



SIVARAJAVEL IAS ACADEMY

SANGAMAM

Monthly Current Affairs for TNPSC

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NATIONAL YOUTH DAY

12th JANUARY

"Arise , awake and don't stop until the goal is reached."

- SWAMI VIVEKANANDA



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Tamil Nadu to introduce mental health programme in govt schools

- In order to address mental health issues among adolescent children in government and government-aided schools, a comprehensive programme will be launched in Chennai, Kancheepuram, Tiruvallur and seven other districts on a pilot basis from this month.
- The four-year programme, following the pilot study, will be extended throughout TN from next year.
- Students in Classes IX to XII will be screened and taught relaxation techniques, life skill training, games and if needed, given professional counselling. Teachers will also be trained on handling students with behavioural issues.
- Teachers experience high levels of stress which can have a negative impact in classroom.
- The programme will include workplace wellness programmes for teachers and to mentor them.
- Students will be screened before they are enrolled. “The aim is to ensure that every child receives access to school counselling services under which they will be taught physical exercise and arts among other things.”

Global Tamil Angels platform

- The Global Tamil Angels platform was launched on Monday at the “Global Startup Investors Summit,” co-organized by the Tamil Nadu Startup and Innovation Mission and FeTNA International Tamil Entrepreneur Network.
- The platform, hosted by StartupTN, allows Tamil Nadu-based start-ups to connect with potential investors from the global Tamil diaspora.

Global Investors’ Meet (GIM)

- Tamil Nadu government will host the 3rd edition of the Global Investors’ Meet (GIM) on January 10 and 11, 2024 with the participation of over 100 countries as part of the state’s efforts to achieve the dream of \$1 trillion economy by 2030.

TN awarded best-performing state for implementation of health schemes

- Tamil Nadu has been awarded the Best Performing State for implementing the Rashtriya Bal Swasthya Karyakram (RBSK) programme, School Health and Wellness Ambassador Programme Scheme and Best Menstrual Hygiene Campaign Award.
- The awards were announced during the “Workshop on School Health and Wellness Ambassador Programme” conducted on January 16-17 in New Delhi by the Union Health Ministry.
- The State was awarded Best Converging Mechanisms Award for the National Health Mission in implementing these programmes in convergence with the School Education department” through the Directorate of Public Health and Preventive Medicine.

Tamil Nadu to set up modern turtle conservation centre

- In a biggest and most comprehensive step yet to conserve turtle population along the Tamil Nadu coast, the state government has announced setting up of a Turtle Conservation and Rehabilitation Centre at a cost of Rs 6.3 crore.



- It will build an information network to curb poaching of turtles and identify turtle nesting areas on Tamil Nadu coast.
- It will also study turtle migratory routes using conventional flipper tagging, molecular genetics- and satellite telemetry.

Tamil Nadu Emerging Sector Seed Fund (TNESSF)

- Tamil Nadu Emerging Sector Seed Fund (TNESSF) is a Government of Tamil Nadu initiative that has been established with the objective to invest in start-ups and undertakings in the sunrise/ emerging

sectors.

- Its purpose is to identify and invest in “bankable” start-ups & emerging sector companies to add alpha to the business in the form of financial and non-financial support.

Chief Minister on Field Study

- Chief minister M K Stalin - will launch a new project titled, ‘chief minister on field study’ from February 1.
- The field study will review the implementation of various development and welfare schemes of the government and functioning of the administrative machinery in all districts of the state.
- Under the new initiative, the CM, along with his cabinet colleagues, government secretaries and heads of the departments will visit all districts.





What is the Finance Commission?

The Central government will soon start off the process to set up the Sixteenth Finance Commission, with the Finance Ministry likely to notify the terms of references for the Finance Commission.

ABOUT

About Finance Commission:



- It is a constitutional body for giving recommendations on distribution of tax revenues between the Union and the States and amongst the States themselves.

- Who constitutes?

The Finance Commission is constituted by the President under article 280 of the Constitution.

- It is constituted at the end of every fifth year or earlier, as the deemed necessary by the President.
- Parliament may by law determine the requisite qualifications for appointment as members of the Commission and the procedure of their selection. On account of this, The Finance Commission (Miscellaneous Provisions) Act, 1951 was passed.

Assets under management (AUM)

Life Insurance Corporation of India (LIC) recently said its exposure to the Adani Group was less than 1% of the total assets under management (AUM) at book value.

ABOUT

About Assets under management (AUM):

- What is it? AUM is the total market value of investments a financial institution (such as a bank, mutual fund, or hedge fund) owns or manages on behalf of its clients.
- AUM can be calculated in different ways, depending on the firm's discretion.
- The calculation is done on the basis of either the total capital that the firm handles or

calculating the Individual client's money.

- AUM fluctuates daily reflecting the variable returns from stocks, mutual funds and change in prices of fixed investment.

Importance of AUM:

- AUM helps to build the market value of the firm.
- It can be used as a market tool to attract potential new customers. The higher a firm's AUM is, the more likely people are to trust them and invest with them.
- A fund's management fees and expenses are often calculated as a percentage of AUM.

D4 Drone system

The D4 anti-drone system which was used for security during the Republic Day parade is one of the products to be showcased at Aero India 2023.

Key facts about D4 Drone system:

- What is it? The Drone Detect, Deter and Destroy system (D4S) is the first indigenously developed anti-drone system to be inducted into the Indian Armed Forces.
- It is developed by Defence Research and Development Organisation (DRDO) and manufactured by Bharat Electronics Limited (BEL).
- Purpose: To detect rogue drones that are likely to attack most vulnerable places.

Features:

- D4 system can instantly detect and jam micro drones (Soft kill) and use a laser-based kill mechanism to terminate targets (Hard kill).
- It uses DRDO's RF/Global Navigation Satellite System (GNSS) to detect the frequency which is being used by the controller and the signals are then jammed.
- It can detect and jam micro-drones at a distance of up to 3 km.
- It can lase a target 1-1.25 km far depending on the wattage of the laser weapon.

About Aero India:

- It is a biennial air show and aviation exhibition held in Bengaluru, India at the Yelahanka Air Force Station.
- It is organised by the Defence Exhibition

Organisation, Ministry of Defence

Justice Rohini Commission

The Justice G. Rohini-led commission for the sub-categorisation of other backward classes (OBCs) was recently given another extension in its tenure by the President.

About Rohini Commission:

- The commission was set up by the President under Article 340 of the Indian Constitution on October 2, 2017.
- It is headed by former Delhi High Court judge, Justice G. Rohini (retd).
- Mandate: To examine the issues related to the sub-categorisation of Other Backward Classes.
- Terms of References:
 - to examine the extent of inequitable distribution of benefits of reservation among the castes or communities included in the broad category of Other Backward Classes, with reference to such classes included in the Central List;
 - to work out the mechanism, criteria, norms and parameters in a scientific approach for sub-categorisation within such Other Backward Classes;
 - to take up the exercise of identifying the respective castes or communities or sub-castes or synonyms in the Central List of Other Backward Classes and classifying them into their respective sub-categories.

What does Article 340 say?

- The Article reads, "The President may, by order, appoint a Commission consisting of such persons as he thinks fit to investigate the conditions of socially and educationally backward classes within the territory of India and the difficulties under which they labour and to make recommendations as to the steps that should be taken by the Union or any State to remove such difficulties and to improve their condition..."

Grievance Appellate Committee

Recently, The Grievance Appellate Committees (GACs) were set up by the central government to look into user complaints against large social media companies such as Facebook, Twitter and Instagram.

About Grievance Appellate Committee

- The central government notified three Grievance Appellate Committees (GACs) under an amendment to IT Rules 2021.
- Composition
- Each of the three GACs will have a

chairperson, two whole-time members from various government entities and retired senior executives from the industry.

- Term: Three years from the date of assumption of office.
- The GAC will be a virtual digital platform that will operate only online and the digitally entire process, from the filing of an appeal to the decision, will be conducted digitally.
- Users will have the option to appeal against the decision of the grievance officer of the social media intermediaries and other online intermediaries before this new appellate body.
- The Committee will endeavour to address the user's appeal within 30 days.

National Logistics Portal (marine)

Recently, the Union Minister for Ports, Shipping and Waterways inaugurated The National Logistics Portal (marine) in New Delhi.

About National Logistics Portal Marine:

- The National Logistic Portal (marine) (NLP) is a project of national importance, as envisaged by the Ministry of Ports Shipping Waterways and the Ministry of Commerce & Industry.
- Aim: To use IT to connect all logistics community stakeholders, to improve efficiency and transparency by reducing costs and time delays and achieving easier, faster, and more competitive service offerings.

Key features of the Portal

- NLP will serve as a single point of contact for all logistics trade processes across the country, including all modes of transportation via waterways, roads, and airways.
- It is envisaged that many standalone applications, developed by multiple vendors, users, and other stakeholders will integrate with NLP Marine through appropriate curation.
- It also enables digital transactions for payments required for the clearance processes such as Port charges, CFS charges, shipping line charges, transportation charges.

National Centre for Polar and Oceanic Research (NCPOR)

A recent study by the NCPOR revealed that the Antarctic sea ice (South Pole) reached its lowest level ever recorded in the summer of 2022.

About National Centre for Polar and Oceanic Research (NCPOR):

- It is an autonomous research institute under the Ministry of Earth Sciences (MoES) established in 1998.
- NCPOR is tasked with planning and executing polar expeditions and scientific research in Antarctica, Arctic, Himalayas and Southern Ocean.
- NCPOR is the nodal agency for planning, promoting, coordinating, and executing the entire gamut of polar and southern ocean scientific research in the country and the associated logistics activities.
- It also undertakes research on some of the country's strategically vital projects like mapping of Exclusive Economic Zone (EEZ), continental shelf margins and the Deep Ocean Mission.
- The Center maintains a Research Advisory Committee (RAC) to help guide and concentrate the research activities.
- It is located in Vasco da Gama, Goa, and was formerly known as the National Center for Antarctic and Ocean Research (NCAOR).

Motor Vehicle Act of 1988

The Delhi High Court has given the Central government a six months timeline to enforce the provisions of the Motor Vehicles Act that provide for a grant of compensation to road accident victims, even if the errant vehicle is uninsured, as well as in hit-and-run cases.

About the Motor Vehicle Act of 1988:

- It is a comprehensive Act that has replaced the Motor Vehicle Act, 1939.
- It was implemented on 1st July 1989.
- The act covers all aspects of road transport vehicles, such as registration, licensing, regulation, claims, compensation in case of accident etc.
- The act regulates all cases related to Motor Accidents all over India.
- An person injured in a motor accident or legal representatives of a person deceased in a motor accident can apply for compensation under Motor Vehicles Act, 1988.
- The act was amended in 2019 and 2022. Both these amendments deal with third-party insurance and claims management, including filing claims with the Motor Accident Claim Tribunal.

Motor Accident Claim Tribunal:

- It was created by the Motor Vehicles Act, 1988.
- It has been constituted to provide speedier remedy to the victims of accidents by motor vehicles.

- There is no time limit for filing motor vehicle accidents claims.
- A State Government can constitute one or more Motor Accidents Claims Tribunals.
- Civil Courts do not have jurisdiction in the matters which concerns the Motor Accidents Claims Tribunal.
- The appeals against the Claims Tribunals will lie before the High Courts.
- The appeal is limited by time and has to be filed in the High Court within 90 days from the date of award of the Claims Tribunal.

National Digital University (NDU)

During the Education ministers session of 'Voice of Global South' summit held recently, Indian Union minister of Education talks about establishing a National Digital University, which will transform access to higher education drastically reducing all direct and opportunity costs

Why in News:

- The UGC Chairman recently revealed the framework of India's first-ever National Digital University (NDU) as envisioned under the National Education Policy, 2020.

About National Digital University NDU:

- What is it? The Central Government in its Budget 2022-23 announced the establishment of a digital university that provides access to students for world-class quality universal education with personalized learning experiences at their doorsteps.

Structure of NDU:

- The institution will function under a hub-and-spoke model, which is where one product is delivered to various stakeholders from a central location.
- The digital content for various courses will be hosted on the Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM) platform.
- The IT and administrative services will be provided through the government's Samarth portal.

Indus Water Treaty

India recently issued a notice to Pakistan for modification of the Indus Waters Treaty (IWT).

About Indus Water Treaty:

- It was signed in September 1960 between India and Pakistan.
- The treaty was brokered by the World Bank, which too is a signatory to the treaty.
- The treaty fixed and delimited the rights

and obligations of both countries concerning the use of the waters of the Indus River system.

- It gives control over the waters of the three “eastern rivers” -- the Beas, Ravi, and Sutlej -- to India, while control over the waters of the three “western rivers” -- the Indus, Chenab, and Jhelum -- to Pakistan.
- The treaty allows India to use the western river waters for limited irrigation use and unlimited non-consumptive use for such applications as power generation, navigation, floating of property, fish culture, etc.
- It lays down detailed regulations for India in building projects over the western rivers.

National Level Multistate Cooperative Export Society

Nano fertilizers produced by Indian Farmers Fertiliser Cooperative Limited (IFFCO) and dairy products from Amul will be among the first few products that are expected to be exported by the first-ever National Export Cooperative Society that was approved by the Union Cabinet recently.

- The Union Cabinet, recently approved the setting up of a National Level multistate cooperative export society under the Multi State Cooperative Societies (MSCS) Act, 2002.

About National Level multistate cooperative export society:

- This will be the largest of the three proposed national cooperative societies to be established under the Multi State Cooperative Societies (MSCS) Act, 2002. Other being National multi-state cooperative organic society; and national level multi-state seed cooperative.
- It will act as an umbrella organization for export of surplus goods/services produced by various cooperative societies across the country.
- It will also help cooperatives in getting benefits of various export related schemes and policies.
- The society will have an authorized share capital of ₹2,000 crore with the area of operation all over the country.
- It will have its registered office in Delhi.
- It will open foreign bank accounts and complete all the formalities, including necessary permissions for exporting a product.
- Dividends will be shared with the manufacturer instantly and without any brokerage fee.

Hakku Patra

The Prime Minister recently launched the ‘Hakku Patra’ (land title deed) distribution drive by distributing title deeds (hakku patra) to about fifty thousand beneficiaries of newly declared revenue villages in Kalaburagi, Karnataka

What is Hakku Patra?

- The word ‘Hakku’ means “the right”, and ‘Patra’ means a “paper” or “document”.
- It is a legal document that states an individual’s rightful inheritance of a property.
- It is issued to the nation’s underprivileged section, including scheduled castes, scheduled tribes, urban slum dwellers, handicapped, and other disadvantaged populations.
- In most cases, the land on which the Hakku Patra is issued is government-owned with a specific set of conditions attached.

Hakku Patra distribution drive:

- It is a part of the Ambedkar Rural Housing Scheme of Karnataka.
- Under this, the government offers free registration of Hakku Patra land in the beneficiary’s name.
- Any house built on the Hakku Patra land should be used as the beneficiary’s house and not for rental purposes.

Benefits of Hakku Patra:

- It makes you the legitimate owner of your land or property by giving an up-to-date and official record of who owns the land.
- It is a state-guaranteed document.
- The title deeds enable owners to avail of bank loans with the said document.
- Hakku Patra registration resolves all types of disputes regarding the ownership or rights over the land.
- The document helps in preventing any encroachment via trespassing on the boundaries.

Ken-Betwa Link Project

- Recently, the Third Meeting of the Steering Committee of the Ken-Betwa Link Project (SC-KBLP) was held under the Chairmanship of the Secretary, DoWR, RD & GR, Ministry of Jal Shakti.

About Ken-Betwa Link Project:

- Under this, the transfer of excess water from the River Ken to the Betwa basin through the use of a concrete canal is proposed.
- It is the first project under the National Perspective Plan for the interlinking of rivers.
- It aims to provide irrigation to the Bundelkhand region, which is one of the

worst drought-affected areas in India.

- A Tripartite Memorandum of Understanding was signed between the Centre and the governments of UP and MP for the project.
- Implementing Agency: A Special Purpose Vehicle (SPV) called Ken-Betwa Link Project Authority (KBLPA) will be set up to implement the project.
- The National Interlinking of Rivers Authority (NIRA) has the power to set up SPV for individual link projects.

Basmati Rice

Recently, For the first time in the country, the Food Safety and Standards Authority of India (FSSAI) has specified the identity standards for Basmati Rice.

- As per these standards, Basmati rice shall possess natural fragrance characteristics of basmati rice and be free from artificial colouring, polishing agents and artificial fragrances.
- It was issued to Brown Basmati Rice, Milled Basmati Rice, Parboiled Brown Basmati Rice and Milled Parboiled Basmati Rice.
- The standards are aimed at establishing fair practices in the trade of Basmati rice and protecting consumer interest, both domestically and globally. These standards will be enforced from 1st August 2023.

Uniqueness of Basmati Rice

- It is cultivated in the Himalayan foothills of the Indian sub-continent and is universally known for its long grain size, fluffy texture and unique inherent aroma and flavour.

What are the Climatic conditions required for rice cultivation?

- Temperature: Between 22-32°C with high humidity.
- Rainfall: Around 150-300 cm.
- Soil Type: Deep clayey and loamy soil.
- Top Rice Producing States: West Bengal > Punjab > Uttar Pradesh > Andhra Pradesh

National Centre for Good Governance

Recently, Director General, National Centre for Good Governance (NCGG), Government is working in Mission Mode to achieve 100% saturation of all Central Schemes having a huge socio-economic bearing on the common man.

What is National Centre for Good Governance?

- It is an autonomous institute under the aegis of the Department of Administrative Reforms and Public Grievances, Government of India.
- It has been set up to assist in bringing about governance reforms through studies,

- It seeks to carry out policy-relevant research and prepare case studies
- It curates training courses for civil servants from India and other developing countries;
- It provides a platform for sharing existing knowledge and proactively seeking out and developing ideas for their implementation in the government, both at the National & International levels.
- It is governed by a Governing Body, under the Chairmanship of the Cabinet Secretary.

National Green Hydrogen Mission

Recently, The Union Cabinet, chaired by the Prime Minister of India, has approved National Green Hydrogen Mission.

About National Green Hydrogen Mission:

- The initial outlay for the Mission will be Rs.19,744 crore, including an outlay of Rs.17,490 crore for the SIGHT programme, Rs.1,466 crore for pilot projects, Rs.400 crore for R&D, and Rs. 388 crores towards other Mission components.
- Aim: To make India a Global Hub for the production, utilization and export of Green Hydrogen and its derivatives.
- Ministry of New and Renewable Energy will formulate the scheme guidelines for implementation of the respective components.

What are the components of the scheme?

- The Strategic Interventions for Green Hydrogen Transition Programme (SIGHT): Under this two distinct financial incentive mechanisms will be provided
- Targeting domestic manufacturing of electrolyzers and
- Production of Green Hydrogen
- The Mission will also support pilot projects in emerging end-use sectors and production pathways.
- Regions capable of supporting large-scale production and/or utilization of Hydrogen will be identified and developed as Green Hydrogen Hubs.
- A public-private partnership framework for R&D (Strategic Hydrogen Innovation Partnership – SHIP) will be facilitated under the Mission.
- A coordinated skill development programme will also be undertaken under the Mission.

What is Green hydrogen?

- It is the gas produced by splitting water into hydrogen and oxygen using an electrolyzer that may be powered by electricity generated from renewable energy sources.



International Financial Architecture Working Group meet

The first International Financial Architecture Working Group meeting of G-20 under the chairmanship of India will be held in Chandigarh on 30-31 January 2023.

About International Financial Architecture Working Group

- This G-20 finance track focuses on strengthening international financial architecture.
- It will also aim to address various challenges faced by vulnerable countries.
- Around 100 delegates from G-20 member nations, invited countries and international organizations will participate in the two-day meeting.
- Discussions during the two-day meeting will be jointly moderated by the Ministry of Finance and the Reserve Bank of India, as well as by the co-chairs of the International Financial Architecture Working Group, - France and South Korea.
- The meeting will also focus on finding ways to maximize aid to poor and vulnerable countries.

What is the Organisation for the Prohibition of Chemical Weapons (OPCW)?

Recently OPCW blamed Syria gov't for 2018 chlorine gas attack in Douma

About Organisation for the Prohibition of Chemical Weapons (OPCW):

- It is the implementing body of the Chemical Weapons Convention (CWC).
- Mission: To implement the provisions of the Chemical Weapons Convention (CWC) in order to achieve the OPCW's vision of a world that is free of chemical weapons and of the threat of their use, and in which cooperation in chemistry for peaceful purposes for all is fostered.
- Its headquarters are located in The Hague, Netherlands.
- The OPCW receives states-parties' declarations detailing chemical weapons-related activities or materials and relevant industrial activities.
- The OPCW is authorized to perform inspections to verify that signatory states

are complying with the convention.

- It also performs testing of sites and victims of suspected chemical weapons attacks.
- OPCW reports on its inspections and other activities to the UN through the office of the secretary-general.
- The OPCW was awarded the Nobel Peace Prize in 2013

Chemical Weapons Convention (CWC):

- It is a multilateral treaty that bans chemical weapons and requires their destruction within a specified period of time.
- It entered into force on April 29, 1997.
- The CWC requires states-parties to declare in writing to the OPCW their chemical weapons stockpiles, chemical weapons production facilities (CWPFs), relevant chemical industry facilities, and other weapons-related information.
- The CWC is open to all nations and currently has 193 states-parties.

Lake Chad Basin

According to a report published by Refugees International, shrinking natural resources due to adverse weather are raising tensions across communities and displacing people of the Lake Chad region

About Lake Chad Basin

- Lake Chad is located in the Sahel, the vast semi-arid region south of the Sahara desert.
- It is bordered by 4 countries - Chad, Cameroon, Niger and Nigeria.
- Source of the Lake: It is fed mainly by the Chari River through the Lagone tributary.
- The Lagone tributary used to provide 90 % of its water.
- Significance of the Lake: The Lake is vital for indigenous, pastoral and farming communities in these countries.
- The lake has been supporting drinking water, irrigation, fishing, livestock and economic activity for over 30 million people in the region.
- The Lake Chad basin in west and central Africa covers 8% of the African continent and is home to 42 million people.

What are Issues in the Lake Basin Region?

- Lake Chad has shrunk by 90% in 60 years, and climate change is a significant contributor.

- A 13-year insurgency of the Boko Haram extremist group and other militant groups has destabilized the Lake Chad basin and the wider Sahel region.

G20-Chief Science Advisers Roundtable

Recently, the planning meeting of the G20-Chief Science Advisers Roundtable (G20-CSAR) was held online mode, to discuss the agenda topics and planning for the proposed high-level roundtables.

About the G20-Chief Science Advisers Roundtable

- It is a government-to-government level initiative conceptualised through India's G20-Presidency.
- It will be an effective platform to discuss and achieve solutions to some of the long pending as well as anticipated issues related to scientific research, technology development and deployment.
- Under this initiative, the Chief Science Advisers and their equivalents of G20 member countries, as well as the invited countries will discuss and develop collaborative frameworks for all involved countries.
- This initiative will also help in establishing an effective and coherent global science advice mechanism.
- The two high-level G20-CSAR meetings will be organised – the 1st G20-CSAR during 26-28 March 2023 at Hyderabad and the 2nd G20-CSAR during 27-29 Aug 2023 at Bengaluru.

What is Trans Fat?

According to a recent report by the World Health Organization (WHO), five billion people globally are exposed to harmful trans fat, which is increasing their heart disease and death risk.

About Trans fat

- Trans fat, or trans-fatty acids, are unsaturated fatty acids that come from either natural or industrial sources.
- Naturally-occurring trans-fat comes from ruminants (cows and sheep).
- Industrially-produced trans-fat is formed in an industrial process that adds hydrogen to vegetable oil converting the liquid into a solid, resulting in “partially hydrogenated” oil (PHO).
- Partially hydrogenated oils (PHO) are solid at room temperature and prolong the shelf life of products. They are primarily used for deep frying and as an ingredient in baked goods.

What are the Initiatives taken to reduce trans-fat intake?

- National Level: Foods Standards and Safety Authority of India (FSSAI) launched a “Trans Fat-Free” logo for voluntary labelling to promote TFA-free products.
- Global Level: World Health Organisation launched a REPLACE campaign in 2018 for global-level elimination of trans-fats in industrially produced edible oils by 2023.

13th Amendment to the Constitution of Sri Lanka

India's External Affairs minister during a recent visit to Sri Lanka expressed India's “considered view” with the Sri Lankan President that the full implementation of the 13th Amendment was “critical” for power devolution.

What is 13th Amendment to the Constitution of Sri Lanka:

- It is an outcome of the India-Sri Lanka Peace Accord of July 1987, signed by the then Prime Minister Rajiv Gandhi and President J.R. Jayawardene.
- It was an attempt to resolve Sri Lanka's ethnic conflict that had aggravated into a full-fledged civil war, between the armed forces and the Liberation Tigers of Tamil Eelam.
- The 13th Amendment, led to the creation of Provincial Councils.
- It assured a power sharing arrangement to enable all nine provinces in the country, including Sinhala majority areas, to self-govern.
- Subjects such as education, health, agriculture, housing, land and police are devolved to the provincial administrations.
- It made Tamil one of Sri Lanka's official languages and English, a link language.
- The amendment has never been fully implemented because of the overriding powers given to the President.

India International Science Festival 2022

The 8th edition of the India International Science Festival (IISF) was recently inaugurated at the Maulana Azad National Institute of Technology (MANIT), Bhopal.



About India International Science Festival:

- It is an initiative of the Ministry of Science and Technology and Ministry of Earth Science of Government of India in association with Vijnana Bharati which is a science movement with Swadeshi spirit led by eminent scientists of the country.
- It is a festival to celebrate the achievements of India's scientific and technological advancements with students, innovators, craftsmen, farmers, scientists and technocrats from India and abroad.
- ISF provides opportunities to people and scientific fraternity in the country and abroad to come together and work together.

IISF 2022:

- Location: Bhopal, Madhya Pradesh.
- It is the eighth edition since its inception in 2015.
- Theme: 'Marching towards Amrit Kaal with Science, Technology, and Innovation'
- IISF 2022 is a four day festival and will feature 14 thematic events.

Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)?

Recently, a meeting of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) Joint Working Group on Counter Terrorism and Transnational Crime was hosted by the Government of India in New Delhi.

Why in News?

- The meeting discussed traditional and emerging non-traditional security threats in the BIMSTEC region.
- The working group on counter-terror deals with a few key realms of policy. These include
 - Intelligence Sharing
 - Legal and Law Enforcement
 - Countering Radicalization and Terrorism
 - Anti- Money Laundering and Combating the Financing of Terrorism
 - Human Trafficking
 - Narcotic Drugs, Psychotropic Substances and Precursor Chemicals,

Key facts about BIMSTEC?



- The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation is a regional grouping started in 1997.
- Member countries: Bangladesh, India, Myanmar, Sri Lanka, Thailand, Bhutan and Nepal
- This group was launched by signing the Bangkok Declaration.

World Spice Congress 2023

Recently, the Secretary to the Spices Board of India said that World Spice Congress 2023 will be held in Mumbai from 16-18 February 2023.

About World Spice Congress:

- It was planned and conceived in 1990 as a forum for discussion and interaction between the importers and exporters of spices.
- Since its inception it has been Organized under the leadership of the Spices Board, Ministry of Commerce and Industry, Government of India.

What are the key facts about the World Spice Congress (WSC) 2023?

- What is the Theme?: VISION 2030: S-P-I-C-E-S (Sustainability, Productivity, Innovation, Collaboration, Excellence and Safety).
- Policymakers, regulatory authorities, spice trade associations, government officials as well as technical experts from key G20 countries will participate in the event.
- Maharashtra has been chosen as a venue because
 - It is one of the leading states producing spices. It is the largest producer of turmeric in India. Maharashtra produces two GI-tagged turmeric varieties and one GI-tagged chilli variety. Coastal areas of Maharashtra are also known for the production of GI-tagged Kokum.

What is the Spices Board of India?

- Spices Board was constituted on 26th February 1987 under the Spices Board Act 1986 with the merger of the erstwhile Cardamom Board (1968) and Spices Export Promotion Council (1960).
- It is functioning under the Ministry of Commerce & Industry.
- It is responsible for the export promotion of the 52 scheduled spices and the development of Cardamom (Small & Large).
- Main Functions
 - Research, Development and Regulation of domestic marketing of Small & Large Cardamom
 - Post-harvest improvement of all spices

- Promotion of organic production, processing and certification of spices
- Development of spices in the North East
- Provision of quality evaluation services

Asian Pacific Postal Union (APPU)

India is set to take over leadership of the Asian Pacific Postal Union after successful elections held during the 13th Congress held in Bangkok.

Why in news?

- Dr Vinaya Prakash Singh, erstwhile Member (Personnel) of, the Postal Services Board will take over the charge of Secretary General of the Union for a tenure of 4 years.

What is APPU?

- Asian Pacific Postal Union (APPU) is an intergovernmental organization of 32 member countries of the Asian-Pacific region.
- It is the only Restricted Union of the Universal Postal Union (UPU) in the region, which is a specialized agency of the United Nations.
- Goal: To extend, facilitate and improve postal relations between member countries and to promote cooperation in the field of postal services.
- As the regional centre for various UPU projects, it also takes the lead in ensuring that all technical and operational projects of the UPU are fulfilled in the region so that the region is integrated into the global postal network in the best possible way.

1st Global Tourism Investors Summit

The Ministry of Tourism is organizing the 1st Global Tourism Investors Summit from 10th to 12th April 2023 at Pragati Maidan in New Delhi.

About 1st Global Tourism Investors Summit:



- It is organised under the aegis of India's G20 Presidency.
- The aim of the summit is to bring together global business leaders, and policymakers to understand and explore Tourism Business opportunities in India.
- The event focused on promoting India as an

investment destination for travel, tourism, and hospitality by identifying State-Specific investment possibilities and discuss avenues to promote sustainable tourism.

First G20 Health Working Group

The first G20 Health Working Group meeting under India's presidency was held in Thiruvananthapuram in Kerala.

About First G20 Health Working Group:

- Various discussions are being held focussing on international cooperation for Universal health care, in the three-day conference.
- Discussions on strengthening medical value travel enabling easy travel to countries with low cost treatment facilities and also on holistic health care through the integration of traditional methods of treatment like Ayurveda were held.

Three priorities for the G20 Health Track:

- Priority I: Health Emergencies Prevention, Preparedness and Response (with focus on One Health & AMR).
- Priority II: Strengthening Cooperation in Pharmaceutical Sector with focus on Access and Availability to safe, effective, quality and Affordable Medical Countermeasures (Vaccines, Therapeutics and Diagnostics).
- Priority III: Digital Health Innovations and Solutions to Aid Universal Health Coverage and Improve Healthcare Service Delivery.

