

THE OAS GAZETTE

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DECEMBER 2023



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Sahitya Akademi Yuva
Puraskar-2023



Odisha Tourism's
Eco Retreat
2023-24



Odisha Research Centre
Inaugurated in
Bhubaneswar



Western Odisha
Dairy Summit
2023



Date Palm
Jaggery from
Odisha

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COMPREHENSIVE COVERAGE OF CURRENT AFFAIRS FOR ODISHA STATE CIVIL SERVICES EXAMS



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SUCHISMITA PANIGRAHI
RANK 2



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And many more...

Odisha Current Affairs

Odisha Millets Mission Receives Global Model on Promotion Award

- Odisha Millets Mission (OMM) has been conferred with the prestigious "Global Model for Millet Promotion" award at the International Nutri-Cereals Convention 5.0 (INCC)
- The Indian Institute of Millets Research anchored the INCC, which brought together administrative heads, sector experts, thought leaders, researchers, key beneficiaries, and other stakeholders on a single platform
- The convention's theme is Mainstreaming Millets Now & Beyond 2023 which shows the importance of these ancient grains in today's time.

State wins gold at IITF

- The Odisha Pavilion got a gold medal for finest pavilion at the 42nd India International Trade Fair (IITF) in New Delhi. The pavilion, which grabbed a lot of attention because of its traditional design and elegance, got first place for quality in exhibition.
- The theme this year was 'Unity through Trade,' and the state pavilion displayed its ancient maritime trade, agricultural products, handloom, and artefacts.
- A marine boat called 'Boita' was stationed in the centre of the display arena.

Baliyatra

- The eight-day Baliyatra ('voyage to Bali') marine trade fair will begin on Kartika Purnima at Gadagadia Ghat on the banks of the Mahanadi.
- Baliyatra, which translates as "voyage to Bali," is one of the country's most popular open-air fares.
- Baliyatra is a week-long festival that begins on Kartik Purnima (the full moon night in Kartik).
- Every year, it commemorates the 2,000-year-old maritime and cultural links between ancient Kalinga (today's Odisha) and Bali, as well as other South and Southeast Asian territories such as Java, Sumatra, Borneo, Burma (Myanmar), and Ceylon (Sri Lanka).
- Historians say that prominent trade products between Kalinga and Southeast Asia included pepper, cinnamon, cardamom, silk, camphor, gold, and jewellery.

Odisha CM Sanctions Rs 86.25 Cr For 2 Instream Storage Structures In Kalahandi & Mayurbhanj

- The Odisha Chief Minister has approved the implementation of two instream storage structures for Rs 86.25 crore.

- While the Murlijhar project will be implemented in the Kalahandi district, the Damodarpur instream storage structure will be implemented in Mayurbhanj.
- The two projects will serve the people of Kalahandi's Bhawanipatna block and Mayurbhanj's Badasahi block.
- The projects will aid in raising groundwater levels.
- These will also aid in the areas' drinking water initiatives, fish farming, and animal husbandry.

Odisha Sets Up 'Ama Bank' To Provide Banking Services to Rural Areas

- The Chief Minister launched the 'Ama Bank' project, which will provide banking services through CSP Plus banking facilities in all unbanked Gram Panchayats in Odisha.
- The state government, in partnership with six public sector banks, namely SBI, PNB, UBI, UCO Bank, Bank of India, and Bank of Baroda, has launched the ambitious 'Ama Bank' initiative to provide banking services to every unbanked GP through CSP Plus banking facilities.
- Senior folks, individuals with disabilities, and pregnant women will receive doorstep banking services and Direct Benefit Transfers in a timely and hassle-free manner.
- During the first phase, the initiative will cover all 4,373 unbanked GPs in the state.

Sahitya Akademi Yuva Puraskar-2023

- Dileswar from Kalahandi district has received the Sahitya Akademi Yuva Puraskar for his book 'Seranra,' a collection of short stories.
- The book was chosen based on the recommendations of three famous state litterateurs: Bibhuti Pattnaik, Gobinda Chandra Chand, and Dash Benhur.
- The Sahitya Akademi Yuva Puraskar comes with a copper plaque as well as a cash prize of Rs 50,000.

Vedanta Aluminium Earns Prestigious Grow Care Awards

- Vedanta Aluminium, India's largest producer of aluminium, triumphed big at the Grow Care Awards, further solidifying its reputation as an employer of choice in the Indian manufacturing industry.
- The company's mega smelting operations at Jharsuguda, Odisha, won twin accolades in the categories of Employee Engagement and Best HR Strategy
- The awards underscore its efforts in fostering a dynamic and engaging workplace environment as

well as the innovative and effective strategies being deployed by the organization, respectively.

- Grow Care India is a non-profit organization established in 2016 and headquartered in New Delhi
- It is dedicated to recognizing outstanding performances in Human Resources, Environment, and Occupational Health and Safety.

Govt adopts carrot and stick approach for ULBs to complete PMAY-U houses

- With 47,000 houses to be constructed in the state under Pradhan Mantri Awas Yojana-Urban (PMAY-U) within 12 months, the government has rolled out a '100 days challenge' for the urban local bodies (ULBs) to ensure completion of maximum number of dwelling units within the given deadline.

