purposes.
- To enhance Artificial insemination coverage through strengthening of breeding network and delivery of Artificial insemination services at farmers doorstep
- To promote indigenous cattle & buffalo rearing and conservation in a scientific and holistic manner.
- In order to deliver breeding inputs at farmers doorstep so far 29,218 Multi-purpose Artificial Insemination Technicians in Rural Areas (MAITRIs) have been inducted.
- 16 Gokul Grams and 2 National Kamdhenu Breeding Centre have been established for development and conservation of Indigenous breeds in scientific and holistic manner.

Toyota Technical Education Program(T-TEP) initiative

In News
National Skill Development Corporation (NSDC) today announced the signing of a Memorandum of Understanding (MoU) with Toyota Kirloskar Motor [TKM] and Automotive Skill Development Council (ASDC) to train 18,000 students in three years.

About the Initiative

- Focus on rural areas, making them more employable through the company's unique training initiative — Toyota Technical Education Program (T-TEP).
- Students will be trained across five automotive job roles such as General Technician, Body and Paint Technician, Service Advisor, Sales consultants and Call Center Staff.
- Aimed at generating talented and technically skilled professionals for the automobile industry, T-TEP is strongly aligned with Skill India Mission and so far, been associated with 56 ITI/Polytechnic colleges covering 21 states.
- Currently more than 10,000 students have been trained and 70% of the students are working in various automobile companies.
- T-TEP has become a benchmark in imparting automotive training and providing immense benefits to the automotive service industry and society at large.
- By partnering with TKM and ASDC, NSDC will not only be able to build a highly skilled technical workforce, with greater career prospects in the automotive service industry, but also enable youngsters earn a decent livelihood by providing them with employment opportunities.
- As a part of this initiative, ASDC will identify the institute as per the requirements and Toyota will support the institute with latest curriculum covering automobile fundamentals, safety, Toyota values and basic soft skills.
- In addition, the company will provide e-learning content, engines, transmissions, practice kits and train the institute's faculty through Train The Trainer approach.

Pradhan Mantri Gram Sadak Yojana

In News

Pradhan Mantri Gram Sadak Yojana-I (PMGSY-I) was launched as a one-time special intervention to provide rural connectivity, by way of a single all-weather road, to the eligible unconnected habitations of designated population size.

Technologies under PMGSY

- **PMGSY-II** was launched for upgradation of selected Through Routes and Major Rural Links (MRLs) with a target to upgrade 50,000 Km in various states and Union Territories.
- In 2016, **Road Connectivity Project for Left Wing Extremism Affected Areas (RCPLWEA)** for construction/upgradation of strategically important roads was launched as a separate vertical under PMGSY.
- PMGSY-III launched in 2019 mainly focuses on the consolidation of 125000 Km existing through routes and Major Rural Links that connect habitations, inter-alia, to Gramin Agricultural Markets (GrAMs), Higher Secondary Schools and Hospitals.
- Use of new/green technologies is one such intervention which has resulted not only in savings of carbon footprint but also in savings of fuel.
- In order to promote cost-effective and fast construction technologies in the construction of rural roads, using New materials/Waste materials/Locally available materials, NRIDA has issued 'Guidelines on Technology Initiatives'.
- This initiative has helped introduce more than 40 technologies including **waste plastics, cold mix technology, cell filled concrete, stabilization using cement and lime, nano technology and Full Depth Reclamation (FDR)**.
- Under PMGSY III, GeoSadak application has been developed, which is an Online Geospatial Transaction System that enables the States to upload, generate report and edit GIS data online.

SVAMITVA Scheme

In News
The Central Sector Scheme, **SVAMITVA**, aims to provide the '**Record of Rights**' to village household owners possessing houses in inhabited areas, called Abadi in some States, with legal ownership rights (Property cards/Title deeds).

About SVAMITVA Scheme
- **The scheme** aims to cover 6.62 lakh villages in the country from Financial Year 2020-21 to Financial Year 2024-25.
- It is being implemented with the collaborative efforts of the Ministry of Panchayati Raj, Survey of India (SoI), State Revenue Department, State Panchayati Raj Department and National Informatics Centre.
- Under the scheme, the land parcels in rural inhabited area of all the villages are surveyed using drone technology.

Fund Allocation
- Under the scheme, funds to Survey of India are provided for two components – Large Scale Mapping (LSM) using drones and establishment of Continuous Operating Reference Station (CORS).
- Funds on limited scale are also provided directly to States for Information, Education, Communication (IEC) and setting up of State Project Monitoring Unit (SPMU).
- Under SVAMITVA scheme funds are provided to SoI and States/UTs on the basis of number of villages to be covered during a period of time.

World's first locomotion trials of the Deep-Sea Mining System in the Central Indian Ocean

In News
- Union Minister of State (Independent Charge) Science & Technology;Dr Jitendra Singh presented National Science Awards and lauded India's "Deep Sea" initiatives.
- He also complimented the scientists for conducting world's first locomotion trials of the Deep-Sea Mining System in the Central Indian Ocean at depth of 5270 meters.