History:

- The G20 Health Working Group (HWG) was established under the German Presidency in 2017 to develop a shared international agenda on issues such as strengthening health-care systems, reducing malnutrition, health-crisis management and scaling up the fight against pandemics.
- India assumed presidency of the G20 on 1st December 2022.
- India is currently part of the G20 Troika comprising Indonesia, India and Brazil, marking the first time that the troika is consisting of three developing and emerging economies.

G20 Global Partnership for Financial Inclusion (GPII)

Recently, the Ministry of Finance said that the first G20 Global Partnership for Financial Inclusion (GPII) meeting under G20 India Presidency is to be held from 9-11 January 2023 in Kolkata.

What is G20 Global Partnership for Financial Inclusion (GPII)?

- The meeting will be attended by G20 member countries, guest countries and

international organizations invited by India.

- It will focus on topics like digital financial inclusion, reducing remittance costs, and finance for the SME sector.
- The three-day event will feature symposiums, exhibitions and a domestic outreach programme on digital financial literacy involving over 1,800 school students.
- 12 international speakers will attend the G20 meeting. Institutions like NABARD will highlight the rural area coverage of innovative financial products and services.

G20's First Environment and Climate Sustainability Working Group (ECSWG)

G20's First Environment and Climate Sustainability Working Group (ECSWG) Meeting to be held from February 09-11, 2023 at Bengaluru.

About:

- The discussions at ECSWG will focus on the agenda 'Promotion of Blue Economy along with Coastal Sustainability', 'Restoration of Degraded Lands and Ecosystems' and 'Enhancement of Biodiversity' and 'Strengthening of Circular Economy'.
- It is to be hosted by Ministry of Environment, Forest and Climate Change (MoEF&CC).

Initiatives by Karnataka State Forest

Department:

- e- Parihara, an online application that helps in processing and sanction of ex-gratia claims in cases of man-animal conflicts; thus, bringing in transparency and efficiency in the processing of claims.
- e- Gastu an Android based platform captures forest patrolling/field activities undertaken by frontline staff of the forest department, which can be visualized by supervisory officers over satellite imageries, on regular basis.
- e- timber facility provides a near real time wood stock available in government timber depots and enables e-auction facilities for timber/ other forest produce in government timber depots.
- The Geo-Spatial Forest Information System developed by the Karnataka Forest Department is a unique platform which uses Remote Sensing and GIS technology and provides spatial database of all notified forest lands in the State, providing access to the forest land notifications, village maps, forest maps and digitised notified forest at cadastral level.
- The Forest Fire Management System is a comprehensive solution for planning,

mitigation and analysis of forest fire which provides forest fire risk zonation mapping, fire start vulnerability mapping, burnt area assessment along with a robust system for dissemination of active forest fire alerts to ensure that all fire incidences are addressed and mitigated in a time bound manner.

What is International North-South Transport Corridor (INSTC)?

- Recently, the Ministry of Ports, Shipping and Waterways, in association with India Ports Global Ltd, conducted a workshop on the 'Linking Chabahar Port with INSTC' in Mumbai.

Key facts about International North-South Transport Corridor:



- It is a multimodal transportation agreement formed with a trilateral agreement between India, Iran and Russia at the Euro-Asian Conference on Transport in 2000.
- It links the Indian Ocean to the Caspian Sea via the Persian Gulf onwards into Russia and Northern Europe.
- The corridor encompasses sea, road and rail routes.
- The main purpose of the corridor was to reduce carriage costs and transit time between India and Russia. The transit time is expected to reduce to almost half, once the corridor becomes fully functional.
- The agreement has been ratified by 13 countries namely, Azerbaijan, Belarus, Bulgaria, Armenia, India, Iran, Kazakhstan, Kyrgyzstan, Oman, Russia, Tajikistan, Turkey, and Ukraine.
- About Chabahar Port:
 - It is located off the Gulf of Oman in Iran's southeastern province of Sistan-Baluchistan & is the only Iranian port with direct access to the ocean.

G-20 Infrastructure Working Group

The first G20 Infrastructure Working Group (IWG) meeting under G20 India Presidency will take place in Pune, Maharashtra on 16th -17th January 2023.

About the G20 Infrastructure Working Group (IWG) meeting:

- The meeting will be joined by the IWG

member countries, guest countries and international organizations.

- The Department of Economic Affairs, Ministry of Finance, and Government of India will host the two-day IWG meetings, along with Australia and Brazil as the co-chairs.
- The first IWG meeting in Pune would be attended by 65 delegates across the G20 membership, invitee countries and International Organizations.
- Theme: Financing Cities of Tomorrow: Inclusive, Resilient and Sustainable.
- The theme will focus on various facets of making cities economic centres of growth, financing urban infrastructure, building future-ready urban infrastructure, directing fiscal investments for unlocking private financing for energy-efficient and environmentally sustainable infrastructure and mitigating social imbalances.

MAARG PLATFORM

The Union Commerce and industry minister will launch the mentorship, advisory, assistance, resilience and growth (MAARG) platform on 16th January 2023 in New Delhi.

What is MAARG PLATFORM?

- It is the National Mentorship Platform by Start-up India to help and guide new start-ups to grow and flourish.
- It is a one-stop platform to facilitate mentorship for start-ups across diverse sectors, functions, stages, geographies, and backgrounds.
- Nodal Ministry: Launched by the Department for Promotion of Industry and Internal Trade (DPIIT) under the Ministry of Commerce and Industry.

What are the objectives?

- To provide sector-focused guidance, handholding, and support to start-ups throughout their lifecycle.
- To establish a formalized and structured platform that facilitates intelligent matchmaking between the mentors and their respective mentees
- To facilitate efficient and expert mentorship for start-ups and build an outcome-oriented mechanism that allows timely tracking of mentor-mentee engagements.

Implementation of MAARG Initiative:

- Phase I: Mentor Onboarding
- Successfully launched and executed, 400+ expert mentors are on board across sectors.
- Phase II: Startup Onboarding
- DPIIT launched the onboarding of startups on the MAARG Portal with effect from 14th November 2022
- Phase III: MAARG Portal Launch and Mentor Matchmaking.
- Final launch where the mentors will be matched to the startups DPIIT has initiated the onboarding process of startups under Phase II.





Gold Exchange Traded Funds

Inflow in Gold Exchange Traded Funds (Gold ETFs) plunged by 90% to ₹459 crore in 2022 due to rising prices of yellow metal, increasing interest rate structure coupled with inflationary pressure, data with Association of Mutual Funds in India (Amfi) showed.

About Gold Exchange Traded Funds (Gold ETFs):

- They are commodity-based exchange-traded funds with an underlying asset as gold.
- They are passive investment instruments that are based on gold prices and invest in gold bullion.
- Gold ETFs are units representing physical gold which may be in paper or dematerialised form.
- One Gold ETF unit is equal to 1 gram of gold and is backed by physical gold of very high purity.
- Gold ETFs combine the flexibility of stock investment and the simplicity of gold investments.
- They are listed and traded on the National Stock Exchange of India (NSE) and Bombay Stock Exchange Ltd. (BSE) like a stock of any company.
- It can be bought and sold continuously at market prices.
- There is a complete transparency on the holdings of a Gold ETF due to its direct gold pricing.
- ETFs have much lower expenses as compared to physical gold investments.

What is an Exchange Traded Fund (ETF)?

- An ETF is a collection of investments such as equities or bonds.
- It is a basket of securities that trades on an exchange just like a stock does.
- ETF share prices fluctuate all day as the ETF is bought and sold, which is different from mutual funds, which only trade once a day after the market closes.
- ETFs can contain all types of investments, including stocks, commodities, or bonds
- They have cheaper fees than other types of funds.

What is Passive Investment?

- It is an investment strategy wherein

investors buy securities that mirror stock market indexes and hold them long-term.

- It is a strategy that focuses on replicating the index performance as opposed to daily buying and selling.
- Passive investing seeks to avoid the management fees and high transaction costs that frequent trading can cause.

Agriculture Insurance Company of India (AIC)

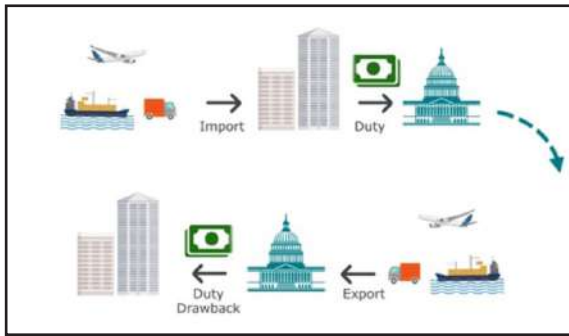
The public sector Agriculture Insurance Company of India (AIC) recently released meagre sums such as 4 paise, 1, 10, and 20 as compensation against claims for damage to kharif crops of 2021, leaving farmers in Rajasthan's Barmer area confused and unhappy.

About Agriculture Insurance Company of India (AIC):

- It was incorporated under the Indian Companies Act 1956 on 20th December, 2002.
- The company has an authorized capital of Rs. 1500 crore and paid-up share capital of Rs. 200 Crores.
- The Company is under administrative control of the Ministry of Finance.
- It is the biggest crop insurance company in the world (20 million farmers covered).
- It is headquartered at New Delhi, India.
- It is promoted by 6 Public Sector Financial Institution General Insurance Corporation, New India Assurance Company, Oriental Insurance Company, National Insurance Company, United India Insurance Company and NABARD.:
- AIC provides weather & yield-based crop insurance schemes in over 500 districts of India.
- AIC provides insurance cover to the farmers for financial losses arising from the failure of the crop (mentioned in insurance scheme) resulting from the pests, diseases, and natural calamities.

Duty drawback scheme (DDS)

Recently the GST authorities found that exporters are misusing the government's duty drawback scheme (DDS) by claiming it along with refunds of integrated goods and services tax (GST).



Why in news?

- Over 100 such exporters mainly in apparel, drugs, and leather have been “illegally” drawing benefits from two routes.

What is the Duty drawback scheme?

- Under this scheme, exporters are provided with a refund of customs duty paid on unused imported goods, or goods that will be treated, processed or incorporated into other goods for export.
- Claims must be lodged within 4 years from the date the goods were exported.
- Duty drawback can be only claimed for compensating unrebated taxes and duties, not for GST.

Financial Services Institutions Bureau (FSIB)

The Financial Services Institutions Bureau (FSIB), the headhunter for directors of state-owned banks and financial institutions, recently recommended names for the posts of managing directors of Bank of Baroda and Bank of India

About Financial Services Institutions Bureau (FSIB):

- What is it? It’s a government body set up under the Department of Financial Services.
- It replaced the Bank Board’s Bureau (BBB) which was declared an incompetent authority.

Structure:

- FSIB would be headed by a chairman, a central government nominee.
- The board would comprise the Secretaries of the DFS, the chairman of IRDAI, and a deputy governor of the RBI.
- Additionally, it will have three part-time members who are experts in banking and three more from the insurance sector.
- The Primary role of FSIB:
- To identify manpower capabilities and ensure proper selection of talent for senior positions at financial institutions owned by the government.
- It is entrusted with making recommendations for the appointment of full-time directors and non-executive chairman of state-run

financial services institutions.

- The final decision on the FSIB recommendation would be taken by the Appointments Committee of the Cabinet headed by the Prime Minister.

Other Mandates of FSIB:

- It would also issue guidelines for selecting general managers and directors of public sector general insurance companies.
- It will also be involved in formulating and developing business strategies for state-run banks and help them in their fund-raising plans.
- It would also monitor and assess the performance of public sector banks, government-owned financial institutions and insurance companies.



PROGRAMS AND YOJANAS

National Technical Textiles Mission

Recently, The Union Minister of Textiles cleared 15 R&D projects across key strategic areas such as Speciality fibre, Protective textiles, High-Performance Textiles, Medical Textiles etc under the National Technical Textiles Mission.

What are Technical Textiles?

- Technical Textiles are textile products which are manufactured primarily for their functionality and use rather than aesthetic appeal.
- Technical textiles are classified into 12 major groups based on their application areas namely; Agrotech, Geotech, Buildtech, Mobiltech, Hometech, Clothtech, Indutech, Meditech, Sportstech, Protech, Packtech, Oekotech.

Key features of the National Technical Textiles Mission India

- The Ministry of Textiles has launched NTTM to increase the penetration level of technical textiles in India while leveraging the extraordinary growth rate of the sector.
- The mission aims to position India as a global leader in Technical Textiles.
- The mission will comprise the following four components:
 - Research, Innovation and Development
 - Promotion and Market Development
 - Export Promotion
 - Education, Training, Skill Development
- Implementation: It has been approved with an implementation period of four years starting from FY 2020-21 till FY 2023-24. The total outlay of the mission is INR 1480 Cr.

Prajwala Challenge

Recently, the Ministry of Rural Development under the Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM) has launched the Prajwala Challenge

- Extended Reality (XR) Startup Program
- The Ministry of Electronics & Information Technology (MeitY), and Meta have recently announced the list of 120 startups and innovators for the Extended Reality (XR) Startup Program.

About Extended Reality (XR) Startup Program:

- The XR Startup Program is a collaboration

between Meta and MeitY Startup Hub (MSH).

- Aim: To accelerate India's contribution towards building the foundations of the metaverse and nurturing the development of Extended Reality (XR) technologies in India.
- It includes two segments namely; an Accelerator and a Grand Challenge

Accelerator:

- The Accelerator will nurture and foster 40 early-stage startups working with XR technologies through a well-designed 6-month program.
- Each startup will get access to many benefits, including a grant of ₹ 20,00,000, mentorship by industry experts and researchers, access to a network of potential strategic partners and investors, technology and infrastructure support, and opportunities to participate and present at relevant industry events.

Grand Challenge:

- The Grand Challenge is aimed at supporting early-stage innovators to upscale from the R&D phase to developing workable prototypes and Minimum Viable Products (MVPs).
- It will encourage early-stage innovators in sectors like Education, Learning and Skills, Healthcare, Gaming and Entertainment, Agritech & Climate Action and Tourism & Sustainability.
- It will include 4 sector-specific challenges to advance the XR technology ecosystem in India.
- A total of 80 shortlisted innovators will receive a grant of ₹ 50,000 and an opportunity to attend the boot camp.
- Of the 80 shortlisted innovators, 16 innovators will be supported with grants worth ₹ 20,00,000 to help them develop MVP(s)/ prototypes.

Monument Mitra Scheme

- The Secretary of the Ministry of Culture recently said that the government will hand over around 1,000 monuments under the control of the Archaeological Survey of India to the private sector for their upkeep under the Monument Mitra Scheme

About Monument Mitra Scheme:

- Nodal Ministry: Ministry of Culture in respect of the monuments under the Archaeological Survey of India.
- It applies to all centrally protected heritage properties.
- Aim: Ensuring quality & inclusive provision of amenities and facilities across heritage, natural, & tourist sites through the active participation of private and public sector organizations and individuals.
- Corporate entities will take over these monuments as part of their Corporate Social Responsibility.
- These organizations would be known as “Monument Mitras” for their collaboration initiative.
- The government has set the target to hand over 500 sites under the revamped Monument Mitra Scheme by the end of Azadi ka Amrit Mahotsav on 15 August 2023.

Special Assistance to States for Capital Investment Scheme?

Recently, the Central Government decided to give an additional ₹2,000 crore to States under the Special Assistance for Capital Investment scheme to incentivise them to scrap old vehicles and also provide tax concessions to individuals for it.

About Special Assistance to States for Capital Investment Scheme:

- Under this Scheme, financial assistance is provided to the States Governments in the form of a 50-year interest free loan for capital investment projects.
- To avail the benefit for investments made this fiscal, states will have to submit details like name of the project, capital outlay, completion period and its economic justification to the expenditure department of the Union finance ministry.



- The loan provided under the scheme will be over and above the normal borrowing ceiling allowed to the States.
- Scheme allocation will be used for PM Gati

Shakti related and other productive capital investment of the States.

- Besides, allocation would be made for digitisation of the economy, including digital payments and completion of optical fiber cable network, and reforms related to building bye-laws, town planning schemes, transit-oriented development, and transferable development rights.
- The scheme also includes Rs 5,000 crore interest-free loans which would be provided to incentivise states to undertake privatization or disinvestment of state public sector enterprises and asset monetisation.
- Such incentives to a particular state would be limited to Rs 1,000 crore.

Agri-Clinics and Agri-Business Scheme

Recently, on National Youth Day, 82 best Agripreneurs who were trained under the Agri-Clinics and Agri-Business (AC&ABC) Scheme were awarded for their significant contribution to farmers through agri-clinic and agribusiness services.



What are Agri-Clinics and Agri-Business Schemes?

- This is a mega flagship Scheme of Govt. of India implemented in the country in collaboration with NABARD since 2002.
- Aim: To transform unemployed youth into self-employed Agripreneurs through a 45-day free residential training in different parts of the country with a provision for availing loans and subsidies from the banks.
- It is being implemented by the National Institute of Agricultural Extension Management (MANAGE), Hyderabad in different states in the country with a network of 136 Nodal Training Institutes (NTIS) spread across all the states.

What is Young Professionals Scheme?

Recently, India and the United Kingdom signed and exchanged letters for Young Professionals Scheme in London.

About Young Professionals Scheme:

- It was conceived as part of an India-U.K. Migration and Mobility MoU signed in May 2021 and was announced in November at the G20 summit in Bali.
- It will permit up to 3,000 of their degree-holding citizens aged between 18 and 30 to live and work in each other's countries for two years.
- The programme will be reciprocal, also allowing UK professionals in the same position to participate in a professional exchange by living and working in India.
- This scheme makes India the first visa-national country to benefit from the scheme.

One Week One Lab Campaign?

Recently, the Union Minister of State (Independent Charge) Science & Technology launched this campaign at India Habitat Centre, New Delhi.

About One Week One Lab Campaign:



- The One Week One lab campaign of the Council of Scientific & Industrial Research (CSIR), will highlight India's global excellence in technology, innovation and Start-ups.
- In this campaign, each of CSIR's 37 constituent laboratories, spread Nationwide, will showcase their legacy, exclusive innovations and technological breakthroughs every successive week.
- During the campaign each CSIR lab shall be organizing week-long events including industry & start-up meet, students connect, society connect, display of technologies, etc.
- The campaign will also focus on academia and skill development, where interested students from varying domains get to know about the research activities and facilities of the CSIR laboratories and get a connection with prospects.
- Industries & MSMEs Meets are targeted to establish an understanding between Science and Industry based on the requirement of the society or regional needs and to identify potential industries for co-development of

Next Gen technologies and products.

- It will be an opportunity to create networks of Govt- Academia-Industry for faster deliveries and deployments of technologies.

What is CSIR?

- It is the largest research and development (R&D) organisation in India which was set up in 1942.
- It is funded by the Ministry of Science and Technology

What is the Structure of the Organisation?

- The Prime Minister of India (Ex-officio) is the President of this organisation.
- Vice President: Union Minister of Science and Technology (Ex-officio)
- Governing Body: The Director-General is the head of the governing body.
- The other ex-officio member is the finance secretary (expenditures).

Aspirational Block Programme

Recently, the Prime Minister of India launched the Aspirational Block Programme at the second National Conference of Chief Secretaries in Delhi.

What is Aspirational Block Programme?

- The Aspirational Blocks Programme is on the lines of the Aspirational District Programme that was launched in 2018 and covers 112 districts across the country.
- This new programme is aimed at improving performance of blocks lagging on various development parameters.
- This will enable holistic development in those areas that require added assistance.
- The programme will cover 500 districts across 31 states and Union Territories initially.
- Over half of these blocks are in 6 states— Uttar Pradesh (68 blocks), Bihar (61), Madhya Pradesh (42), Jharkhand (34), Odisha (29) and West Bengal (29).

What is Aspirational Districts Programme?

- It was launched in 2018 and aims to transform districts that have shown relatively lesser progress in key social areas.
- 3C Strategy: The broad contours of the programme
- Convergence (of Central & State Schemes)
- Collaboration (of Central, State level 'Prabhari' Officers & District Collectors)
- Competition (among districts driven by a Mass Movement)
- Parameters for Ranking: The ranking is based on the incremental progress made across 49 Key Performance Indicators

(KPIs) under 5 broad socio-economic themes

- Health & Nutrition (30%)
- Education (30%)
- Agriculture & Water Resources (20%)
- Financial Inclusion & Skill Development (10%)
- Infrastructure (10%)

Digital India land Records

Modernisation Programme (DILRMP)

Recently, the Union government has informed the Supreme Court that significant progress has been made in the computerisation of land ownership records, as cadastral maps of 35% of over six lakh villages have so far been geotagged.

Why in news?

- As per the Management Information System of Digital India land Records Modernisation Programme (DILRMP), out of 6,56,793 villages, Cadastral Maps have been Geo-referenced in 2,31,026 villages (35.17%) and 1,17,38,272 number of maps have been digitised.

What is Digital India Land Record

Modernisation Programme (DILRMP)?

- It is a Central Sector scheme that has been extended to 2023-24, to complete its original targets as well as expand its ambit with a slew of new schemes.
- In 2008, two schemes viz, Computerisation of Land Records (CLR) and Strengthening of Revenue Administration and Updating of Land Records (SRA&ULR) were merged into a modified scheme named DILRMP.
- It is being implemented by the Department of Land Resources under the Ministry of Rural Development.
- Aim: It attempts to build upon the commonalities that exist in the arena of land records in various States to develop an appropriate Integrated Land Information Management System (ILIMS) across the country.
- The ILIMS integrates all the processes and lands records databases with the banks, financial institutions, circle rates, Registration Offices and other sectors.
- Major components: Computerization of land records, Survey/re-survey, Computerization of Registration.

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Pradhan Mantri Rashtriya Bal Puraskar

The President of India will confer the Pradhan Mantri Rashtriya Bal Puraskar, 2023 to 11 children at an Award ceremony in Delhi on 23 January 2023.

About Pradhan Mantri Rashtriya Bal Puraskar:

- It is given under two categories.
- Bal Shakti Puraskar: This award is given by the Government of India every year to recognize exceptional achievements of children in various fields namely

innovation, scholastic achievements, social service, arts & culture, sports and bravery.

- Eligibility criteria: A child who is an Indian Citizen and residing in India and is between 5-18 years of age.
- Award: The award consists of a medal, a cash prize of Rs. 1,00,000, book vouchers worth Rs.10,000, a certificate and a citation.
- It was started in 1996 as the National Child Award for Exceptional Achievement, and renamed in 2018 as Bal Shakti Puraskar.
- Bal Kalyan Puraskar: This is given as recognition to Individuals and Institutions, who have made an outstanding contribution towards service for children in the field of child development, child protection and child welfare.
- Eligibility criteria: An individual who is an Indian Citizen residing in India and should have attained the age of 18 years or above (as of 31st August of the respective year). S/he should have worked for the cause of children for not less than 7 years.
- The institution should not be entirely funded by the government and should have been in the field of child welfare for 10 years and performing consistently in the field.
- Award: The awards are given in each of the two categories - Individual and Institution - along with cash prizes (Rs. 1,00, 000 and Rs. 5,00, 000 respectively).
- It was started in 1979 as the National Child Welfare Awards and in 2018 renamed it as Bal Kalyan Puraskar.

Grameen Udyami Scheme?

Union Minister of State for Skill Development & Entrepreneurship will attend the felicitation ceremony of over 200 tribal women who have completed training under Phase 3 of the Grameen Udyami Scheme in Jharkhand.

About Grameen Udyami Scheme:

- It was launched to augment skill training in tribal communities for inclusive and sustainable growth.
- It is funded by the National Skill Development Corporation.
- The project is being implemented in Maharashtra, Rajasthan, Chhattisgarh, Madhya Pradesh, Jharkhand, and Gujarat.
- It is implemented under the Sansadiya Sankul Pariyojana to expand the rural/local economy, enhance employment opportunities, reduce forced migration and also lead to the conservation of natural resources.

Key facts about the National Skill Development

Corporation:

- The National Skill Development Corporation (NSDC) is a non-profit public limited company established on July 31, 2008, under Section 25 of the Companies Act, 1956.
- The Ministry of Finance established it as a Public Private Partnership (PPP) model.
- The Government of India, through the Ministry of Skill Development and Entrepreneurship (MSDE), owns 49% of NSDC, while the private sector owns the remaining 51%.
- The organisation provides funding to develop scalable and successful initiatives for vocational training.

Broadcasting Infrastructure and Network Development (BIND) Scheme?

The Cabinet Committee on Economic Affairs recently approved the proposal of the Ministry of Information and Broadcasting regarding the BIND scheme at a cost of ₹2,539.61 crore up to 2025-26.

About Broadcasting Infrastructure and Network Development (BIND) Scheme:

- It is a Central Sector Scheme which provides financial support for the infrastructure development of Prasar Bharati i.e. All India Radio (AIR) and Doordarshan (DD).
- This scheme will enable the public broadcaster to undertake a major upgradation of its facilities with better infrastructure which will widen its reach, including in the LWE, border and strategic areas and provide high-quality content to the viewers.
- Another major priority area of the scheme is the development of high-quality content for both domestic and international audiences and ensuring the availability of diverse content to the viewers by upgradation of the capacity of the DTH platform to accommodate more channels.
- Purchase of OB vans and digital upgradation of DD and AIR Studios to make them HD-ready will also be done as part of the project.
- The Project for modernization and augmentation of broadcast infrastructure also has the potential to generate indirect employment by way of manufacturing and services related to the supply and installation of broadcast equipment.
- The Scheme will increase coverage of AIR FM transmitters in the country to 66% by geographical area and 80% by population up from 59% and 68% respectively.
- It also envisages free distribution of over 8

lakh DD Free Dish STBs to people living in remote, tribal, LWE and border areas.

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SPRINT Scheme

The Indian Navy has recently inked an agreement with Sagar Defence Engineering Pvt. Ltd for acquiring armed autonomous boat swarms under the 'SPRINT' initiative.

About SPRINT Scheme:

- 'SPRINT' Scheme is an initiative to promote development of niche defence technologies by domestic companies.
- The task of development of this technology is one of the 75 challenges that have been introduced by the Indian Navy under Azadi ka Amrit Mahotsav last year.
- To achieve 'Aatmanirbharta' in defence, Naval Innovation and Indigenisation Organisation (NIIO), in conjunction with the Defence Innovation Organisation (DIO), aims to induct at least 75 new indigenous technologies/products into the Indian Navy till August 2023.
- This collaborative project is named SPRINT {Supporting Pole-Vaulting in R&D through Innovations for Defence Excellence (iDEX), NIIO and Technology Development Acceleration Cell (TDAC)}.
- It was launched by Prime Minister in July, 2022.
- It will transform Navy from a 'Buyer's Navy' to a 'Builder's Navy'.
- Naval Innovation and Indigenisation Organisation (NIIO):
- Defence Ministry had launched the NIIO in August 2020, to encourage innovation and indigenisation for self-reliance in defence sector. It is a 3-tiered organisation:
- Naval Technology Acceleration Council (N-TAC) will bring together the twin aspects of innovation and indigenization and provide apex level directives.
- Working group under the N-TAC will implement the projects.
- Technology Development Acceleration Cell (TDAC) has been created for induction of emerging disruptive technology in an accelerated time frame.

What is DAY-NRLM?

- It is one of the flagship poverty alleviation programs which aims at creating efficient and effective institutional platforms for the rural poor, enabling them to increase household income through sustainable livelihood enhancements and improved

access to financial services.

Key Features:

- Universal Social Mobilisation: At least one woman member from each identified rural poor household, is to be brought under the Self Help Group (SHG) network in a time bound manner.
- Participatory Identification of Poor (PIP): All households identified as poor through the PIP process is the NRLM Target Group and is eligible for all the benefits under the programme.
- Community Funds as Resources in Perpetuity: NRLM provides Revolving Fund (RF) and Community Investment Fund (CIF) as resources in perpetuity to the institutions of the poor, to strengthen their institutional and financial management capacity.



Neglected Tropical Diseases

The recent World Health Organization (WHO) report said that Neglected Tropical Diseases (NTD) continue to disproportionately impact the most impoverished members of the international community.

About Neglected Tropical Diseases

- Neglected tropical diseases (NTDs) are a diverse group of tropical infections which are common in low-income populations in developing regions of Africa, Asia, and the Americas.
- They are caused by a variety of pathogens such as viruses, bacteria, protozoa and parasitic worms (helminths).
- There are a diverse group of 20 diseases that are affecting more than 1 billion people who live in impoverished communities.
- They include Buruli ulcer, Chagas Dengue, Chikungunya, Echinococcosis; foodborne trematodes; human African trypanosomiasis; leishmaniasis; leprosy; Lymphatic filariasis, mycetoma, etc

Global Initiative to end NTDs

- The WHO's new road map for 2021–2030 calls for three strategic shifts to end NTDs:
- From measuring process to measuring impact.
- From disease-specific planning and programming to collaborative work across sectors.
- From externally driven agendas reliant on programmes that are country-owned and country-financed.

LHS 475 b

Recently, the National Aeronautics and Space Administration (NASA) announced that the James Webb Space Telescope has discovered its first new exoplanet.

About LHS 475 b

- Researchers have labelled the new exoplanet as LHS 475 b, and it's roughly the same size as Earth, the agency added.
- It is located just 41 light-years away, the planet orbits very close to a red dwarf star and completes a full orbit in just two days.

What are Exoplanets?

- These are planets that orbit other stars and are beyond our solar system.

- Exoplanets come in a host of different sizes. They can be gas giants bigger than Jupiter or as small and rocky as Earth.
- They are also known to have different kinds of temperatures; boiling to cold.
- Scientists rely on indirect methods to discover exoplanets such as the transit method, which is “measuring the dimming of a star that happens to have a planet pass in front of it”
- Scientists believe that there are more planets than stars as each star has at least one planet orbiting it.
- Studying exoplanets not only broadens our understanding of other solar systems but also helps us piece together information about our planetary system and origin.

Doppler Weather Radar

Recently on the occasion of the 148th Foundation Day of India, the Meteorological Department (IMD) Union Minister of Earth science said the entire Country will be covered by Doppler Weather Radar Network by 2025.

Why in news?

- The Union Minister dedicated 4 Doppler Weather Radar Systems to the Western Himalayan States of Jammu and Kashmir, Uttarakhand and Himachal Pradesh. He also dedicated 200 Agro Automated Weather Stations to the Nation.

How does Radar work?

- Radars is a beam of energy, called radio waves, emitted from an antenna. As they strike objects in the atmosphere, the energy is scattered in all directions with some of the energy reflected directly back to the radar.

What is Doppler Radar?