Fully Automated Coastal observation System
- Dr Jitendra Singh launched a first-of-its-kind and state-of-art fully automated buoy-based coastal observation and water quality nowcasting system for the Indian Ocean developed by Indian National Centre for Ocean Information Services (INCOIS), Hyderabad.
- The system includes high-end sensors onboard an automated buoy integrated to a coastal observatory located in Kochi.
- The system will benefit various stakeholders, including coastal dwellers, fisherfolk, maritime industry, researchers and agencies dealing with pollution, tourism, fisheries, and the coastal environment.
- It will provide real-time data of 19 water quality-related measurements such as temperature, salinity, dissolved oxygen, turbidity, etc., which will help generate accurate nowcasts about coastal water quality, improve indices of coastal ecosystems' health, and calibrate and validate sensors onboard satellites such as Oceansat-III.
- INCOIS will provide this data free of cost to the public through a dedicated website. Another such observatory in Vishakhapatnam is imminent.

Deep Ocean Mission

- The focus of the mission will be on deep-sea mining, ocean climate change advisory services, underwater vehicles and underwater robotics related technologies.
- The Ministry of Earth Sciences (MoES) will be the nodal Ministry implementing this multi-institutional mission.
- A manned submersible will be developed to carry three people to a depth of 6,000 metres in the ocean with a suite of scientific sensors and tools. An Integrated Mining System will be developed for mining polymetallic nodules at those depths in the central Indian Ocean.
- Development of Ocean Climate Change Advisory Services.
- Development of a component for searching deep sea flora and fauna, including microbes, and studying ways to sustainably utilise them.
- It will also have a component to explore and identify potential sources of hydrothermal minerals that are sources of precious metals formed from the earth's crust along the Indian Ocean mid-oceanic ridges.

National Initiative for Developing and Harnessing Innovations (NIDHI)- Entrepreneurs-in-Residence (EIR) program

In News

Union Minister of State (Independent Charge) Science & Technology; Dr Jitendra Singh said, 604 aspiring entrepreneurs or startups have been supported so far under National Initiative for Developing and Harnessing Innovations (NIDHI)- Entrepreneurs-in-Residence (EIR) program.

NIDHI- EIR Program

- The main objective of **NIDHI EIR** program is to encourage graduating students to take entrepreneurship instead of seeking jobs.
- The selected NIDHI-EIR support recipient (aspiring entrepreneurs/startups) is eligible for grant up to Rs.30,000/- per month for a period of 12 months.
- This fellowship is extendable up to 18 months in case of deserving candidates.
- **Entrepreneurs-in- Residence** (EIR) is the program introduced under the umbrella of **National Initiative for Developing and Harnessing Innovations** (NIDHI) by Department of Science & Technology (DST) in the financial year 2016-17.
- This program aims to inspire and provide support to S&T qualified persons who aspire to be an entrepreneur and has an innovative idea.
- The **NIDHI EIR** program is positioned as a pre-incubation program to generate new pipeline of entrepreneurs or startups.

Samudrayaan Mission

In News

Samudrayaan Mission is aimed to develop a self propelled manned submersible to carry 3 human beings to a water depth of 6000 meters in the ocean with a suite of scientific sensors and tools for deep ocean exploration.

Features of the Mission

- It is India's first unique manned ocean mission that aims to send men into the deep sea in a submersible vehicle for deep-ocean exploration and mining of rare minerals.
- It will send three persons in a manned submersible vehicle MATSYA 6000 to a depth of 6000 metres into the sea for deep underwater studies.

- Submarines go only about 200 metres.
- It is a part of the Rs 6000-crores Deep Ocean Mission.
- The projected timeline is five years for the period 2020-2021 to 2025-2026.

Deep Ocean Mission
- It was approved in June 2021 by the (MoES). It aims to explore the deep ocean for resources, develop deep-sea technologies for sustainable use of ocean resources, and support the Blue Economy Initiatives of the Indian Government.
- The cost of the Mission has been estimated at Rs. 4,077 crore over a five-year period and will be implemented in phases.

NIOT
National Institute of Ocean Technology (NIOT), Chennai, an autonomous institute under MoES, has developed 6000m depth rated Remotely Operated Vehicle (ROV) and various other underwater instruments such as Autonomous Coring System (ACS), Autonomous Underwater Vehicle (AUV) and Deep Sea Mining System (DSM) for the exploration of deep sea.

Power Sector's Revamped Distribution Sector Scheme

In News
- In a historic initiative, PM to launch Power Sector's Revamped Distribution Sector Scheme on 30th July.
- He will dedicate and lay the foundation stone of various green energy projects of NTPC. He will also launch the National Solar rooftop portal.

About the scheme
- **Aim**- at improving the operational efficiencies and financial sustainability of the DISCOMs and Power Departments.
- With an outlay of over Rs. 3 lakh crore over a period of five years from FY 2021-22 to FY 2025-26, the scheme aims to provide financial assistance to DISCOMs for modernization and strengthening of distribution infrastructure, focussing on improvement of the reliability and quality of supply to end consumers.
- It also aims to reduce the AT&C (Aggregate Technical and Commercial) losses to pan-India levels of 12-15% and ACS-ARR (Average Cost of Supply - Average Revenue Realized) gap to zero by 2024-25 by improving the operational efficiencies and financial sustainability of all state-sector DISCOMs and Power Departments.