- A Doppler radar is a specialized radar that uses the Doppler effect to produce velocity data about objects at a distance.
- These radar systems can provide information regarding the movement of targets as well as their position.
- Doppler radars help forecasters to observe rainfall, and the advance of cloud formations over a region and subsequently monitor thunderstorms and lightning in real time.

What is Doppler Effect?

- It was first described (1842) by Austrian physicist Christian Doppler.
- It is the apparent difference between the frequency at which sound or light waves leave a source and that at which they reach an observer, caused by the relative motion of the observer and the wave source.

What is a Spider Star System?

Scientists at NASA have recently detected the first gamma-ray eclipses from a “spider” star system

About Spider Star System:

- It is a binary star system in which a superdense star (pulsar) spins quickly, eats another star.
- The super-dense object that begins to pull a matter from the companion resembles the habits of spiders of the genus *Latrodectus*, in which the female eats the male after mating, hence the name came.
- Initially, the dense pulsar strips material from the outer atmosphere of its companion, periodically shedding the gathered material in violent explosions.
- In the later stage of their lifetimes, the energetic particles streaming out of the pulsar can strip the atmosphere of its companion.
- In either case, the pulsar slowly erodes its companion over time.

Two Types:

- Black widows: Binary pulsar systems, in which the mass of a companion star is less than 5 percent of the pulsar.
- Redback: Binary pulsar systems in which mass of the companion star is from 10 to 50 percent of the pulsar.

What is a Binary star system?

- A binary system is one in which two stars orbit around a common centre of mass, that is they are gravitationally bound to each other.

What are pulsars?

- Pulsars are rapidly spinning neutron stars, extremely dense stars composed almost entirely of neutrons and having a diameter of only 20 km (12 miles) or less.
- They emit concentrated streams of radiation far across the cosmos.

What are neutron stars?

- They are the remnants of giant stars that died in a fiery explosion known as a supernova.
- After such an outburst, the cores of these former stars compact into an ultradense

object with the mass of the sun packed into a ball the size of a city.

What is Nitrate radical?

Recently, a new study has found that parts of India and China are hotspots for the night-time production of nitrate radicals.

About Nitrate radicals:

- Nitrate radical is an oxide of nitrogen that consists of three oxygen atoms bound to a nitrogen atom.
- These radicals could increase the amount of unhealthy ozone and PM2.5 fine particulate matter in the atmosphere.
- Nitrate radicals will oxidise gas pollutants such as volatile organic compounds (VOCs).
- These VOCs will then generate ozone and secondary organic aerosol, both deteriorates air quality.
- The Ozone is an air pollutant that affects human health and crop yield.
- The synthesis of nitrate radicals rises at night in some regions of India, particularly in northern India.
- Reducing the emissions of VOCs could reduce this night-time oxidation in India and China.

What is GJ 1002 b and c?

An international group of researchers has recently discovered the presence of two planets with masses comparable to that of the Earth in orbit around the star GJ 1002.

About GJ 1002 b and c:

- The two new planets are named, GJ 1002 b and GJ 1002 c.
- These planets lie in so-called habitable zones, within which water could be found in liquid form, and which is located in the immediate vicinity of the star due to its low luminosity.
- Planet b has a mass slightly higher than Earth's, is the closer of the two and its year lasts only 10 days.
- Planet c is about a third more massive than Earth and takes about 20 days to orbit the star.
- The two planets were discovered using the radial velocity (RV) method.

What is the Radial Velocity method?

- This method is based on the detection of variations in the velocity of the central star, due to the changing direction of the gravitational pull from an unseen exoplanet as it orbits the star.

Lucy Mission

NASA recently announced that it is adding a new target for the Lucy mission as the spacecraft goes on its more than 6-billion-kilometre-long journey to study the Jupiter trojan asteroids..

About Lucy Mission:

- NASA's Lucy mission is the first spacecraft launched to explore the Trojan asteroids, a population of primitive asteroids orbiting in tandem with Jupiter.
- Lucy was successfully launched Oct. 16, 2021, and will visit eight asteroids over 12 years — one asteroid in the main belt between Mars and Jupiter, and seven Trojan asteroids leading and trailing Jupiter in its orbit.

What are Trojan Asteroids?

- Asteroids sharing an orbit with a planet, but which are located at the leading (L4) and trailing (L5) Lagrangian points, are known as Trojan asteroids.
- These asteroids occupy a stable Lagrangian point in a planet's orbit around the Sun.
- Trojan Asteroids are some of the oldest remnants from the formation of our solar system 5 billion years ago.
- There are currently over 4,800 known Trojan asteroids associated with Jupiter.
- They orbit the Sun in two loose groups: one group leading ahead of Jupiter in its orbit, the other trailing behind at the same distance from the Sun as Jupiter.
- Due to the combined gravitational influences of the Sun and Jupiter, these Trojan asteroids have been trapped on stable orbits (around what is known as the Lagrange Points) for billions of years.

What is a Lagrange point?

- Lagrange Points are positions in space where the gravitational forces of a two body system like the Sun and the Earth produce enhanced regions of attraction and repulsion.
- The Lagrange Points are positions where the gravitational pull of two large masses precisely equals the centripetal force required for a small object to move with them.
- These can be used by spacecraft to reduce fuel consumption needed to remain in position.

Spinal Muscular Atrophy type-1

The paediatrics department at AIIMS Delhi recently wrote a recommendation letter for the father of an 11-month-old patient who is seeking financial assistance for the infant's treatment

worth Rs 17.5 crore (USD 2.1 million) due to SMA (Spinal Muscular Atrophy) type-1.

About Spinal Muscular Atrophy) type-1:

- Spinal Muscular Atrophy is a neurological condition caused by a defect in the SMN1 gene.
- Normally, every person is born with a gene called SMN1 which produces a protein called SMN protein, in many cells in our body.
- This protein is essential for the normal functioning of nerve cells in the spinal cord called the 'anterior horn cells.
- The anterior horn cells control the skeletal muscles essential for all our movements. However, the absence of the SMN1 gene causes a reduction in the amount of SMN protein produced in anterior horn cells.
- Impacts of reduced SMN protein: The reduced quantity of SMN protein causes gradual death of anterior horn cells, and thus progressive weakness of muscles of limbs, trunk and breathing and swallowing muscles.

There are broadly three types of SMA

- SMA Type 1: It is the most severe type of SMA. The child will never achieve independent sitting, and at best, can attain neck holding and rollover.
- SMA Type 2: These children will attain sitting without support, but, will not be able to walk independently.
- SMA Type 3: This is the milder form of SMA. The affected persons can walk independently but have difficulty walking upstairs.

Treatment

- There are currently three types of medicines available for the treatment of children and adults with SMA.
- Spinraza (Nusinersen): This is an 'exon skipping', with medicine injected into the spine. There is no age limit for the administration of this medicine. It works by increasing the quantity of SMN2 expression, and thus SMN protein quantity.
- Zolgensma: It is an artificially prepared SMN1 gene, coupled with an innocuous viral vector (AAV9) and administered as a single-dose intravenous infusion. This medicine is approved for use in children under two years of age
- Risdiplam: It is the most recently approved drug (in 2020). It is in the form of powder and the reconstituted solution is given orally, once daily, life-long.

Lymphatic Filariasis

- Union Minister for Health & Family Welfare recently said that India is committed to eliminating Lymphatic Filariasis by 2027 in the National Symposium on India's Roadmap to Eliminate Lymphatic Filariasis (LF) held at Vigyan Bhawan, New Delhi.

What is Lymphatic Filariasis?

- The Lymphatic filariasis disease commonly known as elephantiasis is a neglected tropical disease. Infection occurs when filarial parasites are transmitted to humans through mosquitoes.
- This impairs the lymphatic system and can lead to the abnormal enlargement of body parts, causing pain, severe disability and social stigma.
- It is caused by infection with parasites classified as nematodes (roundworms) of the family Filariodidea. There are 3 types of these thread-like filarial worms:
 - Wuchereria bancrofti, which is responsible for 90% of the cases
 - Brugia malayi, which causes most of the remainder of the cases
 - Brugia timori, which also causes the disease.

Global Initiatives to eradicate Lymphatic Filariasis

- WHO's road map 2021–2030: sets global targets and milestones to prevent, control, eliminate or eradicate 20 diseases
- Global Programme to Eliminate Lymphatic Filariasis (GPELF): WHO established this to stop the transmission of infection by mass drug administration (MDA) of anthelmintics and to alleviate the suffering of people affected by the disease through morbidity management and disability prevention (MMDP).

Visible Emission Line Coronagraph (VELC)

The handover ceremony of the Visible Emission Line Coronagraph (VELC) which is the primary payload of Aditya-L1 Mission was held recently.

About Visible Emission Line Coronagraph (VELC) on board Aditya-L1:

- What is it? It is the largest payload that would fly on the Aditya-L1 mission. It is an internally occulted solar coronagraph capable of simultaneous imaging, spectroscopy and spectro-polarimetry close to the solar limb.

- The VELC consists of a coronagraph, spectrograph, polarimetry module and detectors, aside from auxiliary optics.
- It is built by the Indian Institute of Astrophysics (IIA) at its CREST (Centre for Research and Education in Science and Technology) campus at Hosakote, Karnataka.

Purpose:

- It will observe the solar corona, which is the tenuous, outermost layer of the solar atmosphere.
- It will analyze the coronal temperature, plasma velocity, density, etc.
- It will also study Coronal Mass Ejections (CMEs) and the solar wind.

What is Aditya-L1 Mission:

- It is India's first dedicated scientific mission to study the Sun.
- The spacecraft will be placed in a halo orbit around the first Lagrange point, L1, which is 1.5 million km from the Earth towards the Sun.
- A satellite around the L1 point has the major advantage of continuously viewing the Sun without occultation/eclipses.
- Aditya-L1 carries seven payloads to observe the photosphere, chromosphere, and the outermost layers of the Sun (the corona) using electromagnetic and particle detectors.
- The satellite will be launched by PSLV-XL launch vehicle from Sriharikota.

What are Coronal Mass Ejections (CMEs):

- (CMEs) are large expulsions of plasma and magnetic fields from the Sun's corona.
- The blast of a CME carries about a billion tons of material out from the Sun at very high speeds of hundreds of kilometers per second.
- A CME contains particle radiation (mostly protons and electrons) and powerful magnetic fields stronger than what is normally present in the solar wind.
- The resulting shocks ripple through the solar system and can interrupt satellites and power grids on Earth.

M1 Abrams

About M1 Abrams tanks:

- It is the United States main battle tank.
- The first M1 tank was manufactured by General Dynamics Land Systems (GDLS) in 1978 and was delivered to the US Army in 1980.
- It was named in honor to General Abrams,

commander of US forces during the Vietnam War.

- The export version of the Abrams is used by the armies of Australia, Egypt, Iraq, Kuwait, Poland, and Saudi Arabia.

Features:

- It uses a powerful and complex turbine engine that produces 1,500 horsepower and requires four persons to operate.
- It is one of the heaviest tanks in service at nearly 62 metric tons.
- The M1 tanks have a maximum speed of 45
- Armament: The Abrams is armed with a 120 mm main gun and .50 caliber and 7.62 mm machine guns.
- It can destroy tank-size targets at a range of 2 km while firing on the move.
- In modern versions of the Abrams tank, there are layers of depleted uranium armour which provides substantial protection to those inside.

Green comet

- Astronomers recently spotted a comet using the wide-field survey camera at the Zwicky Transient Facility (ZTF) in the US, which is appearing near earth after nearly 50,000 years.

What are Green comets?

- Comets are frozen rocky or gas-filled objects that are remnants of the formation of the solar system.
- The solid portions of a comet which is mostly water ice with embedded dust particles.
- When near the sun, the icy cometary surfaces vaporise and emit large amounts of gas and dust, resulting in a massive atmosphere and tails.
- The fluorescence of these gases, and especially the reflection of sunlight from the minute dust particles in the comet's atmosphere and tail, is what gives these objects their visual impact.
- Just like other bodies in space, comets also have orbits. They are sometimes pulled in close to the sun because of the sun's gravity acting on them.
- The orbit indicates this comet comes from the edge of our solar system, a distant reservoir of comets we call the Oort cloud.
- The Oort cloud is thought to be a big, spherical region of outer space enveloping our sun, consisting of innumerable small objects, such as comets and asteroids.
- What is the reason for the Green colour? Laboratory research has linked this green-like aura to a reactive molecule called dicarbon, which emits green light as

sunlight decays it.

What is BharOS?

Recently, BharOS, an indigenous mobile operating system was developed by JandK Operations Private Limited, a non-profit organization incubated at IIT Madras and funded by the Department of Science and Technology.

Key Features of BharOS



- BharOS is a mobile operating system similar to Android or iOS; it is based on an AOSP (Android Open Source Project) operating system and does not use any Google apps or services.
- It would support Native Over The Air (NOTA) updates as well as No Default Apps (NDA).
- It has a minimalistic home screen with the Indian flag, a list of app categories, and a selection of apps that have passed the OS's trust and security standards.
- It will employ the Private App Store Services (PASS) system to examine and curate apps that are safe for users.
- These systems enable smartphone users to interact with their devices and access their features while also ensuring their safety.
- Current status: The current version of BharOS includes third-party apps such as DuckDuckGo and Signal by default.

What is Native Over The Air (NOTA)?

- Security updates and bug fixes will be automatically installed rather than users having to check for updates and implement them on their own

What is the No Default Apps setting? :

- Users do not have to keep or use pre-installed apps in this mobile operating system.

Norovirus

- The Kerala Health Department recently confirmed two cases of the gastrointestinal infection Norovirus in class 1 students in the Ernakulam district.

About Norovirus

- The Norovirus, also known as the “winter vomiting bug,” causes vomiting and diarrhoea.
- Infection agents: The most common infective agent is contaminated water or food.
- The virus spreads via faeces to the mouth. Consuming contaminated food or liquids, touching contaminated surfaces or objects, or coming into direct contact with an infected person.
- Symptoms: Acute gastroenteritis is caused by inflammation of the stomach or intestine. Diarrhoea, vomiting, nausea, and stomach ache are also symptoms. Fever, headaches, and muscle pain may also persist.
- The symptoms usually appear 12 to 48 hours after the virus has been exposed.
- It affects particularly children, the elderly, and people suffering from other illnesses.
- Severity: Although these virus outbreaks are rarely severe, they can spread quickly if proper precautions are not taken.

Magellanic Cloud

Recently, the world’s most powerful telescope, NASA’s James Webb telescope, has found a star formation in a dynamic cluster that lies within a nebula 200,000 light years away

Why in news?

- As per the American space agency, the Small Magellanic Cloud (SMC) star-forming region NGC 346 is one of the most dynamic in nearby galaxies and is a dwarf galaxy. It is close to the Milky Way with lower metal concentrations.

What is Magellanic Cloud?

- The Magellanic Clouds are irregular galaxies that share a gaseous envelope and lie about 22° apart in the sky near the south celestial pole.
- They are comprised of two irregular galaxies, the Large Magellanic Cloud (LMC) and the Small Magellanic Cloud (SMC), which orbit the Milky Way once every 1,500 million years and each other once every 900 million years.
- These companion galaxies were named for the Portuguese navigator Ferdinand Magellan, whose crew discovered them during the first voyage around the world (1519–22).
- Magellanic Clouds were formed at about the same time as the Milky Way Galaxy, approximately 13 billion years ago.
- They are presently captured in orbits around the Milky Way Galaxy and have

experienced several tidal encounters with each other and with the Galaxy.

- They contain numerous young stars and star clusters, as well as some much older stars.
- The Magellanic Clouds are visible to the unaided eye in the Southern Hemisphere.

SAFAR system

The Air Quality Index (AQI) in the national capital was recorded 381 recently, as per the System of Air Quality and Weather Forecasting and Research (SAFAR) and the air quality remained in the ‘very poor category’.

About SAFAR system

- It stands for System of Air Quality Forecasting and Research.
- SAFAR is an air quality monitoring system. It was introduced by the Ministry of Earth Sciences (MoES) to provide location specific information on air quality in near real time and its forecast upto 3 days in India.
- It is developed by Indian Institute of Tropical Meteorology (IITM), Pune, along with India Meteorological Department (IMD) and National Centre for Medium Range Weather Forecasting (NCMRWF).
- Objective: To increase awareness among the general public regarding the air quality changes in their city well in advance so that appropriate mitigation measures and systematic action can be taken up for betterment of air quality and related health issues.
- The World Meteorological Organization has recognised SAFAR as a prototype activity on the basis of the high quality control and standards maintained in its implementation.

How is the Air Quality Index (AQI) calculated in India?

- AQI is calculated based on the average concentration of a particular pollutant measured over a standard time interval (24 hours for most pollutants, 8 hours for carbon monoxide and ozone).
- Eight individual pollutants are monitored for the calculation of AQI in India. These are PM10, PM2.5, nitrogen dioxide, sulphur dioxide, carbon monoxide, ground-level ozone, ammonia, and lead.
- To calculate AQI, data for a minimum of three pollutants must be present, of which one should be either PM10 or PM2.5.

Planet parade

Recently, over the past few nights, Venus and

Saturn have been gradually coming together in the sky which was visible through the naked eye.

About Planet Parade:

- This is the phenomenon wherein the planets Mercury, Venus, Mars, Jupiter, and Saturn were visible to the naked eye from Earth.
- This planetary meet-up, also known as a conjunction, makes the two planets appear close together or even touch in the Earth's night sky.
- Despite being millions of kilometres apart, the planets seem to occupy the same space in the night sky because of their alignment.
- Just after sunset in the west, a conjunction of Venus and Saturn were 0.4 degrees apart as seen from earth.

Bimodal Nuclear Propulsion

Recently, as part of the NASA Innovative Advanced Concepts (NIAC) program for 2023, NASA selected a bimodal nuclear propulsion concept for Phase I development which could reduce transit times to Mars to just 45 days.



About Bimodal nuclear propulsion:

- Bimodal nuclear propulsion is a two-part system that includes; Nuclear Thermal and Nuclear Electric Propulsion (NTP/NEP).
- It uses a wave rotor topping cycle.

How will nuclear propulsion work?

- The Nuclear Thermal system includes a nuclear reactor that will heat liquid hydrogen (LH2) propellant and turn it into ionised hydrogen gas (plasma) that will then be channelled through a nozzle to generate thrust.
- Nuclear Electric Propulsion depends on a nuclear reactor to provide electricity to a Hall-Effect thruster (ion engine), which will generate an electromagnetic field that will ionise and accelerate an inert gas to create thrust.
- Advantages: Fuel efficiency, a higher specific impulse, rating and unlimited energy density.

What is the ASMI Machine Pistol?

The Indian Army has recently raised a tender to indigenously source 5,000 9×19 mm machine pistols as an 'Emergency Procurement' via the Fast Track Procedure (FTP) of the Defence Acquisition Procedure, 2020 (DAP 2020).

About ASMI Machine Pistol:



- ASMI (meaning pride/ self-respect) is India's first indigenous 9mm machine pistol.
- Developed jointly by DRDO (Defence Research and Development Organisation) and Indian Army.
- It weighs under 2kg and can fire at a range of 100 metres.
- It has an 8-inch barrel and 33 rounds of high-capacity magazine load.
- It would cost around Rs 50,000 per unit.
- The 3D printing process was used to design and prototype the pistol's various parts, including its trigger components.
- It is set to replace the 9mm pistols in the Indian defence forces.

What is a Machine pistol?

- It is a relatively small, self-loading automatic handgun with a high rate of fire and can fire in intermittent or sustained bursts.

AH-64E Apache Attack Helicopter

- The first fuselage for the Indian Army's contract for six AH-64E Apache attack helicopters has recently been rolled out of the Tata Boeing Aerospace Limited (TBAL) facility in Hyderabad.

Why in News?

- The first Apache is scheduled to be delivered to the Army in February 2024 and training of Army Aviation pilots and technicians commenced in the U.S. recently.

About AH-64E Apache:

- It is the world's most advanced multi-role combat helicopter.
- Country of Origin: United States
- Manufacturer: Boeing
- It is also known as Apache Guardian.

- The AH-64E attack helicopter is the latest version of the AH-64, used by the US Army.
- Other purchasers: India, Egypt, Greece, Indonesia, Israel, Japan, South Korea, Kuwait, Netherlands, Qatar, Saudi Arabia, Singapore, UAE, UK.

Features:

- It is designed and equipped with an open systems architecture to incorporate the latest communications, navigation, sensor, and weapon systems.
- Has greater thrust and lift, joint digital operability, improved survivability and cognitive decision aiding.
- The AH-64E includes a new integrated infrared laser that allows for easier target designation and enhanced infrared imagery that blends infrared and night vision capabilities.
- Apache for Indian defence forces: The Indian Air Force has a fleet of 22 AH-64E Apache attack helicopters, and in 2020, Boeing signed an agreement with the Government of India for the acquisition of six more Apache helicopters for the Indian Army.

Tata Boeing Aerospace Limited (TBAL):

- It is a joint venture between Tata Advanced Systems Limited and aircraft manufacturer Boeing.
- Boeing's first equity joint venture in India.
- TBAL manufacturing facility is located in Hyderabad.
- TBAL is the sole global producer of fuselages for AH-64 Apache helicopters.

What is AK-203?

Recently, the Indo-Russian Rifles Private Limited (IRRPL), has started producing AK-203 Kalashnikov assault rifles at Korwa in Uttar Pradesh.

About AK-203:

- The AK-203 rifles are manufactured in a joint venture between India and Russia.
- These are high-quality, convenient and modern small arms.
- This model combines excellent ergonomics, adaptability to different shooters and high-performance characteristics, it is one of the best assault rifles in the world.
- The joint venture plans to ensure 100% localisation of the production of AK-203 rifles in India

What is Indo-Russian Rifles Private Limited

(IRRPL)?

- The IRRPL was set up in 2019 jointly between erstwhile OFB [now Advanced Weapons and Equipment India Limited (AWEIL) and Munitions India Limited (MIL)] of India and Rosoboronexport and Kalashnikov of Russia.

SHUKRAYAAN-1

- An advisor to the space science programme recently said that the Indian Space Research Organisation is yet to receive approval from the Indian government for the Venus mission and that the mission could as a result be postponed to 2031.



About SHUKRAYAAN-1

- It is also called the Venus Mission.
- The Shukrayaan I mission will be an orbiter mission.
- Its scientific payloads currently include a high-resolution synthetic aperture radar and a ground-penetrating radar.
- The mission is expected to study Venus's geological and volcanic activity, emissions on the ground, wind speed, cloud cover, and other planetary characteristics from an elliptical orbit.
- Optimal launch windows from Earth to Venus occur once every 19 months.

Key facts about Venus

- Venus is often called "Earth's twin" because they're similar in size and structure, but Venus has extreme surface heat and a dense, toxic atmosphere.
- It rotates very slowly on its axis – one day on Venus lasts 243 Earth days.
- The thick atmosphere of Venus traps heat creating a runaway greenhouse effect – making it the hottest planet in our solar system.
- Phosphine, a possible indicator of microbial life, has been observed in the clouds of Venus.
- Unlike the other planets in our solar system, Venus spins clockwise on its axis.

Geospatial Hackathon?

Union Minister of Science & Technology recently launched Geospatial Hackathon to promote Innovation and Start-Ups in India's Geospatial ecosystem.

About Geospatial Hackathon:

- It is a hackathon to create interest in geospatial tech and specifically build solutions leveraging maps and satellite data for solving India's problems.
- The Department of Science and Technology(DST) under the Minister of Science & Technology in partnership with IIT Hyderabad and Microsoft has launched this Hackathon.
- The Geospatial Hackathon will be divided into 2 parts,
- Research Challenge: The National Science & Technology Entrepreneurship Development Board and IIT Hyderabad brings the Startup Challenge as part of this Hackathon intending to promote the use of geospatial technologies in solving real-world problems and fostering innovation in the Indian geospatial ecosystem
- Startup Challenge: The Research Challenge is specific to the problem statements given by DST (Survey of India.) is proposing a Geospatial Data Processing, Solution development, and Servicing Challenge to foster the adoption of geospatial technologies and to promote innovation in India's Geospatial ecosystem

Giant Metrewave Radio Telescope

Recently, a radio signal originating from atomic hydrogen in an extremely distant galaxy was detected by the Giant Metrewave Radio Telescope (GMRT).

Why in news?

- Astronomers from McGill University in Canada and the Indian Institute of Science (IISc) in Bengaluru have used data from the telescope to detect atomic hydrogen.

Key facts about Giant Metrewave Radio Telescope

- It is a low-frequency radio telescope that helps investigate various radio astrophysical problems ranging from nearby solar systems to the edge of the observable universe.
- It is operated by the National Centre for Radio Astrophysics(NCRA), a part of the Tata Institute of Fundamental Research, Mumbai.

What is Atomic Hydrogen?

- Atomic hydrogen is the basic fuel required for star formation in a galaxy.

- When hot ionised gas from the surrounding medium of a galaxy falls onto the universe, the gas cools and forms atomic hydrogen.
- This atomic hydrogen then becomes molecular hydrogen and eventually leads to the formation of stars.
- Atomic hydrogen emits radio waves of 21 cm wavelength, which helps in the direct tracing of the atomic gas content in nearby and distant galaxies.

Inner Core of the Earth

A recent study says that the inner core of Earth seems to have stopped spinning in the same direction as the rest of the planet.

About the Inner core of the Earth:

- It is the innermost layer of the Earth.
- Structure:
- It is a solid metallic ball made mainly of iron.
- The inner core is solid due to the pressure caused by the weight put on it by the Earth's other top layers.
- It is distinct from the outer core, which is a liquid.

Radius:

- The inner core has an average radius of 1220 km.
- The boundary between the inner and outer cores is located at approximately 5150 km below the surface of the Earth.
- This boundary is called the Lehman Seismic Discontinuity.
- Temperature: Inner core temperatures reach extraordinary levels, estimated to be between 7,200–8,500°F (4,000–4,700°C).

Properties:

- It is predicted to have very high thermal and electrical conductivity.
- The inner core generates its own magnetic field and spins a bit faster than the rest of the planet.

What are the three layers of Earth?

- The earth is made up of three different layers: the crust, the mantle and the core.
- The crust: This is the outside layer of the earth and is made of solid rock, mostly basalt and granite.
- The mantle: It lies below the crust and is up to 2900 km thick. It consists of hot, dense, iron and magnesium-rich solid rock.
- The core: It is the center of the earth and is made up of two parts: the liquid outer core and solid inner core. The outer core is made of nickel, iron and molten rock.

Tethered Drones:

- A tethered drone is an unmanned aerial vehicle tethered to the ground.
- It consists of a base station on the ground and the drone, which is connected to the station through the tether (cable).
- The drone can be operated remotely to perform specific tasks.

Advantages:

- Tethered UAVs are perfect for data capture and telemetry due to the reliability of tethered connections.
- Tethered drones dramatically reduce technical and human error crashes in flight.
- Tethered drones provide a secure line of communication between the ground station and the aircraft.
- It also does not require GPS navigation.
- Many tethered drones have longer flight times compared to free-flying, battery-operated drones.
- Due to the restricted movement of a tethered drone, the operator does not need piloting skills and can mainly focus on their tasks.
- Molecular clouds

Why in News?

- The Researchers have used the James Webb Space Telescope to prove that even complex prebiotic molecules, which are precursors to the building blocks of life, can be formed in the depths of cold, dark molecular clouds.

About Molecular clouds

- What is it? It is an interstellar cloud of gas and dust in which molecules can form, the most common of which is hydrogen (H₂). These clouds have very low temperatures of just 10 to 30 kelvin.
- The size of these clouds can be from a few light years up to 600 light years. Their total mass can reach several million solar masses.
- Molecular clouds with dimensions of more than about 15 light years are also called giant molecular clouds.
- The central regions of these clouds are completely hidden from view by dust. We are able to look into the core of these clouds using radio or infrared wavelengths.
- They are the raw material of stars and planets. These clouds do not last for a very long time.
- After the new stars are born, their solar winds blow away the remaining gas and

dust. Only a fraction, about 10%, of the original material of the molecular cloud gets locked up in stars and planets.

What is a dark nebula (or dark cloud)?

- It is a very dense part of a bigger molecular cloud.
- The light extinction is caused by the high density and the presence of interstellar dust in these clouds.
- These are the regions where new stars are forming. They mainly consist of hydrogen and dust particles which are needed to form new star systems with stars and planets.

What is a Solar Mass?

- A solar mass is the mass of the sun.
- It is 9.9×10^{30} kilograms — about 333,000 Earths.

Groningen Gas Field

- Recently, the Netherlands seeks to shut down Europe's biggest gas field this year because of safety concerns.

About Groningen Gas Field:

The Groningen gas field is natural in Groningen province in the northeastern part of the Netherlands.

- It is the largest natural gas field in Europe.
- This region of Groningen in the Netherlands has a gas field that began operations in 1963.
- During the 1980s, the area saw numerous earthquakes - minor enough to avoid large damage but big enough for local buildings to develop cracks.
- Following these quakes, the Dutch government had earlier said that it would shutter the field in response to local protests.
- In Groningen, the ground subsiding has been caused by extraction alone over several years.
- Such extraction causes rocks to contract - as the pores get to hold fewer and fewer hydrocarbons over time.



Titanosaur

Recently, a group of Indian researchers found rare cases of fossilised dinosaur eggs - an egg within an egg - among 256 newly discovered eggs from the Narmada Valley.



Why in news?

The discovery suggests that Titanosaurs displayed a notable reproductive trait unique to modern-day birds.

Fossilised eggs provide clues on reproductive biology, nesting behaviour and parental care.

This region falls between the easternmost Lametta exposures at Jabalpur in the upper Narmada Valley (central India) and Balasinor in the west in the lower Narmada Valley (western central India), according to the document.

- Lametta exposure is a sedimentary rock formation known for its dinosaur fossils. These sedimentary rocks are mostly exposed along the Narmada Valley.
- The fossil records here are largely concealed by Deccan volcanic flows, which prevents their removal by erosion.

Key facts about the Titanosaur:

- They belong to the sauropod group.
- It is a humongous plant-eating lizard with a long neck and tail.
- A recently discovered 20-meter Ninjatitan Zapata may be the oldest titanosaur to be ever discovered.
- It was found in the Neuquen province of southwest Argentina in 2014.
- It may have lived approximately 140 million years ago at the initial stages of the Cretaceous period.

Megaraptor

Recently, Scientists have found the remains of four species of dinosaurs, including a megaraptor, in an inhospitable valley in Chilean Patagonia for the first time.

About Megaraptor:

- Megaraptor was a large theropod of the Cretaceous Period, 84 to 65 mya.
- megaraptors possessed strong arms that wielded sickle-like claws that could inflict fatal wounds on prey, along with a more lightly built skull and jaws studded with smaller teeth.
- They also had air-filled, bird-like bones.
- Megaraptor was about 25–26 feet (7.5–8 meters) long.
- Incomplete Megaraptor remains were found in 1996 in Northwest Patagonia, Argentina, by paleontologist Fernando E. Novas. Novas named it in 1998.

Cretaceous Period:

- The Cretaceous Period, in geologic time, is the last of the three periods of the Mesozoic Era.
- The Cretaceous began 145.0 million years ago and ended 66 million years ago.
- It followed the Jurassic Period and was succeeded by the Paleogene Period.

What is a Theropod?

- This group includes all the known carnivorous dinosaurs as well as the birds.
- They have a carnivorous dentition and large, recurved claws on the fingers.
- They have a distinctive joint in the lower jaw.

Patagonian Region:

- It is a sparsely populated region located at the southern end of South America, shared by Argentina and Chile.
- The region comprises the southern section of the Andes mountains as well as the deserts, steppes and grasslands east of this southern portion of the Andes.
- Patagonia has two coasts; a western one towards the Pacific Ocean and an eastern one towards the Atlantic Ocean.

Red-Billed Quelea

- Recently, experts have cautioned that the Kenyan government's effort to exterminate the red-billed quelea birds that have infested farms will have unintended negative consequences for other raptors and wild species.

Why in news



- Kenya's government began to kill up to 6 million red-billed quelea birds, the world's most populous bird species which are also known as 'feathered locusts'.
- The preferred method for eradicating pests in Africa has been to spray fenthion, which is an organophosphate pesticide, but scientists have noted that the substance is toxic to people and other non-target organisms.
- Fenthion has been listed in Annex III of the Rotterdam convention which aims to reduce risks from hazardous chemicals in agriculture.

Key facts about Red-Billed Quelea:

- It is a small, short-tailed weaver with a mottled back and a yellow or reddish bill.
- Large flocks are resident and nomadic in arid savanna, grassland, and cultivated areas.

Conservation status:

- IUCN: Least Concerned

Chamundi Hills

The citizens' committee to save Chamundi Hills and its environment has resolved to press for clearance from the heritage committee before the implementation of development works at the hilltop under Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive (PRASHAD).

About Chamundi Hills:

- It is located in the city of Mysore, Karnataka.
- The average elevation is 1,060 meters.
- The famous Sri Chamundeshwari Temple dedicated to the Hindu goddess Chamundeshwari is situated on top of Chamundi hills.
- In the earlier days, the Hill was identified as 'Mahabaladri' in honour of God Shiva who resides in the 'Mahabaleswara Temple'. This is the oldest temple on the hills.
- These hills have been mentioned in the ancient Hindu scriptures such as 'Skanda Purana'.

Sri Chamundeshwari Temple:

- It is dedicated to the Goddess Chamundeshwari (Chamundi), deity of the Mysore Royal Family.
- This temple is about 1000 steps from the foot of the Chamundi hills.
- It is built in the Dravidian style of temple architecture.
- The temple has a quadrangular structure.
- It has an impressive seven-tier tower called 'gopuram' or 'gopura' and an equally imposing entrance which is known as 'dwara'.

What is Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive (PRASHAD) Scheme?

- The Government of India launched the PRASHAD scheme in the year 2014-2015 under the Ministry of Tourism.
- Is a Central Sector Scheme with complete financial assistance by the Government of India.
- This scheme focuses on developing and identifying pilgrimage sites across India for enriching the religious tourism experience.
- It aims to integrate pilgrimage destinations in a prioritized, planned and sustainable manner to provide a complete religious tourism experience. The growth of domestic tourism hugely depends on pilgrimage tourism.

Mahabali Frog

Recently once again a proposal for assigning the official tag for the Mahabali frog to come up before the State Wildlife Advisory Board which was recommended by the Kerala Forest Department.



About Mahabali frog:

- The Mahabali frog is also known as the pignose frog.
- It is endemic to the Western Ghat.
- Habitat: These frogs prefer loose, damp and well-aerated soil close to ponds and ditches or streams.
- Specific Traits of this frog
- Unlike other frogs, it has very short hind

legs, which do not allow it to leap from one spot to another.

- It buries itself all through the year and surfaces only one day to lay eggs.
- Conservation Status:
- IUCN - Near Threatened

Reducing Elephant-Human Attacks

using Bees (RE-HAB) Project

Recently, the Chairman of Khadi and Village Industries Commission (KVIC) distributed live Bee Colonies, Bee-keeping equipment and 200 Bee-Boxes to the trained beneficiaries at Sulia at Dakshina Kannada, Karnataka under the RE-HAB Project.

About the RE-HAB Project



- Under this project, Bee-fences are created by setting up bee boxes in the passageways of elephants to block their entrance to human territories.
- It is a cost-effective way of reducing human-wild conflicts without causing any harm to the animals.
- It is an initiative of the Khadi and Village Industries Commission (KVIC) under the submission of the National Honey Mission.

Key facts of KVIC

- It is a statutory body established under the Khadi and Village Industries Commission Act, of 1956.
- The KVIC is charged with the planning, promotion, organisation and implementation of programmes for the development of Khadi and other village industries in the rural areas in coordination with other agencies engaged in rural development wherever necessary.
- It works under the Ministry of Micro, Small and Medium Enterprises.

Bhoj Wetland

Recently, the National Green Tribunal has directed the Central Pollution Control Board (CPCB) and Madhya Pradesh Pollution Control

Board (MPPCB) to periodically monitor the activities of a cruise vessel polluting the Bhoj wetland in Bhopal, MP.

Why in news?

- The state government has permitted the operation of the cruise with a capacity of 50 passengers, but even broad estimates suggest that human sewage of 19,000 litres will be generated in a week alone.
- The cruise boat operates on diesel, which is a clear violation. It will also directly violate the provisions of the Environment Protection Act, of 1986.

Key features of Bhoj wetland:

- It consists of two contiguous human-made reservoirs, the upper and lower lakes located in the city of Bhopal, Madhya Pradesh.
- The lakes are very rich in biodiversity, particularly for macrophytes, phytoplankton, zooplankton, both natural and cultured fish species, both resident and migratory birds, insects, reptiles and amphibians.
- It is designated as the Ramsar site in 2002.

The Environment Protection Act, 1986:

- It was enacted to provide for the protection and improvement of the environment.
- It empowers the Central Government to establish authorities charged with the mandate of preventing environmental pollution in all its forms and tackling specific environmental problems.
- One of the features of this act is: No person shall discharge or emit or permit to be discharged or emitted any environmental pollutant in excess of such standards as may be prescribed.

Kanha Tiger Reserve

Recently, a new study has found that several alien invasive plants growing together can have a detrimental effect on the biodiversities in tiger habitats in Kanha Tiger Reserve.

Why in news?

- The research paper has deciphered many negative impacts of multiple co-occurring alien plants on biodiversity and what it means for conservation in the era of global changes.
- India's biodiverse ecosystems are threatened by a variety of alien plants like Lantana Camara, Parthenium hysterophorous, and Prosopis juliflora introduced during British colonisation.
- Co-occurring invasive plants like Ageratum conyzoides, and Pogostemon benghalensis cause ecological homogenisation in invaded

regions.

- Multiple alien species together affected soil nutrients, which may have depleted the richness of diverse plants.
- Invasions might slowly deplete the native plant populations and might lead to diseases in the herbivores.

Key facts about Kanha Tiger Reserve:

- It is nestled in the Maikal range of Satpuras in Madhya Pradesh, the heart of India that forms the central Indian highlands.
- This Tiger Reserve stretches over an area of 940 square km in the two districts Mandla and Balaghat in the state of Madhya Pradesh.
- Kanha is best known for its evergreen Sal forests.
- Fauna: Barasingha, Tiger, Leopard, Dhole, Bear, Gaur and Indian Python etc.

Sariska Tiger Reserve (STR)

After successful reintroduction of tigers at the Sariska Tiger Reserve (STR), the forest department is planning to relocate a pair of sloth bears at the reserve.

About Sariska Tiger Reserve (STR):



- Location: It is located in the Aravalli hills in the Alwar district of Rajasthan
- This area was a hunting preserve of the erstwhile Alwar state.
- It was declared as a wildlife reserve in 1955 and then a Tiger Reserve in 1978 under Project Tiger.
- It is the first reserve in the world which successfully relocated tigers.
- Sariska is also famous for old temples, palaces and lakes such as Pandu Pol, Bhangarh Fort, Ajaibgarh, Pratapgarh, Siliserh Lake and Jai Samand Lake.
- Topography: Grasslands, dry deciduous forests, cliffs, and rocky landscapes.
- Flora: salar, kadaya, dhak, gol, ber, Banyan, gugal, bamboo, kair, adusta etc
- Fauna: Bengal tigers, leopard, jungle cat, Indian jackal, chital, chinkara, four-horned antelope, Indian peafowl, grey partridge, Indian peafowl, Indian eagle-owl etc.

Sloth Bear:

- Sloth bears are one of the eight bear species found across the world.
- Scientific name: *Melursus ursinus*
- Distribution: They mainly inhabit the region of India, Nepal, Sri Lanka and Bhutan.
- Features:
- They have long, shaggy dark brown or black fur and curved claws, which are the longest out of any of the bear species.
- It feeds on fruits, ants and termites.
- Conservation Status:
- IUCN: "Vulnerable"
- Indian Wildlife Protection Act, 1972: Schedule 1

Senna Spectabilis

The Nodal Centre for Biological Invasions (NCBI) at the Kerala Forest Research Institute (KFRI) has recently come out with a management plan to eradicate *Senna spectabilis*.

Why in news?

- Based on the results of the experimental study done at the Periyar Tiger Reserve, the plan envisages landscape-level management of the tree.
- The two key factors considered in developing the management protocol were the fast nature of the spread of the tree in natural forests, and the restoration of natural forests based on landscape.

What is *Senna spectabilis*?

- *Senna spectabilis* is an invasive species.
- It is introduced as an ornamental species and for use as firewood from South and Central America.

Key facts about the Periyar Tiger Reserve

- It is nestled in the southern region of Western Ghats in the state of Kerala.
- It is drained by the rivers Mullayar and Periyar.
- Flora: tropical evergreen, semi-evergreen, moist deciduous forests and grasslands.
- Fauna: Tiger, Elephant, Lion-tailed macaque, Nilgiri Tahr etc.

Black-Headed Ibis

The campus of Mangalore University is home to three species that are listed as near-threatened on the red list of the International Union for Conservation of Nature, according to a nine-year study on the avifaunal variety of the area (IUCN).

About Black-Headed Ibis:

- It is a large wader bird with a white body and bare black head and neck. Males and

females look similar and both have greyish tail feathers.



- These are called wader birds due to their adaptability to a wide variety of aquatic environments.
- They are found primarily around wetlands including agricultural fields and occasionally around coastal areas.
- It is found in South- and Southeast Asia from India to the west and as far east as Japan.
- Conservation status
- IUCN Red List: Near Threatened
- The Wildlife Protection Act 1972: Schedule-IV.

Mahadayi river

Government of Goa has sought an early hearing by the Supreme Court in the Mahadayi river sharing issue involving Karnataka.

Why in News?

- The Karnataka government recently received clearance from the Central government for two Detailed Project Reports (DPR) on the Kalasa-Banduri water diversion project on the Mahadayi River.

About Mahadayi river:

- Origin: Mahadayi river rises in the Western Ghats, from the Bhimgad Wildlife Sanctuary in Khanapur taluk of Karnataka's Belagavi district.
- The river travels 35 km in Karnataka; 82 km in Goa before joining the Arabian Sea at Panji (North-Goa).
- Also called Mandovi in Goa, Mahadayi is a rain-fed river that is shared between Karnataka and Goa for their water needs.
- The Salim Ali Bird Sanctuary is located on the island of Chorao in the Mandovi river.
- Major Tributaries: Kalasa Nala, Banduri Nala, Surla Nala, Haltar Nala, Poti Nala, Mahadayi Nala, Pansheer Nala, Bail Nala, Andher Nala.

What is the Kalasa-Banduri project?

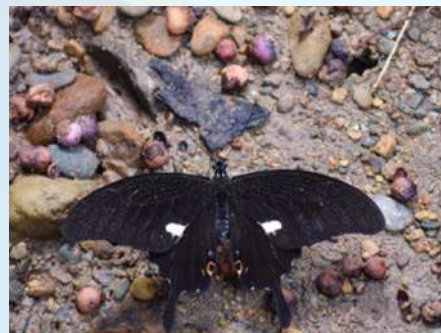
- The project involves the construction of dams and a canal system to divert water

from the Mahadayi River, located in Goa, to the Malaprabha River (a tributary of Krishna river) basin in Karnataka.

- The main goal of the project is to meet the drinking water needs of the districts of Belagavi, Dharwad, Bagalkot, and Gadag in Karnataka.
- The project was proposed by the Karnataka Government in the 1980s, but faced opposition from the state of Goa.

Noble's Helen butterfly

Extremely rare Noble's Helen butterfly was recorded for the first time in India from the Namdapha National Park in Arunachal Pradesh.



Namdapha National Park:

- Location:
- It lies on the international border between India and Myanmar (Burma) within Changlang District in the state of Arunachal Pradesh.
- The Namdapha protected area is located between Dapha Bum ridge of Mishmi Hills, of North Eastern Himalayas and Patkai Ranges.
- It lies in close proximity to the Indo-Myanmar-China trijunction.
- It is the largest protected region of the Eastern Himalayan biodiversity hotspot.
- It was declared a National Park in 1983.
- Climate: It falls within the geographical sub-tropical zone and enjoys the sub-tropical climate.

Biodiversity:

- It is only park in the World to have the four Feline species of big cat namely the Tiger (*Panthera Tigris*), Leopard (*Panthera Pardus*), Snow Leopard (*Panthera Uncia*) and Clouded Leopard (*Neofelis Nebulosa*).
- Hoolock Gibbons (*Hylobates Hoolock*), a highly endangered and only 'ape' species found in India is found in this national park.
- The park is also famous for critically endangered species like the Namdapha flying squirrel.
- Flora: *Sapria himalayana*, *Amentotaxus*,

Cephalotaxus, Pinus merkusii (Sumatran pine) and Abies delavayi (Delavay's Fir) etc.

- Fauna: Snow leopards, clouded leopards, common leopards, tigers, Red Panda, Himalayan bear, dholes, wolves, Hoolock Gibbon, hog deer etc.

Asian golden cat

Officials of the Buxa Tiger Reserve (BTR) in north Bengal said that they were able to capture some pictures of rare and elusive melanistic Asian golden cat in the camera traps.

Why in News?

- According to the experts, these are the first photographic records of the melanistic Asian golden cat, also known as the Temminck's cat, from West Bengal.

About Asian golden cat:

- It is a medium sized cat with relatively long legs.
- Scientific name: *Catopuma temminckii*
- Other names: They are known as the "fire cat" in Thailand and Burma, and as the "rock cat" in parts of China.
- Distribution: The species occurs in Southeast Asia, from Nepal and Tibet to Southern China, Sumatra and India.
- Habitat: It prefers forest habitats that are interspersed with rocky areas, being found in deciduous, tropical and subtropical evergreen rainforests.
- Their fur ranges in color from cinnamon to various shades of brown, and also gray and black (melanistic).

Conservation status:

- IUCN: "Near threatened"
- Wildlife (Protection) Act of India, 1972: Schedule I

Buxa Tiger Reserve (BTR)



- Location: BTR lies in Alipurduar sub-division of Jalpaiguri district of West Bengal.
- Its northern boundary runs along the international border with Bhutan.

- It is the easternmost extension of extreme bio-diverse North-East India & represents the highly endemic Indo-Malayan region.
- The fragile "Terai Eco-System" constitutes a part of this Reserve.
- BTR serves as an international corridor for elephant migration between India and Bhutan.
- The reserve encompasses as many as eight forest types.
- Flora: The main species constitutes trees like Sal, Champ, Gamar, Simul, Chikrasi.
- Fauna: The main species include Asian Elephant, Tiger, Gaur, Wild boar, Sambar, Wild dog (Dhole).

What is Albinism?

Recently a partial albino dhole (*Cuon alpinus*) has been photo-documented in Cauvery Wildlife Sanctuary.

About Albinism:

- Albinism is the result of cells that can't produce melanin, the pigment needed to colour skin, scales, eyes and hair.
- This genetic condition gets passed to offspring when both parents carry the recessive gene. When albinism is present, the animal can appear white or pink.
- The production of melanin occurs within melanocytes, specialized cells that are present but not fully functional in albino mammals.
- Key facts about Dhole
- The dhole or Asiatic Wild Dog is found in three clusters across India namely the Western and Eastern Ghats, the central Indian landscape and North East India.
- The Western and Eastern Ghats is a stronghold regions for dholes.
- Conservation status
- IUCN Red List: Endangered
- The Wildlife Protection Act 1972: Schedule II
- CITES: Appendix II

About Cauvery Wildlife Sanctuary.

- It is extended over three districts, namely, Chamarajanagar, Mandya and Ramanagara in
- The sanctuary provides a vital link between Bannerghatta National Park in the north and BRT Tiger Reserve and Male Mahadev Hills Wildlife Sanctuary in the south.
- The area is drained by three rivers, namely, Cauvery, Arkavathi and Shimsha.
- Flora: The forest is primarily of dry deciduous and scrub types, but a wide range of forest types including moist deciduous, semi-evergreen, evergreen, shola, riverine, Hardwicke forest, etc.

- Fauna: Important animals found in the sanctuary are tigers, elephants, leopards, bison, wild dog etc.

Kawal Tiger Reserve

During the recent Asian Water Bird Census (AWC) 2023, more than 340 birds of various species, were counted in the water bodies within the core area of the Kawal Tiger Reserve.



About Kawal Tiger Reserve:

- Kawal Tiger Reserve is located in North Eastern part of Telangana (Old Adilabad district) having the Godavari river on one side and the Maharashtra border on the other side.
- Government of India declared Kawal wildlife sanctuary as Tiger Reserve in 2012.
- This sanctuary is the catchment for the rivers Godavari and Kadam, which flow towards the south of the sanctuary.
- It is a central Indian Tiger Landscape having – a southern Tropical Dry Deciduous Forest.
- Flora: It consists of predominantly teak and bamboo are found here.
- Fauna: Mammal species that have been sighted include tiger, leopard, Indian gaur, cheetal, sambar, nilgai etc.

What is Soliga ecarinata?

- Recently, the scientific community has named a new genus of wasp after the Soliga community

About Soliga ecarinata:

- The Soliga ecarinata is a new wasp that belongs to the subfamily Metopiinae of the Darwin wasps family Ichneumonidae.
- These are seen only in the Palearctic region, Neotropical and Nearctic regions.
- This is the second genus of this subfamily reported from India and the first from South India.
- Scientists have named this wasp after the Soliga community.

Who are Soligas?

- Soligas are an indigenous tribe of Karnataka, inhabiting the peripheral forest

areas near Biligiri Rangana Hills and Male Mahadeshwara in the Chamarajnar district of Karnataka.

- The Soligas were dependent on hunting and shifting agriculture traditionally.
- They are the first tribal community living inside the core area of a tiger reserve in India to get their forest rights officially recognised by a court of law.

Key facts about the Biligiri Rangan Hills

- It is located northwest of the Western Ghats and on the westernmost edge of the Eastern Ghats.
- The unique geographical positioning and diversity of habitats make BRT one of the richest areas for biodiversity in India.
- The Kapila and Cauvery Rivers flow through these hills.

k-necked stork

- The black-necked stork was recorded for the second consecutive year in Porbandar's Bardasagar reservoir.

About Black-necked stork:

- The black-necked stork is a tall long-necked wading bird in the stork family.
- Scientific name: Ehippiorhynchus asiaticus
- Distribution: It is distributed in the Indian Subcontinent, Southeast Asia and Australia.
- Habitat: They inhabit wetlands, such as floodplains of rivers with large shallow swamps and pools, and deeper permanent bodies of water.

Features:

- They are large birds, measuring 110 to 140 cm in length and weighing 4,000 grams.
- Their wingspan is 190 to 220 cm.
- The male and female birds look alike but female is distinguished by its yellow eye.
- IUCN status: "Near Threatened"

Bardasagar reservoir:

- It is located in the Porbandar district, Gujarat.
- The Bardasagar dam is created to store rain water for agricultural purpose.
- The Bardasagar dam and farms on its periphery are the ideal winter escape for thousands of cranes. Common crane and Demoiselle crane.
- Bardasagar is regular nesting ground for elegant Great crested Grebe like Mokarsagar. The "weed ceremony" and dancing ritual of Great crested Grebe can be seen here

Black Vulture

- An American black vulture was recently spotted in the Delhi NCR region causing a stir amongst birdwatchers and conservationists.

About Black Vulture:

- Black vultures are most abundant at low elevations. They breed in dense woodlands but usually forage in open habitats.
- It is mainly found in the northeastern United States to Peru, Central Chile and Uruguay South America.
- They typically avoid crossing large bodies of water and do not cover long distances.
- Conservation status
- IUCN Red List: Least Concern.

Pallas's cats

Recently researchers have discovered one of the planet's rarest Pallas cats for the first time in the Mount Everest Region.

About Pallas's cats:

- The Pallas's cat, also known as manul, is a small wild cat, perfectly adapted to the harsh conditions typical of its habitat.
- Naturally secretive, it is rarely seen and little known.
- Habitat: Wide but fragmented distribution throughout montane grasslands and steppes of Central Asia.
- Its core populations are in Mongolia and China.
- Conservation status
- IUCN Red List: Least concern.

Kelp forest

A recent study published in the journal Nature revealed that Kelp forests are declining because of climate change.

About Kelp forests:

- Kelp thrives in cold, nutrient-rich waters.
- They attach to the seafloor and eventually grow to the water's surface and rely on sunlight to generate food and energy, kelp forests are always coastal and require shallow, relatively clear water.
- They provide underwater habitats to hundreds of species of invertebrates, fishes, and other algae and have great ecological and economic value.

Distribution of Kelp forest

- Kelp forests have been observed throughout the Arctic by the Inuit. The Canadian Arctic alone represents 10 per cent of the world's coastlines.
- They have adapted to severe conditions. These cool water species have special

strategies to survive freezing temperatures and long periods of darkness and even grow under sea ice.

- In regions with cold, nutrient-rich water, they can attain some of the highest rates of primary production of any natural ecosystem on Earth.
- Between Ellesmere Island and Labrador, as well as along the coasts of Lancaster Sound, Ungava Bay, Hudson Bay, Baffin Bay, and Resolute Bay in Hudson Bay and eastern Canada, kelp forests have been scientifically documented.

Green India Mission

- India is lagging behind in the targets to increase the number and quality of tree- and forest-cover plantations set in the Green India Mission, according to a recent data accessed via the Right To Information Act.

About Green India Mission:

- National Mission for a Green India (GIM) is one of the eight Missions under the National Action Plan on Climate Change (NAPCC).
- GIM was launched in the year 2014 as a Centrally Sponsored Scheme.
- Aim: To respond to climate change by a combination of adaptation and mitigation measures, which would help:
 - enhance carbon sinks
 - adaptation of vulnerable species/ecosystems to the changing climate
 - adaptation of forest-dependant communities

Objectives:

- Increased forest/tree cover on 5 million hectares (mha) of forest/non-forest lands and improved quality of forest cover on another 5 mha (a total of 10 mha).
- Improved ecosystem services including biodiversity, hydrological services and carbon sequestration as a result of treatment of 10 mha.
- Increased forest-based livelihood income of about 3 million households living in and around the forests.
- Enhanced annual CO₂ sequestration by 50 to 60 million tonnes in the year 2020.
- The Mission has clear targets for different forest types and ecosystems.
- Activities under Green India Mission will be implemented under convergence with Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), Compensatory Afforestation Fund Management and Planning Authority (CAMPA) and the National Afforestation Programme (NAP).

Olive Ridley turtle

Recently, Hundreds of Olive Ridley turtles were found dead in their breeding grounds between Kakinada and Antarvedi in the Godavari region of India's east coast.

About Olive Ridley turtle



- The Olive Ridley turtles are the smallest and most abundant of all sea turtles found in the world.
- They are best known for their unique mass nesting called Arribada, where thousands of females come together on the same beach to lay eggs.
- They are carnivores and get their name from their olive-colored carapace, which is heart-shaped and rounded.

Habitat:

- They are mainly found in the warm waters of the Pacific, Atlantic and Indian oceans.
- Odisha's Gahirmatha Marine Sanctuary is known as the world's largest rookery (a colony of breeding animals) of sea turtles.
- Conservation status
- IUCN Red List: Vulnerable
- Wildlife Protection Act, 1972: Schedule 1
- CITES Appendix I

The initiative was taken to protect the Olive Ridley turtle

- Operation Olivia: Every year, the Indian Coast Guard's "Operation Olivia", initiated in the early 1980s, helps protect Olive Ridley turtles as they congregate along the Odisha coast for breeding and nesting from November to December.

Eravikulam National Park

Eravikulam National Park (ENP), a natural habitat for the endangered Nilgiri tahr, reported two tahr births recently.

About Eravikulam National Park:

- Location: Idukki District, Kerala
- Area: 97 sq. Km
- It was declared as a National Park in 1978.
- This is also the land of "Neelakurinji", the flower that blooms once in twelve years.
- The highest peak south of the Himalayas – The Anamudi (2695 meters) is situated in

this park.

- Topography: The major part of the park is covered with rolling grasslands, but several patches of shola forests are also found in the upper part of the valley.

Flora:

- Important flora includes Actinodaphne bourdillonii, Microtropis ramiflora, Pittosporum tetraspermium, Eupatorium adenophorum, Strobilanthus Kunthianus (Neela Kurinji)
- The shola grasslands are exceptionally rich in balsams and orchids including the long thought extinct variety Brachycorythis wightii.

Fauna:

- 29 Species of mammals are found here of which 5 are endemic to the Western Ghats.
- The Nilgiri Tahr, Gaur, Sloth Bear, Nilgiri Langur, Tiger, Leopard, Giant Squirrel and wild dog are common.
- Half the world population of the endangered Nilgiri Tahr lives here.
- 140 species of birds of which 10 are unique to the Western Ghats.
- The Atlas moth, the largest of its kind in the world is seen in this Park.
- More than 100 varieties of butterflies and 20 species of amphibians are also seen here.

Nilgiri Tahr:

- It is a sure-footed ungulate that is endemic to the southern part of Western Ghats.
- Scientific name: Nilgiritragus hylocrius
- It is also the state animal of Tamil Nadu.
- Conservation Status:
- IUCN: "Endangered"
- Wildlife (Protection) Act of India, 1972 : Schedule 1



Chestnut-winged cuckoo?

Chestnut-winged cuckoo was recently being sighted in newer spots around the Chennai city while it makes its way down the Coromandel Coast towards its wintering habitats further south and in Sri Lanka

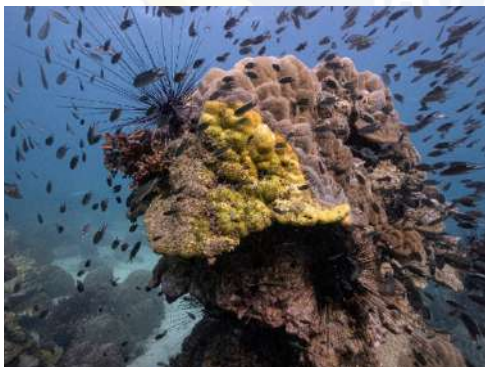


About Chestnut-winged cuckoo:

- Scientific Name: *Clamator coromandus*
- The chestnut-winged cuckoo is a small bird, measuring 35 to 45 cm in length and weighing 60 to 90 grams.
- Distribution: India, Nepal, Bhutan, Bangladesh, Myanmar, southeast China, Laos, Thailand, Vietnam, Sri Lanka, Malaysia, Indonesia and Philippines.
- Habitat : Includes tropical and temperate deciduous/evergreen forests.
- They are brood parasites, laying their eggs in the nests of other birds.
- They are mostly migratory and breed during summer in north India, Nepal, Bhutan, Bangladesh, Myanmar, southeast China, Laos, Thailand and Vietnam.
- They winter in south India, Sri Lanka, Andaman Islands (India), Malaysia, Indonesia and Philippines.
- IUCN Status: “Least Concern”.

What is Yellow Band Disease?

Recently, scientists found that corals of eastern Thailand are getting affected by Yellow band Disease which is killing corals over vast stretches of the sea floor.



About Yellow band Disease:

- Yellow-band disease—named for the colour it turns corals before destroying them—was first spotted decades ago and has caused widespread damage to reefs in the
- There is no known cure for this disease and unlike coral, bleaching corals will not

be restored once they get infected by this disease.

- Scientists believe overfishing, pollution and rising water temperatures because of climate change may be making the reefs more vulnerable to yellow-band disease.

Haiderpur Wetland

- The Union Environment Ministry has recently directed Uttar Pradesh to immediately stop the further draining of the Haiderpur wetland and ensure that dewatering the protected Ramsar site for farming needs takes place only when migratory birds are not nesting at the location.

About Haiderpur wetland:

- It is a human-made wetland that was formed in 1984 by the construction of the Madhya Ganga Barrage on a floodplain of the River Ganga.
- Location: Muzaffarnagar-Bijnor border in Uttar Pradesh.
- It is located within the boundaries of Hastinapur Wildlife Sanctuary.
- This provides habitat for various animal and plant species, including around 30 species of plants, 300 species of birds (102 waterbirds), 40 fish and more than ten mammal species.
- It supports more than 15 globally threatened species, such as the critically endangered gharial and the endangered hog deer, black-bellied tern, steppe eagle, Indian skimmer and gold mahseer.
- It has been recognised as the 47th Ramsar site of India in 2021.

About Ramsar Convention (Convention on Wetlands of International Importance):

- It is an intergovernmental treaty that provides the framework for the conservation and wise use of wetlands and their resources.
- The Convention was adopted in the Iranian city of Ramsar in 1971 and came into force in 1975.
- It is the only global treaty that focuses specifically on wetlands.
- One key instrument of the Convention is its List of Wetlands of International Importance (the “Ramsar List”).

Machu Picchu

The iconic tourist site Machu Picchu in Peru was shut down recently, due to the ongoing anti-government protests that are spreading throughout the South American nation.