Other Initiatives
- He will dedicate and lay the foundation stone of various green energy projects of NTPC worth over Rs 5200 crore.
- He will inaugurate the 100 MW **Ramagundam Floating Solar Project** in Telangana and the 92 MW Kayamkulam Floating Solar Project in Kerala.
- He will lay the foundation stone of 735 MW Nokh Solar Project in Rajasthan, Green Hydrogen Mobility Project in Leh and Kawas Green Hydrogen Blending with Natural Gas project in Gujarat.
- **The Ramagundam project** is India's largest floating solar PV project with 4.5 lakh 'Made in India' solar PV modules.
- **Kayamkulam project** is the second largest floating solar PV project consisting of 3 lakh 'Made in India' solar PV panels floating on water.
- The 735 MW Solar PV Project at Nokh, in Jaisalmer, Rajasthan is India's largest Domestic Content Requirement based Solar project with 1000 MWp at a single location, deploying high-wattage bifacial PV Modules with tracker system.

- The Green Hydrogen Mobility Project at Leh, Ladakh is a pilot project and aims for five Fuel Cell Buses to be run in and around Leh.
- This pilot project would be the first deployment of Fuel Cell Electric Vehicles for public use in India.
- The Green Hydrogen Blending Pilot Project at NTPC Kawas Township will be India's first Green Hydrogen Blending Project helping in reducing the usage of natural gas.
- He will also launch national solar rooftop portal, which will enable online tracking of the process of installation of rooftop solar plants, starting from registering the applications to release of subsidy in residential consumers' bank accounts after installation and inspection of the plant.

PM Shri Schools

In News
Union Education Ministry is planning to set up "PM Shri Schools".

PM Shri Schools
- PM Shri Schools will be the laboratory of National Education Policy (NEP) 2020.
- They will be fully equipped to prepare students for the future.

Features
- It could imbibe 5+3+3+4 (to replace the 10+2 schooling system) approach of NEP covering pre-school to secondary, emphasis on ECCE, teacher training & adult education.
- There will be an integration of skill development with school education and prioritising learning in mother tongue which are steps for preparing global citizens of the 21st century.
- Since the NEP 2020 also increases the span of the Right to Education Act, it will now cover ages 3 to 18.

5+3+4 System
- As per the new school education system of 5+3+3+4 outlined in NEP 2020, children will spend 5 years in the Foundational stage, 3 years in the Preparatory stage, 3 years in the Middle stage, and 4 years in the Secondary stage.
- The division of stages has been made in line with the kind of cognitive development stages that a child goes through early childhood, school years, and secondary stage.

International Relation

India gets elected to the Intergovernmental Committee of UNESCO's 2003

In News
India has been elected as a member of the Intergovernmental Committee of UNESCO's 2003 Convention for the Safeguarding of the Intangible Cultural Heritage for the 2022-2026 cycle.

Intergovernmental Committee of UNESCO's 2003
- The Intergovernmental Committee of the 2003 Convention consists of 24 members and is elected in the General Assembly of the Convention according to the principles of equitable geographical representation and rotation.
- States Members to the Committee are elected for a term of four years.

- In the past, India has served two terms as a member of the Intergovernmental Committee of this Convention.
- One from 2006 to 2010 and the other from 2014 to 2018.
- For its 2022-2026 term, India has formulated a clear vision for the protection and promotion of the intangible cultural heritage of humanity.
- India ratified the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage in September 2005.
- India will focus upon include fostering community participation, strengthening international cooperation through intangible heritage, promoting academic research on intangible cultural heritage, and aligning the work of the Convention with the UN Sustainable Development Goals.

Functions
- Promoting the objectives of the Convention, providing guidance on best practices, and making recommendations on measures for the safeguarding of intangible cultural heritage.
- The Committee also examines requests submitted by States Parties for the inscription of intangible heritage on the Lists as well as proposals for programmes and projects.

Significance
- India will have the opportunity to closely monitor the implementation of the 2003 Convention.
- With the aim of strengthening the scope and impact of the Convention, India seeks to mobilize the capacity of different actors worldwide in order to effectively safeguard intangible heritage.

Varanasi Named First Cultural And Tourism Capital Of SCO

In News
The holy city of Varanasi showcasing India's culture and traditions over the ages will be declared the first "Cultural and Tourism Capital" of the Shanghai Cooperation Organisation.

Significance
- It will become the cultural and tourism capital of the SCO for year 2022-23, as a part of SCO's new rotating initiative that seeks to promote people-to-people ties and tourism among member countries.
- Under the initiative, a city of cultural heritage from member states will be designated as cultural and tourism capital of SCO each year. Varanasi has become the first city to get the title.
- City will be selected from member country, which will take over the Presidency of SCO on rotational basis.
- Title will be given to cities in a bid to highlight its prominence.
- The new initiative of the organisation will be implemented after the Samarkand Summit 2022.

About SCO
- SCO is a Eurasian political, economic and security alliance.
- It is the successor of Shanghai Five, which was established in 1996.
- Formation of SCO was announced on June 15, 2001.
- Following this, the SCO Charter was inked on July 7, 2002 which came into effect on September 19, 2003. Membership of SCO has expanded to 8 countries now, viz., China, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Russia, India and Pakistan. India and Pakistan got membership on June 9, 2017.