About Machu Picchu:

- It is a 15th-century Inca site.
- Location: Machu Picchu is located 50 miles (80 km) northwest of Cuzco, Peru, in the Cordillera de Vilcabamba of the Andes Mountains.
- Machu Picchu is believed to have been built by Pachacuti Inca Yupanqui, the ninth ruler of the Inca, in the mid-1400s.
- It is made up of temples, palaces, terraces, monuments, complexes and walls.
- The city is divided into a lower and upper part, separating the farming from residential areas, with a large square between the two.
- Machu Picchu was abandoned when the Inca Empire was conquered by the Spaniards in the sixteenth century.
- Machu Picchu was rediscovered in 1911 by the American explorer Hiram Bingham.
- It was designated a UNESCO World Heritage site in 1983.

What is the Inca Civilization?

- Inca Civilization flourished in ancient Peru between c. 1400 and 1533 CE.
- It is the largest empire ever seen in the Americas and the largest in the world at that time.
- Inca society was highly stratified.
- The emperor ruled with the aid of an aristocratic bureaucracy.
- Inca technology and architecture were highly developed.
- Their economy was based on agriculture.
- The Inca religion combined features of animism, fetishism, and the worship of nature gods.
- The Inca language Quechua is still spoken by around eight million people in the world.
- The descendants of the Inca are the present-day Quechua-speaking peasants of the Andes, who constitute around 45 percent of the population of Peru.

Snow Leopard

Recently 4 snow leopards were spotted in a rare sighting in Himachal Pradesh.



About Snow Leopard:

- It is found in the mountainous regions of central and southern Asia.
- In India, it is seen in Jammu and Kashmir, Himachal Pradesh, Uttarakhand and Sikkim and Arunachal Pradesh.
- The Hemis National Park has a good presence of Snow Leopard.
- They play a key role as a top predator, an indicator of the health of their high-altitude habitat, and, increasingly, an important indicator of the impacts of climate change on mountain environments.

What is the Conservation status?

- IUCN Red List: Vulnerable
- Under CITES it is listed in Appendix I
- Wildlife (Protection) Act 1972: Schedule I

Genes of Whales

New research in Scientific Reports reveals the genes that likely allowed whales to grow to giant sizes compared to their ancestors

Why in news?

- The findings highlight the role of four genes — GHSR, IGFBP7, NCAPG, and PLAG1 — and suggest that they promote large body sizes.
- The researchers performed molecular evolutionary analysis on nine candidate genes: five genes from the growth hormone, and four genes associated with increased body size in hoofed animals. They assessed these genes in 19 species of whale.

The role of four genes:



- GHSR is a gene involved in releasing growth hormone through the pituitary gland, body weight, energy metabolism, appetite and fat accumulation. It also is associated with controlling cell proliferation and programmed cell death. Tumors essentially are formed by runaway cell growth.
- IGFBP7 is a gene involved in promoting cell growth and division. There is evidence it acts as a cancer suppressor in prostate, breast, lung and colorectal tumors.
- NCAPG, a gene associated with growth in

people, horses, donkeys, cattle, pigs and chickens, is linked to increased body size, weight gain, cell proliferation and cell life cycles.

- PLAG1, a gene associated with body growth in cattle, pigs, and sheep, is involved in embryo growth and cell survival.

Whales:

- Cetaceans, the marine mammal group encompassing whales, dolphins and porpoises, evolved around 50 million years ago from vaguely wolf-like land-based ancestors that belonged to a mammalian assemblage called artiodactyls that includes today's cows, pigs, sheep and many others.
- Basilosaurus, a toothed apex predator from about 40 million years ago, was the largest-known early whale. The baleen whale lineage dates to roughly 36 million years ago, starting modest in size.
- Blue whales can reach about 100 feet (30 meters) long, fin whales about 80 feet (24 meters), sperm and bowhead whales about 60 feet (18 meters), humpback and right whales about 50 feet (15 meters) and gray whales about 45 feet (13.5 meters).

Ballavpur Wildlife Sanctuary

- Nature enthusiasts have voiced their concern over the recent decline in the number of migratory birds visiting the Ballavpur Wildlife Sanctuary.

About Ballavpur Wildlife Sanctuary:

- It was established in 1977.
- It is also known as Deer Park.
- Location: It is located near Santiniketan in Bolpur subdivision of Birbhum District of West Bengal.
- Area: 200 hectares
- Elevation: It has an average elevation of 56 meters.
- Flora: The sanctuary has dense local vegetation of Sal, Akashmoni, Sishoo, Cashewnut, Amlaki, Bahera and Haritaki.
- Fauna: The sanctuary has a deer conservation park which is home to a large number of deer including Cheethals (Spotted Deer) and the Blackbucks. Other animals include jackals, foxes and a variety of water birds.
- It is home to three large lakes which hosts a large number of migratory birds every year.

Amrabad Tiger Reserve

The Forest department of Telangana will soon launch two more safari tours into the Amrabad Tiger Reserve in Nagarkurnool district, in an effort to promote eco-tourism

About Amrabad Tiger Reserve:



- The Amrabad Tiger Reserve which is part of the Nallamala Forest track has rich Biological Diversity with several endemic species of flora and fauna.
- This Forest tract is home to the largest number of Tigers in Telangana State.
- The hilly terrain of this Tiger Reserve with deep valleys and gorges forms the catchment of the Krishna River.
- This Tiger Reserve (ATR) is one of the largest tiger reserves in India that extends about 2611.4 Sq Km over Nagarkurnool and Nalgonda districts of Telangana State.
- This is the second-largest Tiger Reserve in terms of core area but the sixth-largest tiger reserve in terms of total area among 51 Tiger Reserves in India.
- The reserve was notified as a sanctuary in the year 1983 and after the bifurcation of Telugu States in 2014, it was declared as Amarabad Tiger Reserve.
- It lies in the three forest divisions of Amarabad, Achampet in Nagarkurnool district, and Nagarjunsagar division in Nalgonda district.
- Major reservoirs like the Srishailam Dam and Nagarjunsagar Dam are fed by the river Krishna and its several perennial streams that originate in the Tiger Reserve.

Painted Bat

Recently, a rare orange-coloured bat, also known as 'painted bat' was spotted at a banana plantation in Parali Bodal village of Chhattisgarh's Kanger Valley National Park in Bastar.



About Painted bat:

- These are often found in unusual roosting sites such as suspended nests of weaver

finches and sunbirds, and banana leaves, these bats have been known to roost in pairs.

- It is an aerial hawk, catching insects mid-flight.
- It is generally found in Bangladesh, Brunei, Burma, Cambodia, China, Indonesia, Malaysia, Nepal, Sri Lanka, Thailand and Vietnam.
- Conservation status:
- IUCN: Near Threatened

Key facts about Kanger Valley/ Ghati National Park:

This National Park derived its name from the Kanger river, which flows in its length.

- Flora: This park is a typically mixed humid deciduous type of forest, in which the Sal, Saugan, teak and bamboo trees are available in abundance.
- Fauna: The most popular species in this area is Bastar Maina which emulates everyone with its human voice.
- It is home to exceptional caves and is famous for its amazing geological structures of Stalagmites and Stalactites.
- Also, Tirathgarh Waterfall is located in this National Park.

Yangtze Finless Porpoise

Scientists recently found that checking sand mining in Dongting lake in China can help the rebounding of the population of the Yangtze finless porpoise.

Why in news?

- Previous reports had shown the porpoise were pushed out of certain stretches of their habitat due to sand mining.
- The Chinese government announced a crackdown on illegal sand mining along the entire length of the river Yangtze.

Key facts about Yangtze finless porpoise

- The Yangtze River, the longest river in Asia is home to these porpoises.
- Yangtze finless porpoise is known for its mischievous smile and has a level of intelligence comparable to that of a gorilla.
- These are very small compared to whales and slow-moving inhabitants
- These are good indicators of the health of their environment.
- Conservation status:
- IUCN Red List: Critically Endangered.

Bhitarkanika National Park

The recent census report of birds released by the forest department in Odisha said that the number of migratory birds in Bhitarkanika National Park has risen to 1,39,959 this winter

compared to last year's count of 1,38,107 birds.

Why in News?

- The report highlighted that the number of bird counts increased but the diversity of species has decreased compared to last year. This year the Bhitarkanika National Park saw 140 species of birds compared to 144 last year

Key facts about Bhitarkanika National Park

- Bhitarkanika National Park is located in the Kendrapara district of Odisha.
- It is India's second-largest mangrove ecosystem after the Sunderbans.
- This National Park is a network of creeks and canals which are inundated with waters from rivers Brahmani, Baitarani, Dhamra and Patasala forming a unique ecosystem.
- It is home to the largest congregation of endangered Salt Water Crocodiles in the country.
- The Gahirmatha Beach which forms the boundary of the sanctuary in the east is the largest colony of the Olive Ridley Sea Turtles.
- Bhitarkanika is also home to eight varieties of Kingfisher birds which is also a rarity.

What is Sedge Warbler?

- Birders and ornithologists recently in the State of Kerala spotted a migratory bird the Sedge Warbler.

About Sedge Warbler:



- The sedge warbler is a medium-sized warbler of marshes, reedbeds and wetlands that can be spotted singing from perches on reeds and willow bushes.
- The male sedge warbler introduces random phrases into its repertoire which is known for mimicking.
- The male warbler never sings the same song twice; he attracts more mates the more phrases his song has.
- These are insectivores in nature.
- Conservation status:
- IUCN Red List: Least concern.

Indian Star Tortoise

- A recent study on the Indian star tortoise distributed across South Asia has revealed that the genetic diversity of the species as well as its habitat has suffered major losses because of rampant illegal trade.

Why in news?



- The research report said the species is facing twin challenges of a threat to its habitat at one level and loss of its genetic diversity at the other.
- It calls for a proper conservation strategy to combat the fragmented distribution and explicitly recommends intensive genetic screening of founder individuals or isolated adult colonies by implementing scientific breeding.

Key facts about the Indian star tortoise:

- Indian star tortoise is found in the central and Southern parts of India, in West Pakistan and Sri Lanka.
- Conservation status:
- IUCN Status: Vulnerable
- Convention on International Trade in Species (CITES): Appendix I
- Wild Life Protection Act 1972: Schedule IV
- Threat: The highly fragmented habitat of the species, is greatly influenced by an increased level of urbanisation and agricultural practices throughout its range.
- Conservation Efforts:
- At the 18th Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES CoP18) held in 2019, Indian Star Tortoise was up-listed to Appendix I from Appendix II owing to its over-exploitation.

White Tufted Royal Butterfly

Recently, a team of butterfly observers and researchers have found White Tufted Royal Butterfly, a rare butterfly species at Kalliyad in Kannur district of Kerala.



About White Tufted Royal Butterfly:

- White Tufted Royal Butterfly is a rare species and is protected under Schedule 2 of the Wildlife Protection Act.
- The wingspan of the butterfly is just 32-40 mm.
- Its larvae feed on *Scurrula parasitica*, a plant belonging to the Loranthaceae family.
- The species had been previously spotted in Agasthyakoodam in 2017 and the Shendurney Wildlife Sanctuary in 2018.

Kuno Palpur National Park

- Recently, the Madhya Pradesh CM said that more cheetahs would be introduced to the Kuno Palpur National Park soon.

Why in news?

- 8 cheetahs arrived from Namibia and were released into Kuno National Park on 17th September 2022 by the Prime Minister of India.

Key Facts about Kuno Palpur National Park:

- Location: Kuno National Park lies in Sheopur district of Madhya Pradesh in Central India near the Vindhyan Hills.
- With an area of 748 sq. km, the park is located within the larger Kuno Wildlife Division.
- Initially established as a wildlife sanctuary, it was only in 2018 that the government changed its status into a national park.
- Named after the Kuno River (One of the main tributaries of the Chambal River) that cuts across it, Kuno is primarily a grassland region.
- Flora and Fauna: The protected area of the forest is home to the jungle cat, Indian leopard, sloth bear, Indian wolf, striped hyena, golden jackal, Bengal fox and dhole, along with more than 120 bird species
- Kuno National Park was selected under 'Action Plan for Introduction of Cheetah in India'.

Project Cheetah:

- World's first inter-continental large wild carnivore translocation project.
- Project Cheetah was approved by the Supreme Court of India in January 2020 as a pilot programme to reintroduce the species to India.
- Close to 50 cheetahs will be introduced into the wild over the next five years.

What is Blackbuck?

A recent study conducted by the Indian Institute of Science (IISc) has shed light on how blackbuck in India has fared in the face of natural and human-induced challenges to their survival.

Why in news?



- Researchers found that an ancestral blackbuck population first split into two groups: the northern and the southern cluster. The eastern cluster even though geographically close to the northern cluster seems to have emerged from the southern cluster.
- The study shows that despite all odds, male blackbuck appears to disperse more than expected, thus contributing to gene flow in this species.
- Females, on the other hand, appear to stay largely within their native population ranges, which the researchers inferred from unique mitochondrial signatures in each population.
- The data also showed an increasing trend in blackbuck population numbers as compared to the recent past.

Key features of blackbuck

- It is a species of antelope native to India and Nepal.
- While males have corkscrew-shaped horns and black-to-dark brown coats, the females are fawn-coloured.
- The animals are mainly seen in three broad clusters across India the northern, southern, and eastern regions.
- It is widespread in the states of Rajasthan, Gujarat, Madhya Pradesh, Tamil Nadu, Odisha, and other areas throughout peninsular India.

- Protection status:
- IUCN Red List: Least concerned.
- Wildlife Protection Act of 1972: Schedule I
- CITES: Appendix III
- Protected areas in India:
- Gir National Park, Gujarat
- Kaimur Wildlife Sanctuary, Bihar
- Kanha National Park, Madhya Pradesh
- Ranthambore National Park, Rajasthan
- Ranabennur Blackbuck Sanctuary, Karnataka
- Vallanadu Wildlife Sanctuary, Tamil Nadu

Spot Bellied Eagle Owl

Spot Bellied Eagle Owl was recently spotted in Seshachalam forest of Andhra Pradesh for the first time



About Spot Bellied Eagle Owl:

- Scientific name: *Bubo nipalensis*
- Spot Bellied Eagle Owl is also known as the forest eagle-owl.
- They are large, very powerful and bold predatory birds.
- It measures about 50 to 65 cm in length and weighs 1500 to 1700 grams.

Distribution:

- It is a forest-inhabiting species found in India, Sri Lanka, Nepal, Bhutan, Bangladesh, Myanmar, China, Thailand, Laos, Cambodia and Vietnam.
- These species occur in altitudes from 300 to 3000 meters.

Conservation:

- IUCN Status: Least Concern
- Wildlife (Protection) Act, 1972: Schedule IV
- CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora): Appendix II.

Seshachalam Hills:

- The Seshachalam Hills are a part of the Eastern Ghats in Andhra Pradesh.
- They are a group of seven hills namely, Seshadri, Neeladri, Garudadri, Anjanadri, Vrishabhadri, Narayanadri and Venkatadri.

- The ranges were formed during the Precambrian era (3.8 billion to 540 million years ago).
- The Seshachalam hills consist of sandstone and shale along with limestone.
- Tirupati which is considered as one of the major Hindu pilgrimage towns in India is located in the hills.
- The Srivenkateshwara National Park is also located in this mountain range.
- Seshachalam was designated as a Biosphere Reserve in the year 2010
- It has large reserves of red sandalwood.

Greater Scaup?

- A rare species of duck, Greater Scaup, was recently sighted in Loktak lake in Manipur's Bishnupur district after a gap of over 90 years.

About Greater Scaup:

- The Greater scaup is locally known as Sadangman.
- It is a medium-sized diving duck species that belongs to the family of Anatidae.
- The greater scaup species is distributed in Asia, Europe, the United States and Canada. It is a rare visitor to the Indian Subcontinent.
- The breeding scaup inhabits shallow, freshwater lakes, pools and rivers with grassy shorelines.
- The greater scaup species are highly migratory, breeding near arctic regions and migrating to the warmer south from August onwards.
- Conservation status:
- IUCN Red List: Least concern

Key facts about Loktak Lake

- Loktak Lake is a freshwater lake in the Manipur state.
- It is famous for unique floating islands called Phumdis with multiple plant species.
- The Keibul Lamjao National Park located on the Loktak Lake is the last natural habitat of the "Sangai" the dancing deer of Manipur.
- The lake is designated as a wetland of international importance under the Ramsar Convention.

Asian Waterbird Census 2023

A recent detailed assessment of the survey conducted in the northern parts of Alappuzha, as part of the Asian Waterbird Census 2023 revealed that a shift in migration patterns of waterbirds appears to be taking place.

Why in news?

- In the recent survey, it is revealed that Duck species sighted in previous surveys were missing this time.
- The most shocking aspect was that duck species like Northern Shoveler, Common teal and Eurasian wigeon, sighted in the previous surveys, were totally missing this time around.

Key facts about the main birds which were sighted during the census:

- Oriental darter
- It is mainly found in freshwater rivers and ponds.
- Conservation status
- IUCN: Near Threat
- Cattle egret
- Conservation status
- IUCN: Least Concern
- Spot-billed Pelican
- It breeds in southern Asia from southern Iran across India east to Indonesia.
- Conservation status
- IUCN: Near Threatened
- Wildlife (Protection) Act, 1972: Schedule IV

Neelakurinji

Recently, The Ministry of Environment, Forest and Climate Change (MoEF) has listed Neelakurinji under Schedule III of the Wildlife (Protection) Act, 1972, including it on the list of protected plants.

Why in news?



- According to the recent orders, those who uproot or destroy the plant will invite a fine of ₹25,000 and three years imprisonment. The cultivation of this and its possession is not allowed,
- Neelakurinji has been included on the list when the Centre expanded the earlier protected list of six plant species to 19.

About Neelakurinji

- Neelakurinji is scientifically known as Strobilanthes Kunthaus,
- It is a shrub that grows in the shola forests of the Western Ghats in South India.

- The plant is named after the famous Kunthi River which flows through Kerala's Silent Valley National Park, where the plant occurs abundantly.
- It is found at an altitude of 1,300-2,400 metres.
- This flower blooms once in 12 years as the pollination of flowers needs a longer period.
- It is mainly found in the states of Kerala, Tamil Nadu, and Karnataka.

The Wildlife (Protection) Act, 1972

- This act was enacted for the protection of plants and animal species.
- Also, this act established schedules of protected plant and animal species; hunting or harvesting of these species was largely outlawed.

Indian Skimmers

Recently around 250 Indian Skimmers were sighted in Coringa Wildlife Sanctuary in a day during the Asian Waterbird Census-2023.

About Indian Skimmers:

- It is found in the coastal estuaries of western and eastern India.
- It occurs primarily on larger, sandy, lowland rivers, around lakes and adjacent marshes and, in the non-breeding season, in estuaries and coasts.
- About 20% of the total population of fewer than 2,500 birds nest along river Chambal.
- Protection status:
- IUCN: Endangered

Key facts about the Coringa Wildlife Sanctuary:

- It is a wildlife sanctuary and estuary situated in Andhra Pradesh.
- Between this sanctuary area and the sea Hope Island blocks the direct confluence of the sea and Godavari. As a result, about 40% of the sanctuary is only sea backwaters and the rest of the area is intermingled with creeks and gets inundated with tidal waters.
- Flora: It has extensive mangrove and dry deciduous tropical forests. It is the second-largest stretch of mangrove forests in India.
- Fauna: It is home to the critically endangered white-backed vulture and the long-billed vulture.

Gandak River

Two shilas (stones), around seven feet long and weighing over 350 tonnes, from Nepal's Kali Gandaki river are set to arrive at Ayodhya, where they will be used to carve the idol of Lord Ram, said the priests from Janaki temple (Janakpur), Nepal.

About Gandak River

- It is one of the major rivers in Nepal and India.
- It is also known as the Kali Gandaki and Narayani after the confluence with Trisuli river in Nepal.
- It is a north bank tributary of the Ganga in India.
- Origin: It rises at 7620 m in Tibet near the Nepal border.
- It flows southwest into India and then turns southeast along the Uttar Pradesh-Bihar state border and across the Indo-Gangetic Plain.
- It enters the Ganga River opposite Patna.
- The largest hydroelectricity project in Nepal is located along this stretch of the river.

Nicobar long-tailed Macaque

- Recent research in Great Nicobar Island (GNI) shows that habitat alterations can increase human-wildlife conflict, adversely affecting the populations and health of the animals and leaving them vulnerable.

About Nicobar long-tailed macaque:



- It is a subspecies of the larger family of long-tailed macaques found across South-East Asia.
- This particular subspecies is distinct from its cousins in appearance, behaviour and geographical location.
- The macaque is found in only three of the Nicobar islands—Katchal, Little Nicobar, and Great Nicobar—with GNI being home to the largest population.
- Protection status
- IUCN: Vulnerable

Key facts about Great Nicobar Island(GNI)

- GNI lies between the Bay of Bengal and the Andaman Sea in a tectonically sensitive zone. The largest of the Nicobar group of islands at 910 square kilometres.
- Great Nicobar is home to two national parks; Campbell Bay and Galathea National Parks.
- Tribal groups: The Shompen and Nicobarese tribal peoples reside on this Island.



REPORTS AND INDICES

All India Survey on Higher Education (AISHE) 2020-2021

Ministry of Education recently released All India Survey on Higher Education (AISHE) 2020-2021

- About All India Survey on Higher Education (AISHE):
- It is conducted by the Ministry of Education since 2011.
- Coverage: It covers all higher educational institutions located in Indian Territory and imparting higher education in the country.

Objectives:

- To identify and capture all the institutions of higher learning in the country.
- Collect the data from all the higher education institutions on various aspects of higher education.
- The survey collects detailed information on different parameters such as student enrollment, teacher's data, infrastructural information, financial information etc

Highlights of AISHE 2020-2021:

- For the first time, in AISHE 2020-21, higher educational institutions have filled data using entirely online data collection platform through the Web Data Capture Format (DCF) developed by Department of Higher Education through the National Informatics Centre (NIC).

Key Findings:

- The total number of Universities / University like institutions registered is 1,113, Colleges 43,796 and Standalone Institutions 11,296.
- Number of Universities has increased by 70, number of Colleges has increased by 1,453, in 2020-21 over 2019-20.
- Enrollment in higher education increases to 4.14 crore, crossing the 4 crore mark for first time; increase of 7.5% from 2019-20 and 21% from 2014-15.
- Female enrollment reaches 2 crore mark, increase of 13 Lakh from 2019-20.
- Gross Enrolment Ratio (GER) has improved from previous year for all social groups.
- Enrollment in Distance Education has increased by 7% in 2020-21 from 2019-20.
- Gender Parity Index (GPI) has increased from 1 in 2017-18 to 1.05 in 2020-21

- Total number of faculty/teachers increases by 47,914 from 2019-20.

Annual Status of Education Report (ASER)

The ASER Report 2022 released recently revealed that almost all (98.4%) students in the age bracket of 6-14 years are now enrolled in schools.

About ASER Survey:

- It is a citizen-led household survey that provides estimates of the enrolment status of children aged 3-16 and the basic reading and arithmetic levels of children aged 5-16 at the national, state and district level.
- ASER is published by NGO Pratham, and the survey has been conducted every year since 2005.
- The survey reaches children in the age group of 3-16 in almost all rural districts of India.
- It uses household rather than school-based sampling.

Highlights of ASER 2022:

- In ASER 2022 Survey, 7 lakh candidates from 19,060 schools in 616 districts were surveyed to calculate the learning outcomes post-pandemic on school children.
- Enrollment has gone from 97.2 per cent in 2018 to 98.4 per cent in 2022.
- As many as 72.9 per cent of the surveyed students go to government schools.
- In only three states, the number of girls not going to school is above 10% – Madhya Pradesh (17%), Uttar Pradesh (15%), and Chhattisgarh (11.2%).
- Nationally, children's basic reading ability has dropped to pre-2012 levels, reversing the slow improvement achieved in the intervening years.
- In both government and private schools, only 20.5% students of Class 3 can read, compared to 27.3% in 2018.
- The proportion of Class 5 students who can read has dropped to 42.8% in 2022, compared to 50.5% in 2018.

National Coal Index

Recently, Coal Ministry Offered relaxation in the Revision of the Performance Bank Guarantee and extended Bid due date for the Commercial

Coal Block auction up to January 30.

Why in news?

- During the launching of the sixth-round commercial coal mines' auction for 141 coal mines, the ministry of Coal decided to annually revise the Performance Bank Guarantee (PBG) based on the National Coal Index (NCI) for April at the beginning of the year 2023.

What is National Coal Index?

- The NCI is a price index which reflects the change in the price level of coal on a particular month relative to the fixed base year.
- This price index combines the prices of coal from all the sales channels- Notified Prices, Auction Prices and Import Prices.
- It has been rolled out on 4th June 2020 and the aim is to have an index that will truly reflect the market price.
- The base year is FY 2017-18.
- The concept and design of the Index as well as the Representative Prices have been developed by the Indian Statistical Institute, Kolkata.

What is a coal auction?

- An auction-based regime was introduced in 2014, which allowed private sector participation. The sector has recently been opened for commercial mining by the private sector.



World Chess Blitz Championship

- Former World rapid champion K. Humpy produced a superlative performance to claim India's first-ever silver medal from the World blitz chess championship that concluded in Almaty, Kazakhstan.

World Rapid and Blitz Chess Championship 2022:

- The International Chess governing body FIDE organises World Rapid and Blitz chess championship at the end of the year. This year it was held in Kazakhstan's capital Almaty from 26-30 December 2022.

Khelo India Youth Games-2022

- Mascot, torch and anthem of Khelo India Youth Games recently unveiled in Bhopal.

Why in news?



- Madhya Pradesh is hosting the fifth edition of the Khelo India Youth Games. In this sports event, to be held from the 30th of January to the 11th of February, six thousand players will show their sports skills in eight different cities for 13 days.
- For the first time water sports namely Kayaking Canoeing, Canoe Slalom and Fencing will be part of this edition of Khelo India Games.

Khelo India Youth Games

- Objective: To revive the sports culture in India at the grass-root level by building a strong framework for all sports played in our country and establish India as a great sporting nation.
- It is an annual event. The first edition was held in 2018 in Delhi in which Haryana

won 38 golds.

- Talented players identified in priority sports disciplines at various levels by the High-Powered Committee will be provided annual financial assistance of INR 5 lakh per annum for 8 years.

Y20 Summit?

- Youth Affairs and Sports Minister Anurag Singh Thakur will launch the themes of the Y20 summit, logo, and website in New Delhi on January 6 in the curtain raiser event of Y20 Summit India.
- About Y20 Summit:
- The Y20 is the official youth engagement group for the G20 (Group of 20), the forum for the world's largest and most advanced economies.
- The Y20 is a process which brings together young leaders from across the globe, to discuss and debate global challenges and agree policy recommendations they would like to see G20 leaders take forward.
- The list of policy recommendations is known as a communiqué, which is announced publicly at the Y20 Summit and presented to world leaders as part of the official G20 summit.
- India is hosting the Y20 summit for the first time.
- In Youth 20 Engagement Group, India's key focus is to bring young leaders from all across the globe together and discuss ideas for a better tomorrow and draft an agenda for action.
- The activities to be undertaken by Y20 during India's presidency will focus on global youth leadership and partnership.
- In a run-up to the final Youth-20 Summit, for the next eight months, there will be Pre summits on the five Y20 themes along with various discussions and seminars at different Universities across the country.

Koustav Chatterjee becomes India's 78th Grandmaster

- Nineteen-year-old Kolkata-based chess player, Koustav Chatterjee became India's 78th Grandmaster. He is also the tenth GM from West Bengal
- He is also the tenth GM from West Bengal.

Koustav earned his first GM norm in October 2021 at a Grandmasters' chess tournament in Bangladesh.

- He got his second GM norm at the Asian championship in the first week of November 2022.
- He crossed FIDE rating 2500 in August. Koustav is in the joint-lead with GM Abhijeet Gupta at the National Senior Chess Championship with a score of 8/10 after 10 rounds.

Pranesh M became India's 79th Grandmaster

- Pranesh M became India's 79th Grandmaster, having completed his three norms prior to this event. IM Pranesh M emerged as the winner of the Rilton Cup, the first tournament of the FIDE Circuit.
- The 16-year-old from India, seeded 22nd, made a clean sweep of the field in Stockholm, winning eight games and finishing a full point ahead of IM Kaan Kucuksari (Sweden) and GM Nikita Meshkovs (Latvia).

Indian Tennis star Sania Mirza announced her retirement.

- Indian Tennis Player Sania Mirza (36-year-old), the former doubles World No. 1, has confirmed her retirement from professional Tennis
- Indian Tennis Player Sania Mirza She announced that the Dubai Tennis Championships, a Women's Tennis Association (WTA) 1000 event in Dubai in February 2023 will be her last match. Prior to her last appearance, she is going to play in women's doubles at the Australian Open in 16 to 29 January 2023 alongside Kazakhstan's Anna Danilina

Novak Djokovic saves championship point to beat Korda to Adelaide title

- Novak Djokovic has defeated America's Sebastian Korda in a nerve-wracking final to win the Adelaide International men's singles title.
- About 2023 Adelaide International 1:
- It is the 3rd edition for women and the 2nd edition for men. It was held at the Memorial Drive Tennis Centre from January 1-8, 2023. The prize money for the ATP (Association of Tennis Professionals) is \$672,735, and for WTP (Women's Tennis Association) is \$826,837. It is a tennis tournament on the 2023 ATP Tour and the 2023 WTA Tour. It is a combined ATP Tour 250 and WTA 500

tournament.

Surya Kumar Yadav becomes fastest player to reach 1,500 runs in T20I.

- Suryakumar Yadav has become the fastest player to reach 1,500 runs in T20 International cricket in terms of balls faced. He took only 843 balls to reach this landmark.
- However, he is the third-fastest batter to reach the 1,500-run mark in terms of innings.
- The fastest batters to reach this landmark are Indian batter Virat Kohli, KL Rahul, Australian veteran Aaron Finch and Pakistan skipper Babar Azam, who all took 39 innings to score 1,500 runs in T20 International cricket. Pakistan wicketkeeper-batter Mohammed Rizwan reached the milestone in 42 innings and Suryakumar did so in 43 innings.

Khashaba Dadasaheb Jadhav 97th birth Anniversary, wrestler honoured by Google Doodle

- Khashaba Dadasaheb Jadhav honoured by Google Doodle: Khashaba Dadasaheb Jadhav, Indian wrestler, celebrated his 97th birthday on January 15 with Google Doodle
- Jadhav, a.k.a. "pocket dynamo," is renowned for becoming the first athlete from an independent India to take home an Olympic medal

Belinda Clark becomes first women cricketer to have statue cast at Sydney Cricket Ground

- Australia's Belinda Clark has become the first female cricketer to have a statue cast in her honour, a bronze sculpture of the trailblazing former captain unveiled outside Sydney Cricket Ground
- Clark played 15 tests and over 100 limited overs matches between 1991-2005, and became the first cricketer to score a double-hundred in one-day internationals when she made an unbeaten 229 against Denmark in 1997

Laxman Rawat Won National Sports Club of India Snooker Open Crown 2023

- Laxman Rawat of PSPB overcame fellow PSPB challenger Aditya Mehta 9-6 in a best-of-17-frame final. Laxman Rawat of PSPB emerged victorious in the 'Baulkline' NSCI All India Snooker Open
- Previously, Laxman Rawat won the runner-

up in the last edition of the All India Snooker Open losing to Sourav Kothari in the finals. This win marks Laxman Rawat's first major title after 2 to 3 years.

An Seyoung Won Women's singles final at India Open Badminton Championship

- Korean sensation An Seyoung wins the women's singles final in the India Open Badminton Championship held at D. Jadhav Indoor Stadium in New Delhi. An Seyoung defeated the World No. 1 Japanese Akane Yamaguchi 15-21, 21-16, and 21-12 at the India Open Badminton Championship

Thai shuttler Kunlavut Vitidsarn wins India Open Badminton title.

- Shuttler Kunlavut Vitidsarn from Thailand won the India Open Badminton Championship 2023 by defeating Denmark's Viktor Axelsen in the men's singles by 22-20, 10-21 and 21-12. In the Women's Singles category, An Seyoung of South Korea won the title by defeating Japanese Akane Yamaguchi by 15-21, 21-16, and 21-12



Rani Velu Nachiyar

- Recently, The Prime Minister of India paid tributes to Rani Velu Nachiyar on her birth anniversary.



About:

- Rani Velu Nachiyar was born on January 3, 1730, in Ramanathapuram, Tamil Nadu, India.
- She was the first queen to have ever actively opposed British rule and fought against colonial rulers many years before the Sepoy Mutiny.
- She is known by Tamils as
- She was trained in war to match weapons usage, martial arts like Valari, Silambam (fighting using the stick), horse riding and archery.
- She was a scholar in many languages and she had proficiency in languages like French, English and Urdu.
- She married the king of Sivagangai named Muthuvaduganathaperiya Udaiyathevar, with whom she had a daughter. When her husband was killed by British soldiers, she was drawn into battle.
- War against the British: In collaboration with Hyder Ali and Gopala Nayaker, she waged a war against the British and emerged victoriously
- She granted powers to the Marudu brothers to administer the country in 1780.

Savitribai Phule

- Recently, The Prime Minister has paid homage to Savitribai Phule on her birth anniversary.

About:



Who Is Savitribai Phule?

- A pioneer who challenged oppressive social norms in her quest for women's education, equality and justice, Savitribai Phule is formally recognised as India's first woman teacher.
- A Dalit woman from the Mali community, Savitribai was born on January 3, 1831, at Naigaon in Satara District.
- In 1840, at the tender age of 9, she was married to Jyotirao (also known as Mahatma Jyotiba Phule one of the leading social reformers and anti-caste activists of India) is said to have educated her at home and later on admitted her to a teacher's training institution in Pune.

The Establishment Of India's First Girls' School

- At a time when education was limited mostly to the upper-class, affluent men, and women were not deemed eligible for going to school, the Phules established a girls' school in Bhidewada, Pune, in 1848. This was the first girls' school in India.

Phule's role as a social reformer

- In 1852, she established a women's rights advocacy organisation, Mahila Seva Mandal.
- In 1860, the Phule's organised a barber's strike against shaving the hair of widowed women.
- Along with Jyotirao, Savitribai started the Balhatya Pratibandhak Griha ('Home for

the Prevention of Infanticide’) for pregnant widows facing discrimination.

- Savitribai Phule also advocated inter-caste marriages, widow remarriage, and eradication of child marriage, sati and dowry systems, among other social issues.
- In 1873, the Phules set up the Satyashodhak Samaj (‘Truth-seekers’ society’), a platform open to all, irrespective of their caste, religion or class hierarchies, with the sole aim of bringing social equity.

Literary works

- Savitribai Phule published her first collection of poems, called Kavya Phule (‘Poetry’s Blossoms’), at the age of 23 in 1854.
- She published Bavan Kashi Subodh Ratnakar (‘The Ocean of Pure Gems’), in 1892.

Satyendra Nath Bose

- The 129th birth anniversary of Satyendra Nath Bose has been celebrated recently



About:

- Satyendra Nath Bose was a Mathematician and physicist from India. Born on January 1, 1894, Bose collaborated with Einstein to develop what we now know as the Bose-Einstein statistics.
- He was appointed to the position of Reader in Physics at the University of Dhaka. It was here that he made his most significant contributions to physics.
- Bose designed equipment for setting up an X-ray crystallography laboratory at the university, and wrote several papers on a range of subjects, such as ‘D2 Statistics’, and ‘Total Reflection of Electromagnetic Waves in the Ionosphere’.
- In 1945, he left Dhaka to return to his alma

mater, the University of Calcutta, as the Khaira Professor of Physics. He retired from the University of Calcutta in 1956 and spent a year as the Vice Chancellor at the Viswa-Bharati University.

- Bose was awarded Padma Vibhushan, one of the highest civilian awards in the country, by the Indian government in 1954.
- He served as president of many scientific institutions, which include the Indian Physical Society, National Institute of Science, Indian Science Congress, and the Indian Statistical Institute.
- He also acted as an advisor to the Council of Scientific and Industrial Research, and later became a Fellow of the Royal Society.

Lala Lajpat Rai

- The nation observes the 158th birth anniversary of the freedom fighter Lala Lajpat Rai, popularly known as Punjab Kesari. Lala Lajpat Rai was born on 28th January 1865 to his maternal grandparents in Dhudike.
- On the occasion of the 158th birth anniversary of the freedom fighter Lala Lajpat Rai, the cabinet minister announced a grant of Rs 12 lakh on the demand of the villagers.
- Lala Lajpat Rai has made a huge contribution to the struggle for the independence of the nation. He was also known as the leader of the Swadeshi movement.

About Lala Lajpat Rai

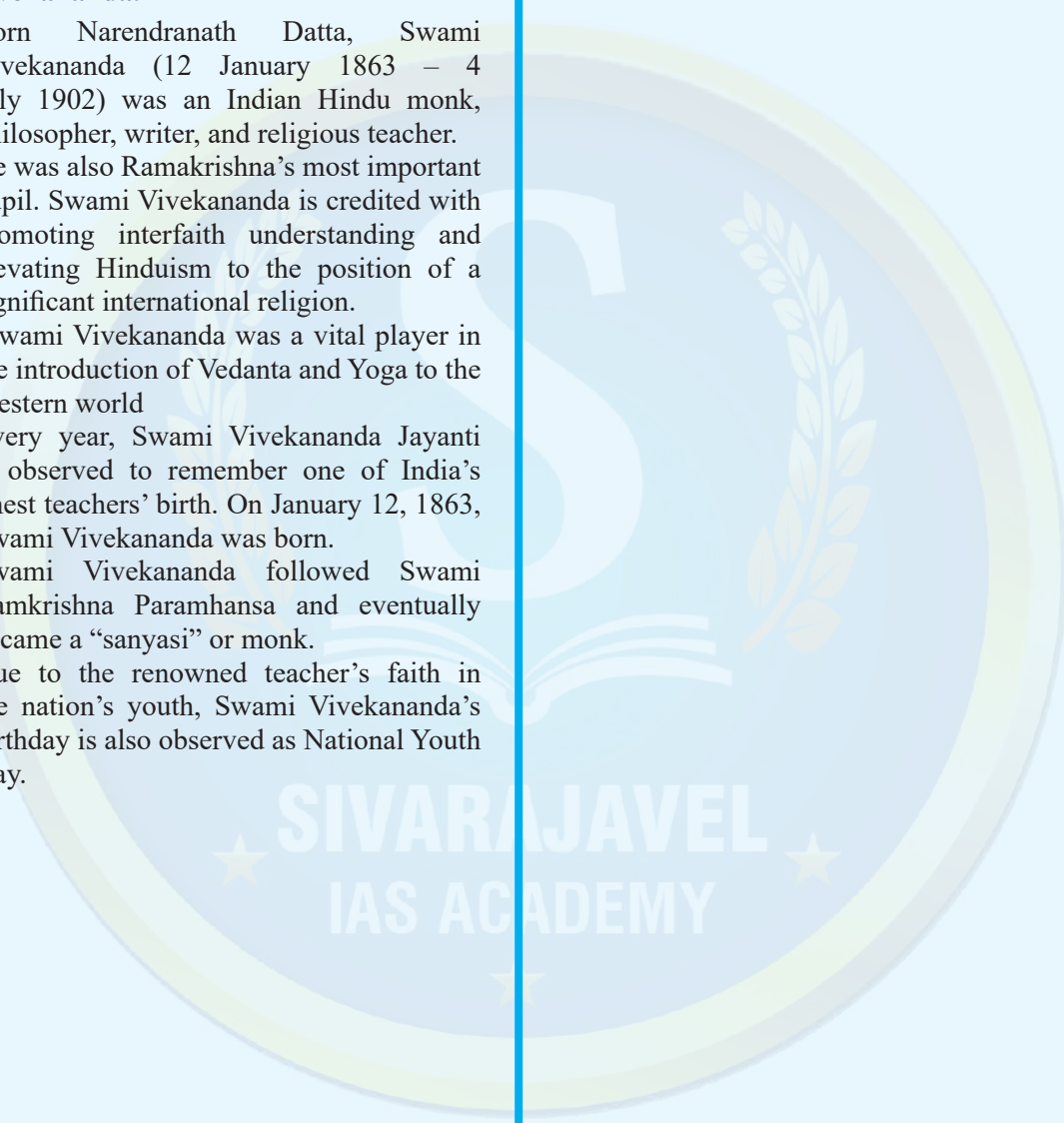
- Lala Lajpat Rai is an Indian writer and politician. He was born on 28th January 1865 and died on 17th November 1928.
- He is popularly known as ‘Punjab Kesari’ and played a pivotal role in the Indian Independence movement.
- People also called him ‘Punjab da Sher’ which means ‘Lion of Punjab’.
- He was one of the three members of the Lal Bal Pal Trimurti.
- He was also associated with the management activities of Punjab National Bank in the early years and Lakshmi Insurance Company in their early stages in 1894.
- Lala Lajpat Rai’s Career was inspired by Swami Dayanand Saraswati’s Hindu reformist movement while studying in Lahore and entering the existing Arya Samaj Lahore. He was also the founding editor of the Arya Gazette in Lahore.
- He became a strong believer in the belief that Hinduism and was the pivotal point on which an Indian lifestyle must be based when studying law.
- His father moved to Rohtak in 1884, and Lala Lajpat Rai followed after finishing his

studies in Lahore.

- In 1886, he moved to Hisar, where his father had been relocated, and began practicing law.
- He and Babu Churamani were founding members of the Hisar Bar Council. He had a strong desire to serve his country since childhood, and he took a vow to free it from foreign rule in 1886 when he established the Hisar district branch of the Indian National Congress.

Swami Vivekananda.

- Born Narendranath Datta, Swami Vivekananda (12 January 1863 – 4 July 1902) was an Indian Hindu monk, philosopher, writer, and religious teacher.
- He was also Ramakrishna's most important pupil. Swami Vivekananda is credited with promoting interfaith understanding and elevating Hinduism to the position of a significant international religion.
- Swami Vivekananda was a vital player in the introduction of Vedanta and Yoga to the Western world
- Every year, Swami Vivekananda Jayanti is observed to remember one of India's finest teachers' birth. On January 12, 1863, Swami Vivekananda was born.
- Swami Vivekananda followed Swami Ramkrishna Paramhansa and eventually became a "sanyasi" or monk.
- Due to the renowned teacher's faith in the nation's youth, Swami Vivekananda's birthday is also observed as National Youth Day.





AWARDS

What are Padma Awards?

Prime Minister urged the citizens of the country to read about the lives and stories of people who have been conferred with the prestigious 'Padma' Awards during his first 'Mann Ki Baat' radio programme of 2023.

Key facts about Padma Awards:

- The Padma Awards are one of the highest civilian honours of India announced annually on the eve of Republic Day.
- The award seeks to recognize works of distinction and is given for distinguished and exceptional achievements/service in all fields of activities/disciplines.
- Padma Awards were instituted in the year 1954
- The award is given in three categories, namely,
- Padma Vibhushan: for exceptional and distinguished service;
- Padma Bhushan: for distinguished service of a high order; and
- Padma Shri: for distinguished service.
- Award: The awardees are presented a Sanad (certificate) signed by the President and a medallion.

Eligibility:

- All persons without distinction of race, occupation, position or sex are eligible for these awards.
- Government servants including those working with PSUs, except doctors and scientists, are not eligible for these Awards.
- The award is normally not conferred posthumously. However, in highly deserving cases, the Government could consider giving an award posthumously.
- The award does not amount to a title and cannot be used as a suffix or prefix to the awardees' name.
- Who can nominate?
- Nominations are invited from Central Ministries/Departments, States/UT Governments, Bharat Ratna and Padma Vibhushan awardees, Institutes of Excellence.
- All citizens can make nominations/recommendation including self-nomination.

Who Decides?

- All nominations received for Padma Awards are placed before the Padma Awards Committee, which is constituted by the Prime Minister every year.
- On the basis of the recommendations of the Awards Committee, and after approval of the Home Minister, Prime Minister and President, the Padma Awards are announced on the eve of the Republic Day.

Atal Samman Award

Prabhu Chandra Mishra has been awarded Atal Samman Award for his excellence in field of science & research.

17th Pravasi Bharatiya Samman Award 2023 announced

- 17th Pravasi Bharatiya Samman Award: 27 Indians living overseas have been chosen by the Indian government for the Pravasi Bharatiya Samman Awards (PBSA), for outstanding achievements both in India and foreign nation

Odisha wins World Habitat Award 2023 for its JAGA Mission

- Odisha won the UN-Habitat's World Habitat Awards 2023 for Jaga Mission, a 5T initiative of the state. The awards recognise and highlight innovative, outstanding and revolutionary housing ideas, projects and programmes from across the world. The Jaga mission is the land titling and slum upgrading program that aims at empowering the lives of slum dwellers.

Odakkuzhal Award 2022 for Writer Ambikasuthan Mangad

- Writer Ambikasuthan Mangad has been selected for Odakkuzhal Award 2022 for his collection of short stories titled Pranavayu. The award consists of Rs 30,000, citation, and plaque.

Naatu Naatu' from epic drama 'RRR' wins Best Song at Golden Globe Awards 2023

- Composer MM Keeravani, along with singers Kaala Bhairava and Rahul Sipligunj, has won the Golden Globe for Best Original

Song, for the track “Naatu Naatu,” from epic drama “RRR“.

- “Naatu Naatu,” a dance number featuring stars Jr NTR and Ram Charan, was competing against Taylor Swift’s “Carolina” from Where the Crawdads Sing, “Ciao Papa” from Guillermo del Toro’s Pinocchio, Lady Gaga’s “Hold My Hand” from Top Gun: Maverick, and “Lift Me Up” from Black Panther: Wakanda Forever, performed by Rihanna

Critics Choice Awards 2023 full winners list: RRR bags two more awards.

- The 28th Critics Choice Awards were held, and once again, SS Rajamouli’s RRR has made India proud, as the film scored two awards. RRR won Best Song award for Naatu Naatu, as well as Best Foreign Language film. RRR was also nominated for Best Director, Best Picture and Best Visual Effects.
- The American Canadian Critics Choice Association CCA show Who shows for the finest In cinematic achievement. The Critics Choice Movie award Formerly known as the Broadcast Film Critics Association award was held. Critics Choice Awards Winner 2023 shows were hosted by Chelsea Handler.

President Droupadi Murmu confers Pradhan Mantri Rashtriya Bal Puraskar

- President Droupadi Murmu has conferred upon Pradhan Mantri Rashtriya Bal Puraskar at a ceremony in New Delhi.
- This year, 11 children have been selected for the Pradhan Mantri Rashtriya Bal Puraskar from which, four are from Art and Culture field, one for Bravery, two for Innovation, one for Social Service, and three for Sports.
- 29 Children have been conferred the Pradhan Mantri Rashtriya Bal Puraskar this Year, selected from all regions of the country for their exceptional achievements in Innovation (7), Social Service (4), Scholastic (1), Sports (8), Art & Culture (6) and Bravery (3) categories. There are 15 Boys and 14 Girls among the awardees belonging to 21 States and UTs.



Leopard 2 tank

The U.S. Defense Secretary recently said that Germany has not decided whether to allow its Leopard 2 tanks to be sent to Ukraine, after a recent U.S.-led meeting of Ukraine's allies ended with no consensus.

About Leopard 2 tank:

- It is a German made main battle tank.
- Manufacturer: Developed by German weapons manufacturer Krauss-Maffei Wegmann (KMW).
- Leopard was first produced in the late 1990s for the West German army in response to Soviet threats during the Cold War.
- Range: 500km (311 miles)
- Weight: 55 tonne
- Top speed: 68 km/h (42mph).

Other Features:

- These tanks are armed with a 120mm smoothbore cannon.
- It is also armed with two coaxial light machine guns.
- They also provide “all-round protection” for troops from threats such as mines, anti-tank fire, and improvised explosive devices
- The Leopard 2 tanks are mainly used by the German military. More than a dozen countries in Europe as well as other countries like Canada are also using these tanks.

What is Prithvi-II missile?

Recently, the Defence Research and Development Organisation (DRDO), successfully carried out a training launch of Prithvi-II from the Integrated Test Range, Chandipur off Odisha.



About Prithvi-II missile:

- It is a surface-to-surface, nuclear-capable short-range ballistic missile.

- It has a carrying 500-1,000 kilograms of warheads and is powered by liquid propulsion twin engines.
- Range: It has a strike range of 350 km.
- The missile is a proven system and is capable of striking targets with a very high degree of precision.
- The state-of-the-art missile uses an advanced inertial guidance system with manoeuvring trajectory to hit its target.
- It was inducted into the Indian armed forces in
- It was one of the first missiles developed under the Government of India's IGMDP.

VARUNA Exercise 2023

Recently the 21st Edition of the Bilateral Naval Exercise Varuna-2023 commenced on the Western Seaboard.

About Varuna Exercise:

- It is the Bilateral Naval Exercise between India and France.
- This bilateral exercise between the two navies was initiated in 1993.
- It was named 'VARUNA' in 2001 and has become a hallmark of India France strategic bilateral relationship.
- This edition will witness the participation of indigenous guided missile stealth destroyer INS Chennai, guided missile frigate INS Teg, maritime patrol aircraft P-8I and Dornier, integral helicopters and MiG29K fighter aircraft.
- The French Navy will be represented by the aircraft carrier Charles De Gaulle, frigates FS Forbin and Provence, support vessel FS Marne and maritime patrol aircraft Atlantique.
- The exercise will be conducted over five days from 16 to 20 January 2023 and will witness advanced air defence exercises, tactical manoeuvres, surface firings, underway replenishment and other maritime operations.
- Units of both navies will endeavour to hone their war-fighting skills in maritime theatre, enhance their inter-operability to undertake multi-discipline operations in the maritime domain and demonstrate their ability as an integrated force to promote peace, security

and stability in the region.

VSHORAD missile system?

Recently, the Defence Acquisition Council (DAC) headed by Defence Minister accorded Acceptance of Necessity (AoN) to critical procurements for the defence forces, including that of the Very Short Range Air Defence System or VSHORAD (IR Homing) missile system.

About the VSHORAD missile system:



- It is a man-portable air defence system (MANPADS).
- These are short-range, lightweight and portable surface-to-air missiles that can be fired by individuals or small groups to destroy aircraft or helicopters.
- They are having a maximum range of 8 kilometres and can engage targets at altitudes of 4.5 km.
- The missile incorporates many novel technologies including a miniaturized Reaction Control System (RCS) and integrated avionics, which have been successfully proven during the tests.
- The RCS is responsible for attitude control and steering by the use of thrusters and is also capable of providing small amounts of thrust in any desired direction or combination of directions.
- Designed and developed: DRDO's Research Centre Imarat (RCI), Hyderabad in collaboration with other DRDO laboratories and Indian Industry Partners.

Veer Guardian-2023'

India and Japan are all set to hold the joint Air Exercise, 'Veer Guardian-2023' involving the Indian Air Force and Japan Air Self Defence Force (JASDF) at Hyakuri Air Base, Japan from 12th of January.

About 'Veer Guardian-2023':



- The Joint Exercise which will continue till 26th January aims at promoting Air Defence cooperation between the countries.
- The Indian contingent participating in the air exercise will include four Su-30 MKI, two C-17 and one IL-78 aircraft, while the JASDF will be participating with four F-2 and four F-15 aircraft.
- It will include the conduct of various aerial combat drills between the two Air Forces.
- They will undertake multi-domain air combat missions in a complex environment and will exchange best practices.
- Exercise 'Veer Guardian' will fortify the long-standing bond of friendship and enhance the avenues of defence cooperation between the two Air Forces.

Light Tank Zorawar

- According to a recent report, DRDO-L&T developed Zorawar Light Tank that is under fabrication and will be "rolled out" soon
- Why in News?
- The Defence Acquisition Council (DAC) of the Defence Ministry recently accorded the approval for Acceptance of Necessity (AoN) for purchasing 354 of these tanks through Make in India

About Light Tank Zorawar:

- It is an indigenously designed and developed Light Tank.
- Developed by Defence Research and Development Organisation (DRDO) in collaboration with Larsen & Toubro Limited.

Features:

- It is designed to operate in varying terrain from high altitude areas and marginal terrains to island territories.
- It will be highly transportable for rapid deployment to meet any operational situation.
- It will be equipped with all the modern technologies such as Artificial Intelligence, Drone Integration, a high degree of situational awareness, and amphibious operation capability.
- It will weigh less than 25 tonnes with a high power-to-weight ratio as well as superior

firepower and protection.

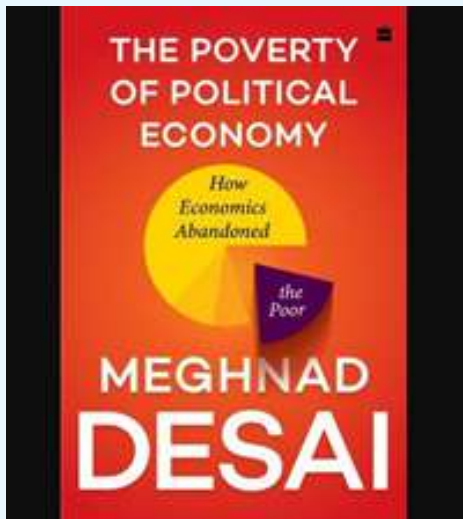
Who was Zorawar?

- He was a military general — Zorawar Singh Kahluria, and had served under Jammu's Raja Gulab Singh in the 19th Century.
- He is honoured for his conquests in the Himalayas including Ladakh, Tibet, Baltistan and Skardu.





The Poverty of Political Economics.



- India-born naturalised British economist Meghnad Desai has authored a new book titled “The Poverty Of Political Economy: How Economics Abandoned the Poor” which highlights how the discipline of economics, since the time it evolved from the late 18th century, systematically kept the interests of the poor at the periphery. The book is published by HarperCollins Publishers India
- The book examines the philosophical traditions that have shaped economics across the world in this engrossing new book.

India’s Knowledge Supremacy: The New Dawn

- A book titled “India’s Knowledge Supremacy: The New Dawn” Written by international Indian expat, Dr Ashwin Fernandes has released globally.
- This book was launched by Honourable Minister of Education of India Shri Dharmendra Pradhan, at an event at Dr Ambedkar International Centre.
- This New book launched focuses on India’s knowledge supremacy, journey showcasing changing trends in newly emerging India.

A book title ‘COACHING BEYOND: My Days with the Indian Cricket Team’ by R. Kaushik, R. Sridhar.

- A book titled ‘COACHING BEYOND: My Days with the Indian Cricket Team’ authored by R. Kaushik & R. Sridhar.
- The book reflects primarily on R. Sridhar’s seven-year coaching tenure with the Indian cricket team as its fielding coach.
- This book isn’t as technical as it is anecdotal. It throws light, for instance, on how Virat Kohli overcame a dismal Test series in England in 2014 to smash four hundreds in as many matches in his next overseas outing, in Australia.

A Book “Come! Let’s Run” Authored by Tamil Nadu Health Minister Released.

- The English version of the book titled ‘Come! Let’s Run’ by Tamil Nadu Health and Family Welfare Minister, Ma. Subramanian was released by Krishnamachari Srikanth, former Captain of the Indian Cricket team.
- The Tamil version of the same book titled ‘Odalam Vanga’ was released on March 8, 2021. The book was published by Emerald Publishers and the English translation was done by Geeta Padmanaban (a teacher) along with J. Joicy and Sharo.

A book titled ‘Revolutionaries – The Other Story of How India Won Its Freedom’ released by Amit Shah.

- Home Minister Amit Shah has released a book titled “Revolutionaries- The Other Story of How India Won Its Freedom” at a function in New Delhi.
- The Author of the book is Economist Sanjeev Sanyal who is also a member of Economic Advisory Council to the Prime Minister. Formerly a best selling author, Sanjeev Sanyal has served in the financial sector for almost two decades. Sanjeev Sanyal has been the Global Strategic and Managing Director of Deutsche Bank till 2015.

A book titled “Roller Coaster: An Affair with Banking” by Tamal Bandyopadhyay

- Journalist Tamal Bandyopadhyay has released his latest book “Roller Coaster: An Affair with Banking” with permission from Jaico Publishing House. Roller Coaster is a string of such stories and revelations from the country’s foremost banking journalist’s affair with the industry—even though banks were not ideal partners for such liaisons. He has seen the industry and dramatis personae grow over two and a half decades, first as a rookie reporter, then as an editor and a columnist, and, finally, as an author. The book brings to light the lives of India’s commercial and central bankers

Former CJI Ranjan Gogoi released book titled ‘Chief Minister’s Diary No.1’

- Former Chief Justice of India and member of the Rajya Sabha Ranjan Gogoi has released a book titled ‘Chief Minister’s Diary No.1’ containing the account of events of the first year in office of Assam chief minister Himanta Biswa Sarma. The book featured accounts of daily activities he undertook as a chief minister

Shashi Tharoor’s latest book ‘Ambedkar: A Life’ launched.

- Parliamentarian and author, Shashi Tharoor’s latest book Ambedkar: A Life was recently launched at the Kitaab Kolkata event. In this new biography, Tharoor tells Ambedkar’s story with great lucidity, insight, and admiration.
- He traces the arc of the great man’s life from his birth into a family of Mahars in the Bombay Presidency on 14 April 1891 to his death in Delhi on 6 December 1956.
- He describes the many humiliations and hurdles Ambedkar had to overcome in a society that stigmatized the community he was born into, and the single-minded determination with which he overcame every obstacle he encountered.

A book titled “Forks in the Road: My Days at RBI and Beyond” by C. Rangarajan.

- C Rangarajan authored a book titled “Forks in the Road: My Days at RBI and Beyond”. It was published by the Penguin Business (Penguin Group).
- The book is the memoir of Dr C. Rangarajan, an Indian economist, a former Member of Parliament, and the 19th Governor of the Reserve Bank of India (RBI).

- It discusses India’s transition from its post-independence planning era to the present times. The book is divided into 3 parts. Part 1- ‘RBI and Planning Commission’, Part 2- ‘Governor of RBI’ and Part 3- ‘Beyond RBI’.

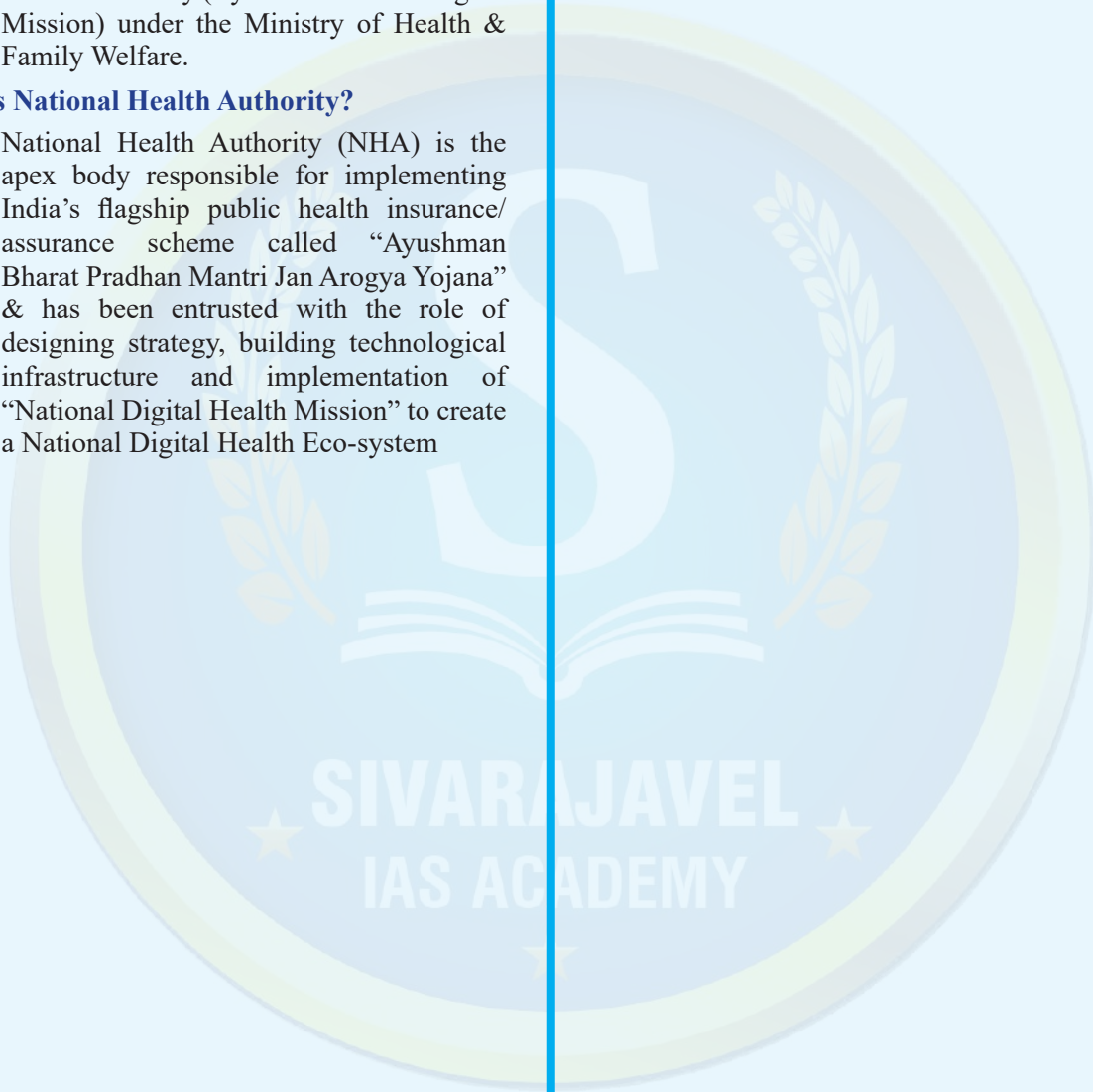


Director of National Health Authority

- Praveen Sharma has been selected for appointment as Director in the National Health Authority (Ayushman Bharat Digital Mission) under the Ministry of Health & Family Welfare.