EU's options in palm oil row with Malaysia and Indonesia

In News

European Union previously decided to phase out the import of unsustainable palm oil by 2030. Indonesia and Malaysia say the EU's palm oil restrictions are unfair, "discriminatory", and "crop apartheid" and challenged the EU in the WTO.

Details

- **Indonesia and Malaysia**, are the world's two largest palm oil producers, accounting for **90% of the global production**. However, most of it is produced on the plantation by clearing rainforests.
- **ReFuelEU initiative**: EU lawmakers adopted draft rules for the ReFuelEU initiative, which would mean 85% of all used aviation fuel would have to be "sustainable" by 2050.

Palm Oil

- It is an edible vegetable oil derived from the mesocarp (reddish pulp) of the fruit of the oil palms.
- Uses: As a cooking oil, in cosmetics, processed foods, cakes, chocolates, soaps, spreads, shampoo, and biofuel (the use of crude palm oil in making biodiesel is being branded as 'green diesel')
- It is inexpensive and produces more oil per hectare as compared to other alternatives such as soybean.
- India is the biggest importer of palm oil (almost 40% of its need)
- Government initiatives: National Mission on Edible Oil-Oil Palm(to boost India's domestic palm oil production by 3 times (till 2025-26)); Kharif Strategy 2021 for oilseeds; yellow revolution.

India-Singapore 8,100-km Submarine Cable System

In News

The Expert Appraisal Committee under the Ministry of Forests has recommended Coastal Regulatory Zone (CRZ) clearance for the 8,100-KM long Myanmar/Malaysia-India-Singapore Transit (MIST) Submarine Cable System connecting Mumbai and Chennai in India.

MIST

- MIST will directly connect Singapore, Malaysia, Myanmar, Thailand and India (Mumbai and Chennai) and deliver a design capacity of more than 216 terabits per second (Tbps).
- MIST cable system will provide secure reliable, robust and affordable telecom facilities in Asia.
- The main trunk route is from Tuas (Singapore) to Mumbai (India).
- A submarine cable system consists of a communication cable laid on the sea bed between cable landing stations (CLS) on the land to carry telecommunication signals across stretches of ocean. Submarine cable systems generally use optical fibre cables to carry international traffic.

5th Session of India-Egypt Joint Trade Committee

In News

5th Session of India-Egypt Joint Trade Committee and 5th India-Egypt Joint Business Council Meeting held recently in Cairo.

Details

- The 5th India-Egypt JTC took place in the backdrop of robust growth in trade and investment ties between India and Egypt.

- Bilateral trade reached a historic record high of USD 7.26 bn in FY 2021-22 which is an increase of 75% over FY 2020-21.
- Egypt is also one of the largest investment destinations for India in the region with existing Indian investment of USD 3.15 bn.
- Indian companies continue to execute several projects in Egypt.
- **Joint Business Council** (JBC) was jointly organized by FICCI and Egyptian Commercial Services.
- A large business delegation from India is currently visiting Egypt to participate in the JBC and to hold B2B interactions with their Egyptian counterparts.

Significance for India

- India has good relationships with Egypt as well as all the GCC states including Qatar. Such reconciliation and rapprochement between countries in the region could expand the opportunities for India.
- The Gulf region is one of the biggest markets for Indian goods and is the most important supplier of hydrocarbons to its economy. Peaceful relationships between these gas and oil reserve rich states are favourable to catering to the energy needs of India.
- The Gulf countries host more than millions of Indian migrants. They are mostly the workers who carry out development activities and they are the prime sources of remittances to India.

India contributes $2.5 million to UN RWA for Palestine refugees

In News
India contributed USD 2.5 million to the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA).

UNRWA
- Established in 1949 with the mandate to provide assistance and protection to about 5.6 mn Palestinian refugees (in West Bank, Gaza Strip, Lebanon, Syria and Jordan)
- Funding: only through voluntary contributions
- India: As a part of the Link West Policy, India has de-hyphenated its relationship with Israel and Palestine in 2018 to treat both the countries as mutually independent and exclusive.
- India is a dedicated donor to UNRWA, having given USD 20 million in support of core UNRWA services to Palestine refugees across the Middle East since 2018.
- The agency was mandated to provide assistance and protection for about 5.6 million Palestinian refugees registered in the West Bank, Gaza Strip, and refugee camps in Lebanon, Syria, and Jordan.
- The UNRWA services for Palestinian refugees involve education, health care, relief, infrastructure, camp improvement, protection and microfinance.

Defence & Security

Autonomous Flying Wing Technology Demonstrator

In News
Maiden flight of the Autonomous Flying Wing Technology Demonstrator was carried out successfully by Defence Research and Development Organisation (DRDO) from the Aeronautical Test Range, Chitradurga, Karnataka recently.

About Flying Wing Demonstrator
- The Unmanned Aerial Vehicle is designed & developed by Aeronautical Development Establishment (ADE), Bengaluru, a premier research laboratory of DRDO.
- It is powered by a small turbofan engine.
- The airframe, undercarriage and entire flight control and avionics systems used for the aircraft were developed indigenously.
- It is a major achievement towards autonomous aircraft and will pave the way for 'Aatmanirbhar Bharat' in terms of critical military systems.

ALH Squadron INAS 324 Commissioned

In News
Indian Naval Air Squadron 324 was commissioned into the Indian Navy in the presence of Vice Admiral Biswajit Dasgupta.

Features
- The unit is the first Naval Squadron on the Eastern Seaboard operating the indigenously designed and built Advanced Light Helicopter (ALH) MK III (MR) helicopters.
- **INAS 324** has been named "**KESTRELS**" which are birds of prey and have good sensory capabilities symbolising the envisaged role of the Aircraft and the Air Squadron.
- The Insignia of the Squadron depicts a 'KESTREL' searching over vast blue and white sea waves, which signifies the integral Maritime Reconnaissance (MR) and Search and Rescue (SAR) role of the Squadron.
- ALH MK III helicopters are fitted with state-of-the-art equipment which includes modern surveillance radar and electro-optical sensors.
- These helicopters can also be deployed for Humanitarian Assistance and Disaster Relief(HADR) Operations as well as Special Operations with Marine Commandos.
- The helicopter also has an airborne Medical Intensive Care Unit (MICU) for use in the Air Ambulance role to facilitate the medical evacuation of critically ill patients.

RIMPAC-22

In News
Indian Navy's indigenous Frigate INS Satpura and P8I LRMRASW aircraft are at Pearl Harbour in Hawaii taking part in one of the largest multilateral Naval Exercises, the Rim of the Pacific exercise, also known as RIMPAC.

RIMPAC Exercise
- Indian Navy's P8I LRMRASW aircraft arrived at AFB Hickam, Joint Base Pearl Harbour, Hawaii, USA to participate in the 28th edition of the biennial Rim of Pacific (RIMPAC-22), the world's largest international maritime exercise.
- The RIMPAC started in 1971 as an annual exercise by the US, Australia, and Canada. But from 1974, maritime exercise became a biennial event.
- It is aimed at enhancing interoperability and building trust among Navies of friendly foreign countries.
- **The theme** of RIMPAC 2022 is 'capable, adaptive, partners.
- India first participated in RIMPAC in 2014 when the indigenously built Shivalik class stealth frigate INS Sahyadri took part in the exercise.
- INS Sahyadri again represented the country in the 2018 edition of the event.

INS TARKASH

In News
Indian Navy's stealth frigate INS Tarkash, visited Djibouti as part of her long range overseas deployment followed by Maritime Partnership Exercise with Sudan Navy.

INS Tarkash
- INS Tarkash is a state-of-the-art platform and has a weapon-sensor fit that enables her address threats in all dimensions.
- The ship is part of the Indian Navy's Western Fleet and functions under the operational command of the Flag Officer Commanding-in-Chief, Western Naval Command.
- INS Tarkash also conducted a Maritime Partnership Exercise with Sudan Navy ships Almazz (PC 411) and Nimer (PC 413) in the Red Sea near the Sudan Naval Base on 07 July 2022.
- The exercise included manoeuvres, flying operations for vertical replenishment, visit and board operations, and communication procedures.
- It provided opportunity for exchange of professional experiences and strengthening maritime cooperation between the two countries.

INDIGENOUS AIRCRAFT CARRIER VIKRANT

In News
The fourth phase of Sea Trials for IAC has been successfully completed, during which integrated trials of majority of equipment and systems onboard including some of the Aviation Facilities Complex equipment were undertaken.

INS Vikrant
- The Indigenous design and construction of Aircraft Carrier by Indian Navy and Cochin Shipyard Ltd is a shining example in the Nation's quest for 'AatmaNirbhar Bharat' and 'Make in India Initiative' with more than 76% indigenous content.
- The vessel, to be named Vikrant after the decommissioned maiden carrier of the Navy.
- It will have an air component of 30 aircraft, comprising MiG-29K fighter jets, Kamov-31 airborne early warning helicopters and the soon-to-be-inducted MH-60R multi-role helicopter, besides the indigenous Advanced Light Helicopters.
- It is expected to have a top speed of 30 knots (approximately 55 kmph) and is propelled by four gas turbines. Its endurance is 7,500 nautical miles at 18 knots (32 kmph) speed.
- The shipborne weapons include Barak LR SAM and AK-630, while it has MFSTAR and RAN-40L 3D radars as sensors. The vessel has a Shakti EW (Electronic Warfare) Suite.

Raksha Mantri launches Y- 3023 Dunagiri, Project 17A frigate

In News
Raksha Mantri Shri Rajnath Singh launched Y- 3023 Dunagiri, Project 17A frigate built by Garden Reach Shipbuilders Limited (GRSE) in Kolkata.

Features
- P17A Frigates are follow-on class of the P17 (Shivalik Class) Frigates with improved stealth features, advanced weapons and sensors and platform management systems.
- Seven P17A Frigates are under various stages of construction at Mazagaon Dock Limited (MDL) and GRSE.

- This warship has been named after a peak in Uttarakhand, Dunagiri.
- The Navy had a warship of the same name, which retired in 2010 after 33 years of service.
- Dunagiri project generated more than 3000 local employment opportunities.
- This warship is the fourth warship of Project-17A.
- A total of seven warships are to be built for the Navy under this project.
- Four are being built at Mazagon Dockyard in Mumbai.
- Three are being built in Kolkata
- The seven warships are being named after different mountain peaks of the country.
- In addition, 29 Indian OEMs along with MSMEs across the country are contributing to this project.
- 75 per cent of the weapons, navigation systems, instruments and equipment in INS Dunagiri are indigenous. Its design has been prepared by the Directorate of Naval Design of the Navy.
- It has better stealth mechanism, modern weapons, sensors and management system. Its old version was retired on this day in 2010.