What Is National Health Authority?

- National Health Authority (NHA) is the apex body responsible for implementing India's flagship public health insurance/assurance scheme called "Ayushman Bharat Pradhan Mantri Jan Arogya Yojana" & has been entrusted with the role of designing strategy, building technological infrastructure and implementation of "National Digital Health Mission" to create a National Digital Health Eco-system





IMPORTANT DAYS

World Interfaith Harmony Week observed on 1-7 February

- World Interfaith Harmony Week is an annual event observed during the first week of February(1-7), after General Assembly designation in 2010.
- These celebrations focus on creating mutual understanding and interreligious dialogue to promote harmony between people regardless of their faith.
- The General Assembly encourages all countries to voluntarily disseminate the message of interfaith tolerance and goodwill in accordance with their religious traditions or convictions

World Wetlands Day

- Recently, the State Governments and Union Territory administrations in India celebrated World Wetlands Day (WWD) at all 75 Ramsar.



About World Wetlands Day:

- World Wetlands Day is observed on 2nd February every year all over the world to commemorate the signing of the Ramsar Convention on Wetlands of International Importance in 1971.
- India is a party to the Convention since 1982 and has so far declared 75 wetlands as Ramsar sites covering 23 states and Union Territories.
- At present, the state of Tamil Nadu has a maximum number of Ramsar sites (14), followed by UP which has 10 numbers of Ramsar sites.
- The 2023 theme for World Wetlands Day is Wetland Restoration.
- The theme of 2023 highlights the urgent need to prioritize wetland restoration. It is a call on an entire generation to take proactive

action for wetlands, by investing financial, human and political capital to save the wetlands from disappearing and to revive and restore those that have been degraded.

- India has the largest network of Ramsar Sites in Asia, making these sites a critical ecological network for the conservation of global biological diversity and supporting human well-being.

World Cancer Day 2023.

- World Cancer Day 2023: Each year on February 4, World Cancer Day is celebrated worldwide. It is believed to have brought everyone together in the fight against cancer. World Cancer Day seeks to save millions of lives by educating the public, promoting awareness, and pressuring individuals and governments around the world to take action every year.

Safer Internet Day 2023

- This year's Safer Internet Day took place on Tuesday, 7 February 2023. Significantly, it was the 20th edition of the campaign. Safer Internet Day is marked to help the younger generation understand safe practices on the Internet. This is not only to protect themselves but to understand that they do not cause harm to others, whether it is intentional or unintentional.

World Pulses Day 2023

- Every year World Pulses Day is celebrated on February 10 with an aim to spread awareness about the nutritional and environmental benefits of pulses as part of sustainable food production.
- In 2019, the UN General Assembly dedicated a day to Pulses to increase awareness and access to pulses globally. Pulses also known as legumes, are considered as global foods, and are produced in almost every country

International Day of Women and Girls in Science 2023 observed on 11 February.

- The United Nations General Assembly has designated February 11 as the International Day of Women and Girls in Science to recognise the significant contribution that women make to the fields of science and technology.
- The United Nations Sustainable Development Goals 2030 also lays out gender equality in science as an essential component of the agenda.

World Unani Day 2023

- World Unani Day is observed on February 11 every year to commemorate the birth anniversary of social reformer and renowned Unani scholar Hakim Ajmal Khan, widely regarded as the pioneer of Unani medicine in India.
- The day commemorates Hakim Ajmal Khan's contribution to the growth of Unani medicine in India and throughout the world. Hakim Ajmal Khan, who was born on February 11, 1868, was an educator, a Unani physician, and the founder of scientific study in the Unani system of medicine.

International Day of Women and Girls in Science- February 11

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- The theme for the 8th International Day of Women and Girls in Science is “Innovate. Demonstrate. Elevate. Advance (IDEA): Bringing communities Forward for sustainable and equitable development

National Productivity Day every year on February 12.

- The annual celebration of National Productivity Day is observed on February 12, coordinated by the National Productivity Council (NPC). The NPC's mission is to promote awareness towards increasing

the productivity of the country. The day is celebrated as part of National Productivity Week, which is observed from February 12 to 18

- theme is “Productivity, Green Growth, and Sustainability: Celebrating India's G20 Presidency.” The theme highlights the fact that everybody should give themselves a chance to set productivity goals and work towards them.

World Unani Day 2023 celebrated on 11th February.

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World Radio Day 2023 - 13th February

- World Radio Day is celebrated every year on February 13 to mark the important role that radio plays in our lives and in society.
- The objective of World Radio Day is to raise public awareness of the importance of radio and to encourage decision makers to use it to provide access to information, and to improve international co-operation among broadcasters.

Financial literacy week.

- RBI's 'Financial Literacy Week' started on 13th and will last till February 17, 2023.
- The Reserve Bank of India (RBI) has been conducting this every year since 2016 to propagate financial education messages on a particular theme among members of public across the country.
- Last year, RBI observed 'financial literacy week' from February 14 to February 18, 2022. The central bank held an event to propagate financial education messages on the theme of “Go Digital Go Secure”

International Childhood Cancer Day 2023

- International Childhood Cancer Day (ICCD) is observed on February 15 every year.
- The day was observed by the Childhood Cancer International, an umbrella organisation of various child cancer support groups created by parents.
- The day is dedicated to raising awareness and showing support for children and adolescents suffering from cancer. Despite all the advancements in science, childhood cancer remains the leading cause of death by disease among children.

Global Tourism Resilience Day.

- The United Nations General Assembly has adopted a resolution from Jamaica to declare the first-ever Global Tourism Resilience Day on 17th February 2023, in an effort to future-proof the sustainability of tourism.
- A way to improve sustainability after an ecological or environmental disaster and offers an alternative to sustainable development, as a possible recovery from tourism induced stress.

World Pangolin Day

- In 2023, World Pangolin Day is celebrated on February 18. Every year the day is celebrated on the third Saturday of February month.
- The main objective of the celebration is to create awareness about the Pangolin population decline.
- The population of Pangolin are decreasing rapidly in Africa and Asia.
- The main reason for the decline is their medicinal value. Pangolin scales have several medicinal properties.

India celebrates 8th Soil Health Card Day on February 19

- Every year India observes the Soil Health Card Day on 19 February to commemorate the launch of the Soil Health Card (SHC) Scheme
- Objectives of Soil Health Card Scheme
- To issue soil health cards every two years to all farmers, so as to provide a basis to address nutrient deficiencies in fertilization practices.

- To strengthen functioning of Soil Testing Laboratories (STLs) through capacity building, involvement of agriculture students and effective linkage with Indian Council of Agricultural Research (ICAR) / State Agricultural Universities (SAUs).

World Day of Social Justice.

- World day of social justice is observed annually on February 20
- The main goal of this day is to raise a voice against social injustice and to bring together diverse communities around the world in an effort to eradicate poverty, physical discrimination, gender inequalities, religious discrimination and illiteracy, and create a society that is socially integrated.

International Mother Language Day

- Every year on February 21, the world celebrates International Mother Language Day to encourage linguistic, cultural, and multilingualism variety.
- The aim of the celebrations is to preserve traditional knowledge and cultures through sustainable methods and support multilingualism in societies. In India, we also refer to it as the Matribhasha Diwas.

World Thinking Day

- Every year on February 22, the World Organization of Girl Guides and Girl Scouts (WAGGGS) observes World Thinking Day. The goal of the day is to collect money for the 10 million girl scouts and guides who are active in more than 150 countries while also celebrating sisterhood, solidarity, and women's empowerment. On World Thinking Day, female scouts are also encouraged to build enduring bonds with one another that prioritise loyalty and respect
- Our World, Our Peaceful Future', the theme for World Thinking Day 2023.

World Scout Day

- It is observed annually on February 22 by millions of Boy Scouts worldwide. It honours Lord Robert Baden-Powell, who founded the Boy Scout Movement, on the day of his birthday.
- The day is observed by National Scout Organizations all over the world through events including fundraising campaigns, food drives, and other types of volunteer work.

Central Excise Day 2023

- Every year on February 24, Central Excise Day is observed to recognise and honour the contributions made by the Central Board of Indirect Taxes and Customs (CBIC).
- Every year, Central Excise Day is observed to raise public awareness of the dedication and labor-intensiveness of CBIC. The primary responsibility of CBIC is to prevent the tampering of manufactured items.

World NGO Day 2023

- The World NGO Day is an annual international observance on February 27 to recognize the contributions of non-governmental organizations (NGOs).
- The day was first celebrated in 2010 and has since become an annual event that highlights the work of NGOs around the world. It provides an opportunity to advocate for policies that support their efforts.
- World NGO Day aims to create awareness about the sector and encourage people across the world who work in the sector for a good cause. One interesting fact about World NGO Day is that the Government of each country, appreciate these people working selflessly in their official state languages.

National Science Day 2023

- On February 28 each year, National Science Day honours Chandrasekhara Venkata Raman as C.V. Raman, an Indian scientist and physicist, for discovering the “Raman Effect.”
- Every year, it is celebrated to honour the value of science and to serve as a reminder of the influence it has had on humankind’s way of life. In honour of India’s G20 leadership, the event this year has the theme “Global Science for Global Wellness.”







Pravasi Bharatiya Divas Convention 2023?

Recently, Prime Minister's Office said in a statement that the 17th Pravasi Bharatiya Divas (PBD) will be held on January 9, 2023, in Indore, Madhya Pradesh.

About Pravasi Bharatiya Divas Convention 2023

- Pravasi Bharatiya Divas (PBD) Convention is the flagship event of the Government of India.
- It provides an important platform to engage and connect with overseas Indians and to enable the diaspora to interact with each other.
- What is the theme of 2023 PBD?
- Diaspora: Reliable partners for India's progress in Amrit Kaal.

What are the important events to be organised?

- A Commemorative Postal Stamp 'Surakshit Jaayen, Prashikshit Jaayen' will be released to underline the importance of safe, legal, orderly and skilled migration.
- The PBD Convention will have five thematic Plenary sessions
- Role of Diaspora Youth in Innovations and new Technologies.
- Role of Indian Diaspora in promoting Indian Healthcare Eco-system in Amrit Kaal: Vision @2047.
- Leveraging the soft power of India - Goodwill through craft, cuisine & creativity.
- Enabling global mobility of Indian workforce – Role of Indian Diaspora.
- Harnessing the potential of diaspora entrepreneurs towards an inclusive approach to nation-building.

What are the Key facts about PBD?

- 9th January was chosen as the day to celebrate PBD, as it was on this day in 1915 that Mahatma Gandhi, who returned to India from South Africa, led India's freedom struggle.
- This convention is being held every year since 2003 but in 2015 it was revised and was decided to be celebrated every two

years.

- It was then a theme-based conference that was set up every year during the interim period.
- PBD Conventions are held once every two year.

Indian Science Congress

Prime Minister will inaugurate inaugural session of the 108th Indian Science Congress through video conferencing on January 3, 2023.

About:

- Indian Science Congress, the annual gathering of researchers in the country is organised by the Indian Science Congress Association (ISCA).
- Theme: "Science and Technology for Sustainable Development with Women Empowerment."
- The first meeting of the Congress was held from January 15-17, 1914 at the premises of the Asiatic Society, Calcutta.
- Sections covered in ISC: There are fourteen sections which includes Agriculture and Forestry Sciences, Earth System Sciences, Engineering Sciences, Environmental Sciences, Mathematical Sciences, Medical Sciences etc.

What is Indian Science Congress Association (ISCA)?

- Established in 1914, ISCA is a professional body under Department of Science & Technology, Ministry of Science & Technology.
- ISCA owes its origin to the foresight and initiative of two British Chemists, namely, Professor J. L. Simonsen and Professor P.S. MacMahon.

Sodium tetrafluoroborate (NaBF₄)

Recently, Scientists from the Institute of Nano Science and Technology (INST) Mohali, an autonomous institute of the Department of Science and Technology (DST), have introduced a new electrolyte called (NaBF₄) which can help make electrochemical ammonia synthesis more efficient.

Why in news?

- The electrochemical ammonia synthesis

is largely limited by the poor solubility of nitrogen (N₂) in the aqueous electrolyte environment as well as the competitive hydrogen evolution reaction.

- Scientists have introduced a new electrolyte called (NaBF₄), which not only acts as an N₂ carrier in the medium but also works as a full-fledged “co-catalyst” along with active material transition metal-doped nanocarbon (MnN₄) to deliver high-yield of ammonia (NH₃) at absolutely ambient experimental conditions
- This new aqueous electrolyte can help make electrochemical ammonia synthesis more efficient will be useful for industries producing green energy or hydrogen.

What is Sodium tetrafluoroborate (NaBF₄)?

- It is a salt that forms colourless or white water-soluble rhombic crystals and is soluble in water but less soluble in organic solvents.
- What is an Electrolyte?
- An electrolyte is a substance that forms a solution that conducts electricity when dissolved in a polar solvent. Cations are positively charged ions and Anions are charged ions.
- Acids, bases, and salts are the most commonly known electrolytes.

SCO Film Festival

Recently, the five-day Shanghai Cooperation Organization’s Film Festival opened in Mumbai.

About SCO Film Festival

- It is being organized by the National Film Development Corporation, a Public Sector Undertaking of the Ministry of Information and Broadcasting, in association with the SCO Council of Heads of States.
- Aim: To build cinematic partnerships, have an exchange of programmes, nurture young filmmaking talent and act as a bridge between the cultures of the Shanghai Cooperation.
- As part of the SCO Film Festival in India, it is endeavoured to showcase selected films from the Members, Observer States and Dialogue partners States.

What are the general features of Mughal gardens?

The Central Government has decided to rename the Mughal Gardens inside the Rashtrapati Bhavan as Amrit Udayan.

Features of Mughal gardens:

- These are developed in Islamic architectural style by the Mughals in India and other countries.
- These gardens are frequently seen as a place for relaxation and meditation.
- Examples: The Taj Mahal Garden, Agra Fort, Humayun’s Tomb Garden, and the Red Fort Garden.
- Design:
- This gardening design was influenced by Persian, namely the Charbagh structure.
- Gardens are formal in style; symmetrically designed in rectangular or square
- The garden area is divided into four plots by water channels. These four channels represent four rivers of life.
- The running water provides coolness and freshness to the garden.
- The four plots are planted with trees, shrubs, etc.,
- The axis is straight and central and sometimes represented by trees line.
- The water pool created in the centre with over flowing water serves as the central specimen.
- Fountains, cascades are linked to the central pool to create scenic beauty.
- Mughal gardens are surrounded by a high, robust wall. The wall’s summit is decorated with serrated battlements.
- The entrances are often towering and beautiful. The doors are massive wooden structures studded with hefty iron nails and spikes.



Parasnath Hills

Tribal bodies recently stepped up their demand to “free” the Parasnath hills in Jharkhand’s Giridih district from the “clutches” of the Jain community.

Key Facts about Parasnath hills:

- Parasnath is a mountain peak in the Parasnath Range.
- It is located towards the eastern end of the Chota Nagpur Plateau in the Giridih district of the Indian state of Jharkhand.
- It has been named Parasnath after the 23rd Jain Tirthankara.
- It is a holy and revered sites for the Jain community, called it as “Sammed Sikhar”.
- Out of 24 Tirthankaras of Jains, 20 got NIRVANA on Parasnath Hills.
- On the mountain, A Jain temple is believed to be constructed by Magadha King Bimbisara (543-491 BCE.)

About Santhal Community:

- The Santhal tribe, one of the largest Scheduled Tribe community in the country, has a sizeable population in Jharkhand, Bihar, Odisha, Assam and West Bengal.
- Santhals call parasnath hill “Marang Buru”. They celebrate a hunting festival on the full moon day in Vaishakha (mid-April).

Visakhapatnam Railway Station awarded ‘Green Railway Station Certificate’

- Green Railway Station Certification: East Coast Railways’ Visakhapatnam railway station has received the prestigious ‘Green Railway Station Certification’ with the highest Platinum rating.

What is Green Railway Station?

- The Environment Directorate of Indian Railways (IR) with the support of IGBC has developed the Green Railway Stations Rating System to reduce the adverse environmental impacts due to station operation, and maintenance and enhance the overall experience of the passengers. This is a voluntary and consensus-based program.
- The rating system helps to address issues of national priorities such as – water conservation, handling of waste, energy efficiency, reduced use of fossil fuels, lesser dependence on usage of virgin materials, and health and well-being of occupants.
- Initially, the ‘Green Railway Stations rating system’ was designed for existing railway stations. However, the stations under redevelopment can also apply for the rating.

North India’s largest floating Solar project in Chandigarh.

- Union Territory Administrator, Banwari Lal Purohit has inaugurated northern

India’s largest floating solar power project of 2000kWp worth Rs 11.70 crore at waterworks, Sector 39, Chandigarh. The inauguration was held in the presence of MP Kirron Kher. He also inaugurated a 500kWp floating solar project with fountains at Dhanas Lake.

First SARAS Fair 2023

- The Jammu and Kashmir Government is set to host their first SARAS Fair 2023 from 4th February to 14th February 2023.
- In the SARAS Fair 2023, artisans and women’s self-help groups from across the country will showcase their crafts, Handicrafts, handloom, and food. The fair would be organized at Bagh-e-Bahu, in Jammu

About SARAS Fair

- The SARAS Fair provides rural, and marginal producers an opportunity to showcase their products, capacity, and skills of livelihood. It is conducted under the guidance of the Ministry of Rural Development.
- The SARAS Fair is organized jointly by the Central-State Government as part of the National Rural Livelihood Mission (NRLM) where entrepreneurs across the country are brought together for marketing

J&K Becomes First Indian UT to Completely Shift to e-Governance Mode.

- Jammu & Kashmir becomes the first union territory in India to completely switch to a digital method of administration, leading the way in the digital transformation of governance. All governmental and administrative services in Jammu & Kashmir are currently only offered digitally.

US Announced Support Project for Restoration of Paigah Tombs in Hyderabad.

- United States Charge d’Affaires, Ambassador Beth Jones announced a \$250,000 US government project to support the conservation and restoration of the historic Paigah Tombs in Hyderabad.
- The project will be held in the conservation and restoration of six tombs built during the 18th and 19th centuries. This is the fifth conservation project funded by the US Consulate in Hyderabad.
- The project will be implemented by Aga Khan Trust for Culture.

About

- The Paigah Tombs are located 4km away

from the Charminar in the Postal Banda.

- Paigah Tombs is the resting place of the members of the Paigah nobility.
- The Paigah families were among the most influential families of the aristocracy in the princely state of Hyderabad.
- The Paigahs were known to be great patrons of art.
- The lime and mortar tombs with inlaid marble carvings are considered to be one of the major architectural treasures of Hyderabad.
- After the announcement of the project, Ambassador Beth Jones received a tour of the Paigah Tombs from Ratish Nanda, Chief Executive Officer, of Aga Khan Trust for Culture India.
- The US Department of state created the Ambassador Fund for Cultural Preservation (AFCP) in 2001 to demonstrate American values and respect for other countries.
- AFCP has provided financial support to more than 1,100 projects in 133 countries around the world.

Vidisha becomes the 1st Indian district to implement cutting-edge 5G use cases

- A joint initiative by the Vidisha District Administration and the Centre for Development of Telematics (C-DOT), Department of Telecommunications (DoT), under the direction of Additional Secretary (Telecom) & Administrator USOF, made Vidisha, a district of Madhya Pradesh, the first district ever in India for on-ground implementation of groundbreaking 5G use cases proposed by startups...

India's first underwater metro to become operation by December 2023

- India's first underwater metro service, The Kolkata Metro Rail Corporation (KMRC) said that the East-West Metro Corridor project, is expected to be completed by December 2023.
- With this, another feather is being added to the crown of Kolkata Metro, the first metro railway in the country.
- Kolkata Metro, which started its journey in 1984, is being expanded to cover the whole city and its outskirts.
- The underwater metro, which will be running through the Hoogly river will connect the twin cities of Howrah and Kolkata.

India's second longest cable-stayed eight-lane Zuari Bridge opens in Goa

- Union Minister of Roads Transport and Highways Nitin Gadkari has inaugurated the country's second longest cable-stayed eight-lane Zuari Bridge in Goa.
- Right-hand side (4-lane corridor) across the Zuari River and approaches from Bambolim to Verna were thrown open for vehicular traffic. Gadkari also launched the PWD Goa App for integrated operations management.
- Through the insurance scheme of the Government of Goa, Chief Minister Pramod Sawant has given Rs 2 lakh each to the families of the workers who died during the construction of the bridge.

About the Zuari Bridge:

- The Zuari Bridge is a bridge between North Goa and South Goa, India. It carries the NH 66 over the tidal part of the Zuari River, between the villages of Agaçaim and Cortalim.
- It is a few metres downstream of the Konkan Railway Bridge.
- The 640-metre-long bridge and the 13.20 km roads on both sides have been built in 3 phases. The Zuari Bridge work began in June 2016.



Shumang Leela

A traditional style of theatre from Manipur has entertained and informed audiences for centuries.

About Shumang Leela:

- The meaning of this theatre form is “courtyard performance”, which is performed in Manipur.
- In this, the roles of women are all played by men, called Nupi Shabis.
- In the case of women’s theatre groups, the roles of men are played by women.
- The female roles are taken up by transgender actors.
- The tradition is believed to be descended from Lai Haraoba, a ritual of the Meitei community of Manipur.
- The plays provide a vehicle for educating the public about social, political, and economic issues.
- Types - Shumang Leela is of two types
- Nupa Shumang Leela - Performed only by men
- Nupi Shumang Leela - Performed only by women

Project ELLORA (Enabling Low Resource Languages)

Microsoft Research is helping preserve ‘rare’ Indian languages with its Project ELLORA in India.

Why in news?

- Microsoft researchers under this project have been working toward creating digital ecosystems for Indian languages that do not have enough presence online,
- The main goal of the Project? To impact underserved communities through enabling language technology by creating economic opportunities, building technological skills, enhancing education and preserving local languages and cultures for future generations.
- Microsoft Research (MSR) has chosen to focus on three languages namely; Gondi, Mundari and Idu Mishmi.

Key facts about Gondi, Mundari and Idu Mishmi Language

Gondi Language

- Language family:Gondi is a South-Central

Dravidian language.

- Script:The Gondi script is perhaps the only script in the country besides Urdu which is written right to left.
- In northern and central India, it is the only language, barring Gujarati, which has a script of its own.All other north and central Indian languages use the Devnagri script.
- Dialects:Gondi, is heavily influenced by the other local languages spoken in the respective states.
- This is spoken by close to three million speakers in Madhya Pradesh, Maharashtra, Chhattisgarh, Andhra Pradesh and Telangana.

Mundari language

- Mundari (Mundari) is a Munda language of the Austroasiatic language family spoken by the Munda tribes in the eastern Indian states of Jharkhand, Odisha and West Bengal.
- Mundari Bani, a script specifically to write Mundari, was invented by Rohidas Singh Nag.

Idu Mishmi

- The Idu Mishmi language is a small language spoken by the Mishmi people in the Dibang Valley district, of the Indian state of Arunachal Pradesh speakers in China 1994.
- It is considered an endangered language.

Tulasidas

Recently, a controversial statement was made by a state minister on the Tulasidas’s Ramacharitmanas.

About Tulasidas:

- Tulsidas, whose real name was Ram Bola Dubey, wrote the Ramcharitmanas on the banks of the Ganga in Varanasi.
- The Ramcharitmanas was written in the 16th century in the Awadhi dialect, which is primarily spoken in the districts of Lucknow, Prayagraj, and Ayodhya.
- He was a contemporary of Emperor Akbar and is thought to have corresponded with Abdurrahim Khan-e-Khanan, the son of Akbar’s commander Bairam Khan.
- Tulsidas popularised the story of Lord Ram because he wrote in the regional dialect that most people understood.
- This enraged ancient Sanskrit scholars, and

Tulsidas documented his anguish in his Kavitaawali.

Jatar Deul temple

The Archaeological Survey of India (ASI) plans to replace damaged bricks and plant trees as a protective barrier at the Jatar Deul temple in West Bengal to prevent corrosion of the terracotta temple.



About Jatar Deul temple:

- It is a Hindu Temple dedicated to Lord Shiva.
- Location: Located at Kankan Dighi Village in South 24 Parganas District in West Bengal.
- The Temple stands on a small hill in the landscape of the southern Sundarbans settlements.
- A copper plate found near the temple in 1875 suggests that Raja Joychandra constructed the temple in 975 AD.
- The temple has been classified as a Monument of National Importance by the Archaeological Survey of India (ASI).
- Structure:
- This temple is facing towards the east and follows the Kalingan style of architecture.
- The temple is built over a raised platform.
- It has an arched gateway leading to the sanctum.
- The sanctum is situated below the ground level.
- The sanctum houses Lingas, pictures and idols of various gods & goddesses of Hindu pantheon.
- The walls of the temple were intricately decorated with decorative bricks, but most of it is lost due to unplanned reconstruction.

Kalingan style of architecture:

- It is a style of Hindu architecture which

flourished in the ancient Kalinga previously known as Utkal and part of the kingdom of Magadha or present eastern Indian state of Odisha.

- In Kalinga style – the temple is made up of two structures: a tower and hall. The Tower is called ‘Deula’, and the hall is called ‘Jagmohan’.
- The style consists of three distinct types of temples: Rekha Deula, Pidha Deula and Khakhara Deula. .
- Rekha Deula: It is a tall building with a sikhara. The Rekha Deula means a shrine with different parts in a line. Eg: Rekha Deula in the Lingraj Temple of Bhubneshwar.
- Pidha Deula: Pidha Deula refers to the square building with a pyramid-shaped roof, like the vimanas. Eg: The assembly hall of the Konark Sun Temple.
- Khakhara Deula: It is altogether a different style of architecture closely appearing similar to the Dravidian Gopuran design. The temples of the feminine deities as Shakti are temple of this type. Eg: Baitala temple of Bhubneshwar dedicated to Chamunda.

Etikoppaka toys

An Etikoppaka toy craftsman is one among the seven persons from Andhra Pradesh who have been selected for this year’s Padma Awards.

About Etikoppaka toys:

- These are traditional toys made by artisans of Etikoppaka village located on the banks of Varaha River in Visakhapatnam district of Andhra Pradesh.
- These toys are made out of wood and are coloured with natural dyes derived from seeds, lacquer, bark, roots and leaves.
- The artisans mainly use the wood from trees known as ‘ankudu’ (Wrightia Tinctoria) that is soft in nature.
- These toys have no sharp edges. They are rounded on all sides.
- Etikoppaka toys received Geographical Indication (GI) tag IN 2017.
- Why are they called lacquer toys?
- While making the Etikoppaka toys, lac, a colourless resinous secretion of numerous insects, is used.
- The already prepared vegetable dyes are further mixed to the lac, during the process of oxidation.
- After this process, the end product obtained is rich and colored lacquer.
- The lac dye is used for decorating the Etikoppaka toys, which are exported all over the world.
- Thus, the toys are also called lacquer toys because of the application of lacquer coating.

Magh Bihu

Recently, The President of India greeted fellow citizens on the eve of Lohri (which falls on 13th January 2023) Makar Sankranti, Magh Bihu and Pongal (which fall on 14th January 2023).



What is Bihu

- Bihu is one of Assam's most prominent cultural events, celebrating the changing seasons.
- The festival of Bihu has three forms: Bohag Bihu, Kati Bihu and Magh Bihu. Each of these falls in the agriculture calendar.
- This day is considered auspicious in the Hindu lunar year as well and is known as the Makar Sankranti, i.e., the day when the sun begins its northward journey or Uttarayan and transitions into the Hindu zodiac sign of Makara.
- On this day the Sun God is worshipped in various parts of India in the form of different festivals such as Pongal (Tamil Nadu), Maghi (Punjab) and Uttarayan (Gujarat).

Assam's Charaideo Maidam

Assam Chief Minister recently said that the Central Government has decided to send a proposal to UNESCO nominating Charaideo Maidam of Ahom Kingdom as a World Heritage Site.

Charaideo Maidam



- Charaideo commonly known as 'Pyramids of Assam' was the original capital of the Ahom Kings.
- Charaideo remained the symbolic center of Ahom Kingdom even though the capital of the kingdom moved many times.
- It was built by Chaolung Sukhapa the founder of the dynasty in about 1229 CE.
- Location: Located at the foothills of Nagaland, it's situated at a distance of

around 30 KM from the historical Sivsagar town in Assam.

- Why is Charaideo known as 'Pyramids of Assam'?
- It contains sacred burial grounds of Ahom kings and queens and is also the place of the ancestral Gods of the Ahoms.
- Some 42 tombs (Maidams) of Ahom kings and queens are present at Charaideo hillocks.
- Architecture: It comprises a massive underground vault with one or more chambers having domical superstructure and covered by a heap of earthen mound and externally it appears a hemispherical mound.

Ahom Dynasty:

- It was founded by Chaolung Sukapha, who entered the Brahmaputra valley in 1228.
- They ruled Assam for six centuries.
- The Ahoms created a new state by taking over the older political system of the bhuiyans (landlords).
- The Ahom administration was a monarchical government with democratic and aristocratic values as well.
- Ahom society was divided into clans and with the expansion of the kingdom, the clans moved and took charge of the designated territory.
- The Ahoms followed stringent travel policies to protect their motherland against the foreign invaders for inward travel.
- In the 17th century, the Ahom rule got weakened due to multiple Burmese invasions and internal conflicts.
- Ahom Kingdom was annexed by the British East India Company after the Treaty of Yandabo in 1826.

Tharu people

- Forest department, NABARD to give skill-development training to Tharu people.

Why in the news?

- Forest officials of the Katarniaghat division say a plan is in the works for the financial inclusion of the Tharu groups that live near the Katarniaghat Wildlife Sanctuary (KWS) and are much affected by human-wildlife conflicts.

About Tharu people

- They are an ethnic group indigenous to the Terai region of the Himalayan foothills, located in southern Nepal and in the state of Uttar Pradesh in India.
- Tharu in Nepal officially numbered about 1.5 million and those in India about 170,000.