Significance
- The economic, political and trade relations between countries are constantly evolving. Security challenges in the Indian Ocean region and Indo-Pacific are constantly increasing.
- In order to achieve the Prime Minister's Vision of **'SAGAR',** i.e. 'Security and Growth for All in the Region' and to protect, preserve and promote India's National Maritime Interests, Indian Navy, Indian Coast Guard and other organisations have to increase the infrastructure and assets so that the country stay ahead of the curve in dealing with these challenges.

INS SINDHUDHVAJ

In News
INS Sindhudhvaj bid adieu to Indian Navy recently serving for a glorious period of 35 years.

Features
- The submarine crest depicts a gray colour nurse shark and the name means flag bearer at sea. Sindhudhvaj, as the name suggests, was the flag bearer of indigenisation and Indian Navy's efforts towards achieving Atmanirbharta in the Russian built Sindhughosh class submarines throughout her journey in the navy.
- She had many a firsts to her credit including operationalisation of the indigenised sonar USHUS, Indigenised Satellite Communication systems Rukmani and MSS, Inertial Navigation System and Indigenised Torpedo Fire Control System.
- She also successfully undertook mating and personnel transfer with Deep Submergence Rescue Vessel and only submarine to be awarded CNS Rolling trophy for Innovation by the Honourable Prime Minister Mr. Narendra Modi.

'Swavlamban'

In News
'Swavlamban', the maiden seminar of the Naval Innovation and Indigenisation Organisation (NIIO), was held at New Delhi.

About Seminar
- The two day seminar saw enthusiastic participation by the academia, industry, policy makers, think tanks, students and senior government officials, in addition to the naval personnel.

- The highlight of the seminar was the release of the iDEX DISC7 (SPRINT) challenges by the Prime Minister.
- **SPRINT** (Supporting Pole-vaulting in R&D through iDEX, NIIO and TDAC) is a collaborative project between the Defence Innovation Organisation (DIO) and NIIO aimed at developing atleast 75 indigenous technologies / products as a part of Azadi Ka Amrit Mahotsav.
- The challenges span across a wide range of niche technology fields including Artificial Intelligence (AI), autonomous and unmanned systems and Information Technology.

MARITIME PARTNERSHIP EXERCISE

In News
A Maritime Partnership Exercise (MPX) was conducted between Japan Maritime Self Defense Force and Indian Navy recently in Andaman Sea.

Maritime Exercise
- The exercise were aimed at enhancing interoperability and streamlining seamanship and communication procedures.
- This exercise is part of the ongoing efforts between the two navies towards ensuring safe and secure international shipping and trade in Indian Ocean Region.
- INS Sukanya, an offshore patrol vessel and JS Samidare, a Murasame class destroyer, undertook various exercises including seamanship activities, aircraft operations and tactical manoeuvres as part of the operational interaction.
- The two countries have been carrying out regular exercises in IOR towards reinforcing maritime association.

Miscellaneous

Solar Decathlon

In News
Union Minister of State (I/C) Science & Technology; Minister of State (I/C) Earth Sciences; called for promoting StarUps in "**carbon neutral**" building construction and linking them with industry to help India achieve 500GW non-fossil energy capacity by 2030.

Solar Decathlon India
- Solar Decathlon India is a U.S.-India collaboration under an MOU between the Indo-U.S. Science and Technology Forum (IUSSTF) and the US Department of Energy, and is conducted by the Alliance for an Energy Efficient Economy (AEEE) and the Indian Institute for Human Settlements (IIHS).
- Solar Decathlon India is supported by the Department of Science and Technology (DST).
- It is a unique initiative that is building a network of young professionals who can innovate and implement resilient net- zero energy buildings to combat climate change, as well as a network of faculty instructors who can guide innovation and mentor multi-disciplinary projects.

Challenges
- Globally, the construction and operation of buildings account for 38% of the total energy related CO_2 emissions that cause global warming.
- India is experiencing a building boom, and almost 70% of the floor area that India will have in 2050 is going to be new construction in the next 28 years.

- This presents a huge opportunity to make 70% of our buildings net-zero by leveraging new technologies and encouraging the use of local, sustainable building materials.
- Solar Decathlon India is the hub where this opportunity comes together for the real estate industry to explore climate change solutions with students and faculty, and apply the most feasible technology and design innovations on their projects.

India's largest floating solar power project commissioned

In News

India's largest floating Solar Power Project is now fully operational. NTPC declared Commercial Operation of the final part capacity of 20 MW out of 100 MW Ramagundam Floating Solar PV Project at Ramagundam, Telangana with effect from 00:00 hours of July 01, 2022.