- They speak various dialects of Tharu, a language of the Indo-Aryan subgroup of the Indo-Iranian group of the Indo-European family, and they are largely Indian in culture.
- Most Tharu practice agriculture, raise cattle, hunt, fish, and collect forest products.
- Although they are Hindu, the Tharu use their own traditional ritual specialists in addition to the Hindu Brahman priests.
- Each Tharu village is governed by a council and a headman.

Katarniaghat Wildlife Sanctuary (KWS):

- Location: It is situated in the Upper Gangetic plain falling in the Terai of Bahraich district of Uttar Pradesh.
- It is part of Dudhwa Tiger Reserve Lakhimpur kheri.
- The Katarniya Ghat Forest provides strategic connectivity between tiger habitats of India and Nepal.
- Flora: The sanctuary has a mosaic of Sal and Teak forests, lush grasslands, numerous swamps and wetlands.
- Fauna: It is home to a number of endangered species including gharial, tiger, rhino, Gangetic dolphin, Swamp deer, Hispid hare, Bengal florican, the White-backed and Long-billed vultures.

Votive Stupa

Archeological Survey of India (ASI) has recently discovered two 1200-year-old miniature votive stupas during landscaping activities near Sarai Tila mound on the premises of 'Nalanda Mahavihara', a world heritage site in Nalanda district.



About Votive stupa:

- These are forms of the stupas, with their distinctive domelike drum, originating in eight cylindrical structures in which the Buddha's relics were placed after his death.
- The stupa shape has become associated with the Buddhist goal of release from the cycles of suffering and rebirth.
- In addition to the drum, this stupa has a tiered base and is crowned with a series of stylized umbrellas that symbolize royalty

and divine status.

- The larger ones at Bodhgaya were probably given by visiting kings, while smaller stupas such as this one were offered by monks and lay pilgrims.
- Beginning in the 7th century CE in India, small miniature terracotta stupas became popular as votive offerings.

What is a stupa?

- It is a Buddhist commemorative monument usually housing sacred relics associated with the Buddha or other saintly persons.

Gangasagar Mela

West Bengal ministers have demanded National Mela status for Gangasagar mela as record pilgrims have come to the mela this year claiming that the annual pilgrimage was turning out to be the biggest religious gathering in the country.

About Gangasagar Mela:

- It is known as the world's second largest human congregation after Kumbh.
- It happens every year during Makar Sankranti.
- The mela is held at Sagar Island.
- It has been mentioned in Indian epics such as the Ramayana and Mahabharata, putting its existence as early as 400 BCE.
- The pilgrims after taking a dip in Ganga also visit the temple of Kapil Muni.

Kapil Muni:

- Kapila or Maharishi Kapila is a Vedic sage (rishi) traditionally considered to be the original proponent of the Samkhya system of Indian philosophy.
- He is said to have lived in the Indian subcontinent, around the sixth or seventh century C.E.
- Kapila is described within the Puranas as an incarnation of Vishnu.
- He is known for teaching a process of liberation known as bhakti yoga.
- Buddhist sources present Kapila as a well-known philosopher whose students built the city of Kapilavastu
- He is not only renowned in Hinduism, but also in Buddhism.
- Kapila shared many similarities with Buddha, including an emphasis on meditation as a technique for removing suffering, belief that the Vedic gods were subject to limitations and conditions, and dislike for ritual and Brahmanic doctrines.

Where is Sagar Island Located?

- Sagar Island, westernmost island of the Ganges-Brahmaputra delta lies in West Bengal

- It lies at the mouth of the Hugli (Hooghly) River, an arm of which separates it from the mainland to the east.

Centrally Protected Monuments

Recently, The Ministry of Culture reported to Parliament that 50 of India's 3,693 centrally protected monuments were missing.

Why in news?

- The Ministry of Culture mentioned in its report titled 'Issues relating to Untraceable Monuments and Protection of Monuments in India' which was submitted to the Parliamentary Standing Committee on Transport, Tourism and Culture.

What are Centrally Protected Monuments?

- The Ancient Monuments and Archaeological Sites and Remains Act (AMASR Act) 1958 regulates the preservation of monuments and archaeological sites of national importance.
- The Act protects monuments and sites that are more than 100 years old, including temples, cemeteries, inscriptions, tombs, forts, palaces, step-wells, rock-cut caves, and even objects like cannons and mile pillars that may be of historical significance.
- The Archaeological Survey of India (ASI), which is under the aegis of the Union Ministry of Culture, functions under this Act.

What is ASI?

- It was founded in 1861 by a British Army engineer Alexander Cunningham who is also known as the 'Father of Indian Archaeology'.
- It engages in archaeological research and conservation, and protection and preservation of ancient monuments and archaeological sites in the country.
- ASI regulates all archaeological activities conducted in the country through the provisions of the Ancient Monuments and Archaeological Sites and Remains Act (AMASR Act), 1958.
- It also regulates the Antiquities and Art Treasure Act, of 1972.
- ASI has more than 3,693 protected monuments and archaeological sites of National Importance that it protects and preserves.

Maghi Mela

Recently Maghi Mela was held in the holy city of Sri Muktsar Sahib in Punjab

About Maghi Mela:

- It is held every year in January or the month

of Magh according to the Nanakshahi calendar.

- The Mela is celebrated in memory of 40 Sikh warriors who fought the Mughals in the battle of Khidrana, which was named Muktsar after the battle.
- The battle took place near a pool of water, Khidrane di Dhabi, on 29 December 1705.
- The bodies of the warriors were cremated the following day, the first of Magh (hence the name of the festival), which now falls usually on the 13th of January.
- Sikhs celebrate the Maghi with an end-to-end recital of the holy Guru Granth Sahib and religious rituals in all the Sikh Gurudwaras.

What is Nanakshahi Calendar?

- The Nanakshahi calendar was designed by Sikh scholar Pal Singh Purewal to replace the Bikrami calendar, to work out the dates of gurpurab and other festivals.

Nattukotai Nagarathas

- Sevvai Pongal which was held recently attracts hundreds of Nagarathas from across the globe.

About Nattukotai Nagarathas:

- Also called Nattukottai Chettiars, Nagarathas are a people of Indian origin, well known for their financial dealings and hospitality.
- They are followers of the Hindu religion and worship the Shiva and Muruga deities of the Hindu faith.
- They belong to a very prolific Business Community, who in olden days moved out of India to foreign lands like Burma, Ceylon, Java, Sumatra, Malaysia, Singapore & Vietnam (Saigon) .
- They hail from a place called Chettinad, an area situated in the South-Eastern region of Tamil Nadu.
- They are considered the pioneers of modern banking.
- They introduced concepts like pattru (debit), varavu (credit), selavu (expenditure), laabam (profit) and nashtam (loss). These are all collectively known as iynthogai (trial balance) - a unified document which reflects the current financial status of the business at any given time.
- They created 96 villages and built 9 temples with each family owing allegiance to a single temple only.
- The Nagarathas were the primary providers of capital to Burmese cultivators through much of the colonial period.

Chettinad region

- Almost centrally located in the southern Indian state of Tamil nadu, Chettinad is a culturally and historically important region famous for its unique cuisine, agriculture and architecture.
- The origin of Chettinad begins in the 13th century when the Nattukottai Chettiars migrated to Karaikudi.
- The new settlement eventually became the Chettinad region (Land of the Chettiars) of 96 villages (in 1947,) but now due to the movement of people out of certain villages, has diminished to about 75 villages.
- Chettinad has well planned towns provided with well defined roadways, reservoirs to store and supply water to the town, a planned market place, temples and everything, providing the basic needs of people.



2022 JANUARY MONTH QUESTIONS

1) Consider the following statements

- 1) It is a constitutional body for giving recommendations on distribution of tax revenues between the Union and the States and amongst the States themselves.
- 2) It is constituted at the end of every fifth year or earlier, as the deemed necessary by the President.

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

2) Consider the following statements

- 1) A company's book value is the amount of money shareholders would receive if assets were liquidated and liabilities paid off.
- 2) The market value is the value of a company according to the markets based on the current stock price and the number of outstanding shares.

Which of the statements given above is/ are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

3) Consider the following statements

- 1) The Drone Detect, Deter and Destroy system (D4S) is the first indigenously developed anti-drone system to be inducted into the Indian Armed Forces.
- 2) It is developed by Defence Research and Development Organisation (DRDO) and manufactured by Bharat Electronics Limited (BEL).

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

4) Consider the following statement regarding Aero India

- 1) It is a biennial air show and aviation exhibition held in Bengaluru, India at the Yelahanka Air Force Station.
- 2) It is organised by the Defence Exhibition Organisation, Ministry of Defence

Which of the statements given above is / are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

5) Justice Rohini commission was established to

- a) To increase the marriage age for girl child
- b) To sub categories OBC
- c) To reduce the inflation
- d) To improve the working of the governance

6) Which article of the indian constitution provide for the establishment of the National backward Commission?

- a) Article 340
- b) Article 360
- c) Article 180
- d) Article 270

7) Consider the following statement

- 1) The Grievance Appellate Committees (GACs) were set up by the central government to look into user complaints against large social media companies such as Facebook, Twitter and Instagram.
- 2) Each of the three GACs will have a chairperson, two whole-time members from various government entities and retired senior executives from the industry

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

8) Consider the following statement

- 1) The GAC will be a virtual digital platform that will operate only online and the digitally entire process, from the filing of an appeal to the decision, will be conducted digitally.
- 2) Users will have the option to appeal against the decision of the grievance officer of the social media intermediaries and other online intermediaries before this new appellate body

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

9) Consider the following statement

- 1) The National Logistic Portal (marine) (NLP) is a project of national importance, as envisaged by the Ministry of Ports Shipping Waterways and the Ministry of Commerce & Industry.
- 2) Its aim is to use IT to connect all logistics community stakeholders, to improve efficiency and transparency by reducing costs and time delays and achieving easier, faster, and more competitive service offerings

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

10) Consider the following statement regarding National Centre for Polar and Oceanic Research (NCPOR)

- 1) It is an autonomous research institute under the Ministry of Earth Sciences (MoES) established in 1998.
- 2) NCPOR is tasked with planning and executing polar expeditions and scientific research in Antarctica, Arctic, Himalayas and Southern Ocean.

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

11) Consider the following statement

- 1) The UGC Chairman recently revealed the framework of India's first-ever National Digital University(NDU) as envisioned under the National Education Policy, 2020.
- 2) The institution will function under a hub-and-spoke model, which is where one product is delivered to various stakeholders from a central location

Which of the statements given above is are correct?

- a) 1 only
- b) 2only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

12) Consider the following statements regarding Indus Water Treaty

- 1) It was signed in September 1960 between India and Pakistan.

- 2) The treaty was brokered by the World Bank, which too is a signatory to the treaty.

Which of the statements given above is / are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

13) Consider the following statements regarding Indus Water Treaty

- 1) The treaty allows India to use the western river waters for limited irrigation use and unlimited non-consumptive use for such applications as power generation, navigation, floating of property, fish culture, etc.
- 2) It gives control over the waters of the three "eastern rivers" -- the Beas, Ravi, and Sutlej -- to India, while control over the waters of the three "western rivers" -- the Indus, Chenab, and Jhelum -- to Pakistan.

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

14) Consider the following statement regarding National Level multistate cooperative export society:

- 1) This will be the largest of the three proposed national cooperative societies to be established under the Multi State Cooperative Societies (MSCS) Act, 2002.
- 2) It will act as an umbrella organization for export of surplus goods/services produced by various cooperative societies across the country.

Which of the statements given above is/ are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct

- d) Neither 1 nor 2 are correct

15) Consider the following statement

- 1) It is a legal document that states an individual's rightful inheritance of a property.
- 2) It is issued to the nation's underprivileged section, including scheduled castes, scheduled tribes, urban slum dwellers, handicapped, and other disadvantaged populations

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

16) Consider the following statement regarding Ken - Betwa link project

- 1) It is the first project under the National Perspective Plan for the interlinking of rivers.
- 2) It aims to provide irrigation to the Bundelkhand region, which is one of the worst drought-affected areas in India

Which of the statements given above is/ are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

17) Consider the following statement regarding Basmati rice

- 1) It is cultivated in the Himalayan foothills of the Indian sub-continent and is universally known for its long grain size, fluffy texture and unique inherent aroma and flavour.
- 2) It cultivated in the deep clay and loomy soil

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct

d) Neither 1 nor 2 are correct

18) Consider the following statement

- 1) National Centre for Good Governance is an autonomous institute under the aegis of the Department of Administrative Reforms and Public Grievances, Government of India.
- 2) It has been set up to assist in bringing about governance reforms through studies,

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

19) Consider the following statement regarding Titanosaur

- 1) They belong to the sauropod group. It is a humongous plant-eating lizard with a long neck and tail.
- 2) A group of Indian researchers found rare cases of fossilised dinosaur eggs - an egg within an egg - among 256 newly discovered eggs from the Narmada Valley.

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

20) Consider the following statement

- 1) The Government of India launched the PRASHAD scheme in the year 2014-2015 under the Ministry of Tourism.
- 2) Is a Central Sector Scheme with complete financial assistance by the Government of India

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct

d) Neither 1 nor 2 are correct

21) Consider the following statement

- 1) REHAB is a Bee-fences are created by setting up bee boxes in the passageways of elephants to block their entrance to human territories.
- 2) It is a cost-effective way of reducing human-wild conflicts without causing any harm to the animals.

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

22) Consider the following statement regarding KVIC

- 1) It is a statutory body established under the Khadi and Village Industries Commission Act, of 1956.
- 2) The KVIC is charged with the planning, promotion, organisation and implementation of programmes for the development of Khadi and other village industries in the rural areas in coordination with other agencies engaged in rural development wherever necessary

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

23) Consider the following statements regarding Bhoj wetland

- 1) It consists of two contiguous human-made reservoirs, the upper and lower lakes located in the city of Bhopal, Madhya Pradesh.
- 2) The lakes are very rich in biodiversity, particularly for macrophytes, phytoplankton, zooplankton, both natural and cultured fish species, both resident and migratory birds, insects, reptiles and amphibians

Which of the statements given above is are

correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

24) in which of the following states Kanha Tiger Reserve is located?

- a) Maharashtra
- b) Madhya Pradesh
- c) Andhra Pradesh
- d) Chattisgarh

25) in which of the following states Sariska Tiger Reserve is located?

- a) Rajasthan
- b) Gujarat
- c) Haryana
- d) Uttar Pradesh

26) Identify the tiger reserve associated with the following statement

- 1) It is nestled in the southern region of Western Ghats in the state of Kerala.
 - 2) It is drained by the rivers Mullayar and Periyar.
- a) Agasthyamalai tiger reserve
 - b) Srivilliputhur tiger reserve
 - c) Periyar tiger reserve
 - d) Bandhavgarh tiger reserve

27) Consider the following statement

- 1) It is a large wader bird with a white body and bare black head and neck. Males and females look similar and both have greyish tail feathers.
- 2) They are found primarily around wetlands including agricultural fields and occasionally around coastal areas.

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

28) Consider the following statement

- 1) Mahadayi river rises in the Western Ghats, from the Bhimgad Wildlife Sanctuary in Khanapur taluk of Karnataka's Belagavi district.
- 2) Also called Mandovi in Goa, Mahadayi is a rain-fed river that is shared between Karnataka and Goa for their water needs.

Which of the statements given above are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

29) in which of the following states is Salim ali Bird Sanctuary located?

- a) Goa
- b) Karnataka
- c) Maharashtra
- d) Gujarat

30) Namdapha National Park is located in

- a) Arunachal Pradesh
- b) Jammu and Kashmir
- c) Maharashtra
- d) Madhya Pradesh

31) Hoolock Gibbons (Hylobates Hoolock), a highly endangered and only 'ape' species found in

- a) North eastern india
- b) Northern india
- c) Eastern india
- d) Western India

32) Buxa Tiger Reserve is located in

- a) Jharkhand
- b) Chattisgarh
- c) West Bengal
- d) Maharashtra

33) Consider the following statement

- 1) Asiatic Wild Dog is found in three clusters across India namely the Western and Eastern Ghats, the central Indian landscape and North East India.
- 2) It is listed as the endangered species in the IUCN red list

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

34) Consider the following statement regarding Biligiri Rangan Hills

- 1) It is located northwest of the Western Ghats and on the westernmost edge of the Eastern Ghats.
- 2) The unique geographical positioning and diversity of habitats make BRT one of the richest areas for biodiversity in India.

Which of the above statement is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

35) Consider the following statement regarding Bardasagar reservoir:

- 1) It is located in the Porbandar district, Gujarat.
- 2) The Bardasagar dam and farms on its periphery are the ideal winter escape for thousands of cranes. Common crane and Demiselle crane.

Which of the above statement is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

36) Consider the following statement

- 1) Black vultures are most abundant at low elevations. They breed in dense woodlands but usually forage in open habitats.
- 2) It is mainly found in the northeastern United States to Peru, Central Chile and Uruguay South America

Which of the above statement is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

37) Consider the following statement

- 1) The Pallas's cat, also known as manul, is a small wild cat, perfectly adapted to the harsh conditions typical of its habitat.
- 2) Its distribution throughout montane grasslands and steppes of Central Asia

Which of the above statements given is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

38) Consider the following statement

- 1) National Mission for a Green India (GIM) is one of the eight Missions under the National Action Plan on Climate Change (NAPCC).
- 2) GIM was launched in the year 2014 as a Centrally Sponsored Scheme

Which of the above given statement is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

39) Consider the following statement

- 1) The Olive Ridley turtles are the smallest and most abundant of all sea turtles found in the world.
- 2) They are best known for their unique mass nesting called Arribada, where thousands of females come together on the same beach to lay eggs.

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

40) Consider the following statements regarding olive Ridley turtle

- 1) They are mainly found in the warm waters of the Pacific, Atlantic and Indian oceans
- 2) It is listed as the vulnerable in the iucn red list

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

41) Eravikulam National Park (ENP), a natural habitat for the endangered Nilgiri tahr is located in

- a) Kerala
- b) Karnataka
- c) Tamil Nadu
- d) Andhra Pradesh

42) Consider the following statement regarding Haiderpur wetland:

- 1) It is a human-made wetland that was formed in 1984 by the construction of the Madhya Ganga Barrage on a floodplain of the River Ganga
- 2) It is located in uttar pradesh

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

43) in which of the following state Hastinapur Wildlife Sanctuary is located?

- a) Uttarakhand
- b) Uttar Pradesh
- c) Andhra Pradesh
- d) Telangana

44) Consider the following statement regarding Ramsar Convention (Convention on Wetlands of International Importance):

- 1) It is an intergovernmental treaty that provides the framework for the conservation and wise use of wetlands and their resources.
- 2) The Convention was adopted in the Iranian city of Ramsar in 1971 and came into force in 1975.

which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

45) Machu Picchu an iconic tourist spot is located in

- a) Peru
- b) Argentina

c) South America

d) Japan

46) Consider the following statement regarding snow leopard

- 1) It is found in the mountainous regions of central and southern Asia.
- 2) In India, it is seen in Jammu and Kashmir, Himachal Pradesh, Uttarakhand and Sikkim and Arunachal Pradesh

Which of the statements given above is are correct?

a) 1 only

b) 2 only

c) Both 1 and 2 are correct

d) Neither 1 nor 2 are correct

47) Hemis National Park is located on

- a) Jammu and Kashmir
- b) Uttarakhand
- c) Uttar Pradesh
- d) Arunachal Pradesh

48) Ballavpur Wildlife Sanctuary is located in

- a) West Bengal
- b) Maharashtra
- c) Madhya Pradesh
- d) Uttar Pradesh

49) Consider the following statement

- 1) Amrabad Tiger Reserve which is part of the Nallamala Forest tract has rich Biological Diversity with several endemic species of flora and fauna.
- 2) This Forest tract is home to the largest number of Tigers in Telangana State

Which of the statements given above is are correct?

a) 1 only

b) 2 only

c) Both 1 and 2 are correct

d) Neither 1 nor 2 are correct

50) Consider the following statement

- 1) Bhitarkanika National Park is located in the Kendrapara district of Odisha.
- 2) It is India's second-largest mangrove ecosystem after the Sunderbans.

Which of the statements given above is are correct?

a) 1 only

b) 2 only

c) Both 1 and 2 are correct

d) Neither 1 nor 2 are correct

51) Consider the following statement

- 1) The sedge warbler is a medium-sized warbler of marshes, reedbeds and wetlands that can be spotted singing from perches on reeds and willow bushes.
- 2) The male sedge warbler introduces random phrases into its repertoire which is known for mimicking

Which of the statements given above is are correct?

a) 1 only

b) 2 only

c) Both 1 and 2 are correct

d) Neither 1 nor 2 are correct

52) Consider the following statement

- 1) Indian star tortoise is found in the central and Southern parts of India, in West Pakistan and Sri Lanka.
- 2) It is listed as a vulnerable status in the iucn red list

Which of the statements given above is are correct?

a) 1 only

b) 2 only

c) Both 1 and 2 are correct

d) Neither 1 nor 2 are correct

53) Consider the following statement

- 1) White Tufted Royal Butterfly is a rare species and is protected under Schedule 2 of the Wildlife Protection Act.
- 2) The wingspan of the butterfly is just 32-40 mm

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

54) Kuno Palpur National Park is located in

- a) Madhya Pradesh
- b) Maharashtra
- c) Rajasthan
- d) Gujarat

55) Consider the following statement regarding project cheetah

- 1) It is the World's first inter-continental large wild carnivore translocation project.
- 2) Project Cheetah was approved by the Supreme Court of India in January 2020 as a pilot programme to reintroduce the species to India.

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

56) Consider the following statement regarding black buck antelope

- 1) It is a species of antelope native to India and Nepal.
- 2) While males have corkscrew-shaped horns and black-to-dark brown coats, the females are fawn-coloured

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

57) Consider the following statement regarding spot Bellied Eagle Owl

- 1) It is a forest-inhabiting species found in India, Sri Lanka, Nepal, Bhutan, Bangladesh, Myanmar, China, Thailand, Laos, Cambodia and Vietnam.
- 2) These species occur in altitudes from 300 to 3000 meters

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

58) Seshachalam Hills is located in

- a) Telangana
- b) Andhra Pradesh
- c) Maharashtra
- d) Tamil Nadu

59) Srivenkateshwara National Park is located in

- a) Telangana
- b) Andhra Pradesh
- c) Maharashtra
- d) Tamil Nadu

60) Loktak lake is located in

- a) Manipur
- b) Meghalaya
- c) Assam
- d) Tripura

61) Consider the following statement

- 1) Loktak Lake is a freshwater lake in the north eastern india
- 2) It is famous for unique floating islands called Phumdis with multiple plant species.

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

62) Consider the following statement

- 1) The Keibul Lamjao National Park located on the Loktak Lake is the last natural habitat of the “Sangai” the dancing deer of Manipur.
- 2) The lake is designated as a wetland of international importance under the Ramsar Convention

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

63) Consider the following statement

- 1) Neelakuruj is scientifically known as Strobilanthus Kunsthaus,
- 2) It is a shrub that grows in the shola forests of the Western Ghats in South India

Which of the Statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

64) Consider the following statement regarding Wildlife Protection Act, 1972

- 1) This act was enacted for the protection of plants and animal species.

- 2) Also, this act established schedules of protected plant and animal species; hunting or harvesting of these species was largely outlawed

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

65) Coringa Wildlife Sanctuary is located in

- a) Andhra Pradesh
- b) Telangana
- c) Uttar Pradesh
- d) Uttarakhand

66) Consider the following statement regarding Gandak river

- 1) It is also known as the Kali Gandaki and Narayani after the confluence with Trisuli river in Nepal.
- 2) It is a north bank tributary of the Ganga in India

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

67) Consider the following statement regarding Nicobar long tailed macaque

- 1) It is a subspecies of the larger family of long-tailed macaques found across South-East Asia.
- 2) The macaque is found in only three of the Nicobar islands—Katchal, Little Nicobar, and Great Nicobar—with GNI being home to the largest population.

Which of the statements given above is are correct?

- a) 1 only

- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

68) Consider the following statement regarding Agriculture Insurance Company of India (AIC):

- 1) It was incorporated under the Indian Companies Act 1956 on 20th December, 2002.
- 2) The Company is under administrative control of the Ministry of Finance.

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

69) Consider the following statement

- 1) Under this scheme, exporters are provided with a refund of customs duty paid on unused imported goods, or goods that will be treated, processed or incorporated into other goods for export.
- 2) Claims must be lodged within 4 years from the date the goods were exporter

Which of the above statement is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

70) consider the following statement regarding Financial Services Institutions Bureau (FSIB)

- 1) It's a government body set up under the Department of Financial Services.
- 2) It replaced the Bank Board's Bureau (BBB) which was declared an incompetent authority

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only

- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

71) Consider the following statement regarding Financial Services Institutions Bureau (FSIB)

- 1) Its aim is to identify manpower capabilities and ensure proper selection of talent for senior positions at financial institutions owned by the government.
- 2) It is entrusted with making recommendations for the appointment of full-time directors and non-executive chairman of state-run financial services institutions.

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

72) Consider the following statement regarding International Financial Architecture Working Group

- 1) This G-20 finance track focuses on strengthening international financial architecture.
- 2) It will also aim to address various challenges faced by vulnerable countries.

Which of the statements given above is are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

Ans c

73) Nilgiri Thar is endemic to

- a) Western ghats
- b) Eastern Ghats
- c) Greater Himalayas
- d) Myanmar

74) Consider the following statement regarding mental health programme

- 1) Its aim is to address mental health issues among adolescent children in government and government-aided schools
- 2) Students in Classes IX to XII will be screened and taught relaxation techniques, life skill training, games and if needed, given professional counselling.

Which of the statement given above is/ are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

75) The Global Tamil Angels platform was launched at the “Global Startup Investors Summit,” co-organized by the _____ and FeTNA International Tamil Entrepreneur Network

- a) Tamil Nadu Startup and Innovation Mission
- b) Ministry of Skill and Development
- c) NITI Aayog
- d) Ministry of Finance

76) _____ has been awarded the Best Performing State for implementing the Rashtriya Bal Swasthya Karyakram (RBSK) programme,

- a) Tamil Nadu
- b) Karnataka
- c) Kerala
- d) Maharashtra

77) Consider the following statements

- 1) Tamil Nadu Emerging Sector Seed Fund (TNESSF) is a Government of Tamil Nadu initiative that has been established with the objective to invest in start-ups and undertakings in the sunrise/emerging sectors.
- 2) Its purpose is to identify and invest in “bankable” start-ups & emerging sector companies to add alpha to the business in the form of financial and non-financial support

Which of the statements above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 are correct

78) _____ wins World Habitat Award 2023 for its JAGA Mission

- a) Odisha
 - b) Andhra Pradesh
 - c) Karnataka
 - d) Kerala
- ans a

79) International Millets year is celebrated in the year

- a) 2022
- b) 2023
- c) 2024
- d) 2025

80) World Braille Day is observed on

- a) January 3
- b) January 4
- c) January 5
- d) January 6

81) The World Day of War Orphans is observed on

- a) January 6
- b) January 7
- c) January 8
- d) January 9

82) Whose arrival to India is celebrated as the Pravasi Bharatiya Divas 2023?

- a) Gandhiji
- b) Jawaharlal Nehru

c) Netaji

d) sardar valbhai patel

83) National Human Trafficking Awareness Day 2023 observed on

a) 11th January

b) 12th January

c) 13th January

d) 14th January

84) National Youth Festival is celebrated in the birth anniversary of

a) swami Vivekananda

b) Jawaharlal Nehru

c) Netaji subash chandra bose

d) Sardar Valabhai patel

85) 7th Armed Forces Veterans Day celebrates on

a) 11th January

b) 12th January

c) 13th January

d) 14th January

86) First indian Army day is celebrated in the year

a) 1947

b) 1948

c) 1949

d) 1950

87) National Startup day is celebrated on

a) January 14

b) January 15

c) january 16

d) January17

88) National Disaster Response Force Day celebrates on

a) 19th January

b) 20th January

c) 21st january

d) 22nd January

89) International Day of Education celebrates on

a) 24 January

b) 25January

c) 26 Janaury

d) 27 January

90) National Girl Child Day is celebrated on

a) 24 January

b) 25January

c) 26 Janaury

d) 27 January

91) National Voters' Day has been celebrated on

a)) 24 January

b) 25January

c) 26 Janaury

d) 27 January

92) Shaheed Diwas is celebrated on

a) 27 January

b) 28 January

c) 29January

d) 30 January

93) World Neglected Tropical Diseases Day observed on

a) 27 January

b) 28 January

c) 29 January

d) 30 January

94) World Leprosy Day is observed on the last _____ of January every year.

a) Sunday

b) Monday

c) Tuesday

d) Wednesday

95) 17th Pravasi Bharatiya Divas (PBD) will be held in

a) Madhya Pradesh

b) Maharashtra

c) Andhra Pradesh

d) Karnataka

96) Parasnath hills is located in

a) Jharkhand

b) Chattisgarh

c) Andhra Pradesh

d) Assam

97) North India's largest floating Solar project is located in

a) Uttar Pradesh

b) Chandigarh

c) Himachal Pradesh

d) Uttarakhand

98) _____ Becomes First Indian UT to Completely Shift to e-Governance Mode.

a) Jammu and Kashmir

b) Andaman and Nicobar Islands

c) Lakshadweep

d) Diu and Daman

99) Paigah Tombs is located in

a) Hyderabad

b) Pune

c) Mumbai

d) Delhi

100) India's first underwater metro to become operation by December 2023. It is located in

a) West Bengal

b) Odisha

c) Uttar Pradesh

d) Assam

Answers:

1	c	21	c	41	a	61	c	81	a
2	c	22	c	42	c	62	c	82	a
3	c	23	c	43	b	63	c	83	a
4	c	24	b	44	c	64	a	84	a
5	b	25	a	45	a	65	c	85	d
6	a	26	c	46	c	66	c	86	c
7	c	27	c	47	a	67	c	87	c
8	c	28	c	48	a	68	c	88	a
9	c	29	a	49	c	69	c	89	a
10	c	30	a	50	c	70	c	90	a
11	c	31	a	51	c	71	c	91	b
12	c	32	c	52	c	72	a	92	d
13	c	33	c	53	c	73	c	93	d
14	c	34	c	54	a	74	a	94	a
15	c	35	c	55	c	75	a	95	a
16	c	36	c	56	c	76	c	96	a
17	c	37	c	57	c	77	a	97	b
18	c	38	c	58	b	78	b	98	a
19	c	39	c	59	b	79	b	99	a
20	c	40	c	60	a	80	c	100	a