Features Solar Power Project

- With the operationalisation of 100-MW Solar PV Project at Ramagundam, total commercial operation of Floating Solar Capacity in Southern Region rose to 217 MW.
- The 100-MW Floating Solar project at Ramagundam is endowed with advanced technology as well as environment friendly features.
- Constructed with financial implication of Rs. 423 crores through M/s BHEL as EPC (Engineering, Procurement and Construction) contract, the project spreads over 500 acres of its reservoir. Divided into 40 blocks, each having 2.5 MW.
- Each block consists of one floating platform and an array of 11,200 solar modules.
- The floating platform consists of one Inverter, Transformer, and a HT breaker.
- The solar modules are placed on floaters manufactured with HDPE (High Density Polyethylene) material.
- This project is unique in the sense that all the electrical equipment including inverter, transformer, HT panel and SCADA (supervisory control and data acquisition) are also on floating ferro cement platforms.
- The anchoring of this system is bottom anchoring through dead weight concrete blocks.

Significance

- With the presence of floating solar panels, the evaporation rate from water bodies is reduced, thus helping in water conservation.
- Approximately 32.5 lakh cubic meters per year water evaporation can be avoided. The water body underneath the solar modules helps in maintaining their ambient temperature, thereby improving their efficiency and generation.
- Similarly, while coal consumption of 1,65,000 Tons can be avoided per year; Co2 emission of 2,10,000 tons per year can be avoided.

Federation Internationale de Football Association (FIFA) Under 17 Women's World Cup 2022

In News

The Union Cabinet chaired by the Prime Minister Shri Narendra Modi has approved the Signing of Guarantees for hosting Federation Internationale de Football Association (FIFA) Under 17 Women's World Cup 2022 in India.

FIFA U-17 World Cup

- FIFA U-17 Women's World Cup 2022 is scheduled to be held in India between 11th and 30th October 2022.

- The seventh edition of the biennial youth tournament will be the first-ever FIFA women's competition to be hosted by India.
- It would encourage more youngsters to participate in sports and help develop the sport of football in India.
- The event will not only promote football as sport of choice among Indian girls, but is also poised to leave a lasting legacy that will facilitate girls and women in the country to embrace football and sports in general.

Background
- The event started in 2008 and is traditionally held in even-numbered years.
- The 6th edition of the event was held in Uruguay from 13th November to 1st December, 2018.
- Spain is the current champion of FIFA Under-17 Women's World Cup.
- FIFA U-17 Women's World Cup India 2022 will be the 7th edition of the tournament in which 16 teams, including India, will participate.

Financial outlay:
Financial outlay of Rs. 10 crore assistance to All India Football Federation (AIFF) for Field of play Maintenance, Stadium power, Energy & Cabling, Stadia & Training Site Branding etc. will be met from the budgetary allocation for the Scheme of Assistance to National Sports Federations (NSFs).

Objectives of the Scheme:
- The FIFA U-17 Women's World Cup India 2022 has potential to strengthen women's football in the country.
- increase representation of women in football leadership and decision-making bodies
- inspire more girls to play football in India
- advocate for gender-inclusive participation by normalising the concept of equal game from a young age
- opportunity to improve football standards for women in India
- improve the commercial value of the women's game.

PM declares 44th Chess Olympiad open

In News
The Prime Minister, Shri Narendra Modi declared open the 44th Chess Olympiad at JLN Indoor Stadium, Chennai.

44th Chess Olympiad
- The 44th Chess Olympiad has been a tournament of many firsts and records.
- This is the first time the Chess Olympiad is being held in the place of origin of chess, India.
- It is coming to Asia for the first time in 3 decades. It has the highest ever number of countries participating.
- It has the highest ever number of teams participating. It has the highest number of entries in the women's section.
- The first ever Torch Relay of the Chess Olympiad started this time.

Background
- The 44th Chess Olympiad is being held in Chennai from July 28 to August 9, 2022.
- The prestigious competition, which has been organised since 1927, is being hosted in India for the first time and in Asia after 30 years.
- With 187 countries participating, this will be the largest participation in any Chess Olympiad.
- India is also fielding its biggest contingent in the competition comprising 30 players across 6 teams.

Torch Relay
- The Prime Minister also launched the first-ever Chess Olympiad Torch Relay at the Indira Gandhi National Stadium in New Delhi on June 19, 2022.
- The torch travelled to 75 iconic locations in the country for over 40 days, traversing close to 20,000 kilometres and culminating in Mahabalipuram, before heading to the FIDE Headquarters, Switzerland.

The Asia Pacific Sustainability Index 2021

In News
The Asia Pacific Sustainability Index 2021 was recently launched by Knight Frank, which is a Global property consultant.

Major Findings
- In the index, four Indian cities viz., Bengaluru, Hyderabad, Delhi, and Mumbai, have been ranked among top 20 sustainable cities.
- In it, 36 cities were ranked on the basis of urbanisation pressure, carbon emissions, climate risk, and government initiatives.
- Index has been topped by Singapore.
- It is followed by Sydney, Wellington, Perth, and Melbourne.
- These are the top five green-rated cities in commercial real estate in Asia-Pacific region.
- Bengaluru is the only Indian city to achieve 'Gold' standard category.
- Bengaluru is followed by Delhi, which has been ranked 17th in the ASIA Pacific Region.
- Hyderabad has been ranked 3rd in India and 18th in Asia-Pacific region.
- Mumbai is ranked 4th among Indian cities and 20th in Asia-pacific region.

IPBES report on Wild Species

In News
Intergovernmental Science-policy platform on Biodiversity and Ecosystem Service (IPBES) released its report on the sustainable use of wild species of plants, animals, fungi and algae around the world.

Major findings
- Major impact is through Climate change, landscape and seascape changes, pollution and invasive alien species impact
- **Unsustainable exploitation**: It is the main threat to wild species in marine ecosystems and the second greatest threat to those in terrestrial and freshwater ecosystems.
- Unsustainable hunting is the main threat to wild mammal species.
- Unsustainable logging and gathering are one of the main threats for several plant groups, notably cacti, cycads, and orchids as well as other plants and fungi harvested for medicinal purposes.
- **On livelihood**: Small-scale fisheries support over 90% of the 120 million people and about half of the people involved in small-scale fisheries are women.
- The report finds that 34% of marine wildlife is overfished.
- 50,000 wild species globally can meet the needs of billions of people.
- 70 per cent of the world's poor population was directly dependent on wild species.
- **On indigenous people**: Sustainable use of wild species is central to its identity, existence and livelihood.

IPBES

- It is an independent intergovernmental body, established by member States in 2012, with the objective to strengthen the research, evidence-based policy making for the conservation and sustainable use of biodiversity.
- The work of IPBES works include: – Assessments, Policy Support, Building Capacity & Knowledge
- **Secretariat**: Bonn, Germany.

Global Platform for Disaster Risk Reduction 2022

In News

- The **Global Platform for Disaster Risk Reduction, 2022 (GP 2022)** took place in Indonesia from May 23-28, 2022.
- The theme this year was **'From Risk to Resilience: Towards Sustainable Development For All in a COVID-19 Transformed World**'

Indigenous practices have used traditional knowledge, alongside modern techniques, to help manage disaster risk:

- Cultural burning (Ancient Australian technique to reduce bushfire): Controlled fires in small areas burn, reducing undergrowth and dead wood while preserving larger trees and allowing wildlife to escape
- Natural flood management(age-old traditional forecasting and flood-prevention methods to limit the risks of seasonal flooding in Nepal and the Tibetan Plateau):These include planting flood-resistant crops and digging drainage ditches and moats.
- Community-based early warning systems using environmental indicators: Observations of changes in cloud shapes, rainfall patterns, fauna activity, wind velocity, star positions and temperatures help anticipate floods and trigger preparations to minimize their impacts.
- Traditional remedies after flooding – like using green coconut milk to treat diarrhoea, cholera and dysentery – help with recovery, alongside any modern medical treatments that might be available.
- Safe areas(In Sulawesi, Indonesia, the Kailli communities have passed on historical knowledge of natural hazards): Folksongs recount past experiences of disasters and pass on lessons learnt from predecessors about a range of hazards and their causes: tsunamis, earthquakes, and ground liquefaction resulting from earthquakes.
- The villages include safe areas, known as '**Kinta'**, which have always been used as refuges during seismic events.

NITI Aayog's India Innovation Index 2021

In News

Karnataka, Manipur and Chandigarh have topped in their respective categories in the third edition of NITI Aayog's India Innovation Index.

Major Highlights

- Karnataka has topped again in the 'Major States' category, Manipur is leading the 'North East and Hill States' category and Chandigarh is the top performer in the 'Union Territories and City States' category.
- The index was released by NITI Aayog Vice Chairman Suman Bery.

About Indian Innovation Index

- Prepared by NITI Aayog and the Institute for Competitiveness, the India Innovation Index is a comprehensive tool for the evaluation and development of the country's innovation ecosystem.

- It ranks the states and the union territories on their innovation performance to build healthy competition amongst them.
- The third edition highlights the scope of innovation analysis in the country by drawing on the framework of the Global Innovation Index.
- The number of indicators has increased from 36 (in the India Innovation Index 2020) to 66 (in the India Innovation Index 2021).
- The indicators are now distributed across 16 sub-pillars, which, in turn, form seven key pillars.
- The India Innovation Index also contributes to the Government's effort to monitor select global indices through the Global Indices to drive Reform and Growth (GIRG) mechanism, for which the NITI Aayog is the nodal organization.
- Innovation is the key to sustainable and inclusive growth.
- It can help us solve the biggest challenges of our times: bringing millions out of poverty, generating livelihood opportunities, and paving the way for an Aatmanirbhar Bharat.

India Innovation Index 2021

In News
- As per NITI Aayog's India Innovation Index 2021, gross expenditure on research and development (R&D) in India is lowest in the world.
- India spends USD 43 per capita on R&D. India Innovation Index was recently released by NITI Aayog.

Major Findings
- India needs to increase this expenditure, in order to be on a par with the BRICS or ASEAN countries.
- Russia spends USD 285 per capita, Brazil spends USD 173 while Malaysia spends USD 293, on the R&D.
- Gross expenditure on R&D (GERD) in India, as a percentage of GDP has remained consistent on 0.7% for about a decade.
- India's expenditure is lower as compared to Brazil (1.16%) and South Africa (0.83%).
- Only Mexico (0.31%) had a lower share of GERD as percentage of GDP, than India.
- Despite low expenditure on R&D, India has published more research papers as compared to countries like Russia, Brazil, and South Korea.