Odisha Research Centre Inaugurated in Bhubaneswar

- Odisha Governor Raghubar Das and his Chhattisgarh counterpart Biswabhusan Harichandan jointly inaugurated the 'Odisha Research Centre' (ORC) and a one-day workshop on 'Knowledge Traditions of Odisha: A Futuristic Framework' in Bhubaneswar.

Milk Production in Odisha

- Milk production in Odisha has increased threefold in last two decades
- The state government is providing financial assistance up to Rs 1 crore for entrepreneurship development in dairy sector under Mukhyamantri Krushi Udyog Yojana
- Under the 5T initiative of the state government, an ultramodern dairy plant of 5 lakh litre capacity per day has been established at Arilo.
- Around 3 lakh dairy farmers benefitted through OMFED and the state government is taking measures like vaccination, deworming of cattle in Odisha.

Odisha Pavilion Wins Gold Medal for 'Excellence in Display'

- The Odisha Pavilion, which was the centre of attention from day one, continued its silver streak by reclaiming the coveted gold award as 'Excellence in Display' in the category of State Pavilion at the India International Trade Fair (IITF-2023).
- The pavilion, which was based on Odisha's old maritime trading history, had 24 stalls, including

well-known handloom outlets and government offices, and showcased the state's rich cultural heritage, handicrafts, and handlooms.

Odh won best film at the International Film Festival.

- Odh, a short film on Goa's disappearing beachlines, was named best film in the third edition of the '75 Creative Minds of Tomorrow' (CMOT) program, held during the International Film Festival of India (IFFI).
- The 75 Creative Minds of Tomorrow is an IFFI program that began in 2021 to commemorate India's 75th year of independence.
- The goal is to develop and foster young creative talents from various filmmaking paths.

Date Palm Jaggery from Odisha

- Date palm jaggery and sugar have been popular at the Odisha Pavilion during the ongoing India International Trade Fair 2023 (IITF).
- It is a natural product.
- It contains no artificial flavours.
- Date palm jaggery contains a variety of vitamins, minerals, and immune-boosting properties.
- This also aids in the control of blood sugar levels.

12 Major Industrial Projects Totaling Rs 84,918 Crore Obtain Odisha Government Approval

- The 33rd High-Level Clearance Authority (HLCA) cleared 12 significant industrial projects totaling Rs 84,918.75 crore in investment.
- These initiatives would employ 42,281 persons in Odisha.
- These significant investments will be made in the downstream sectors of apparel and textiles, green hydrogen and green ammonia, steel, power and renewable energy, and chemical and petrochemicals, which will contribute to Odisha's manufacturing capabilities.

Odisha experiences an increase in adoptions following a change to the Juvenile Justice Act.

- A year after amending the Juvenile Justice (Care and Protection of Children) Act to make adoption of orphaned and abandoned children easier, Odisha has seen a large increase in such youngsters seeking parental care, both inside and outside the state.
- According to CARA adoption data from April 2021 to March 2022, Odisha, with 150 in-country adoption figures, is in the top ten states with the

highest number of adoptions.

- During this period, Maharashtra had the most adoptions (499), followed by Tamil Nadu (294), Karnataka (250), West Bengal (229), Telangana (178), Uttar Pradesh (174), and Odisha.

New rules for the operation of boats in the rivers of Odisha soon

- The state government will soon bring in Odisha Inland Vessel Rules, 2023 to regulate the operation of boats in rivers, lakes, and reservoirs in the state to ensure the safety of passengers/tourists
- The Odisha Inland Vessel Rules, 2023 has been formulated with the assistance of the National Inland Navigation Institute (NINL), Patna.

Koraput farmers learn techniques to produce aromatic crops

- To enhance the income of tribal farmers, the Koraput district administration in collaboration with CSIR-Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow, imparted techniques for value addition of aromatic crop cultivation.
- Aromatic crops such as lemon grass, menthe, geranium, eucalyptus-scented rose, jasmine, chamomile and turmeric are being grown in the fields of tribal farmers in the district under the CSIR-Aroma mission and livelihood development programme of the district.
- Farmers in the district are now actively engaged in the production of essential oils and the workshop was helpful to them for value addition of their produce by creating essential oil-based commodities such as incense sticks, room sprays, roll-ons, and other toiletry products.
- Balangir Tops Migrant Labourers' List
- As many as 26,151 workers from Balangir district, the highest in Odisha, have migrated to other states.
- Nuapada district is the home to second highest number of migrant workers (8,205)

Odisha Chief Minister and FIFA President unveil FIFA talent academy in the state capital

- The Chief Minister, along with FIFA's head of global football development, Arsene Wenger, opened the AIFF-FIFA Talent Academy at Kalinga Stadium.
- The AIFF-FIFA Talent Academy is a major project to improve football development in India.
- The AIFF and FIFA are collaborating with the state government to create the academy.

- The academy will be led by a FIFA-appointed coach, as well as other AIFF and state government coaches and officials.

Odia Movie Phalguna Chaitra's Oscars 2024 Submission Accepted Odia movie 'Phalguna Chaitra' has successfully submitted for official entry for the most prestigious Oscars 2024.

- The film is a musical touching story depicting family values and the splendour of Odisha's culture, produced by Sakti Jagdev and directed by Sisir Kumar Sahu and Peenakee Singh.
- Sulagna Mohanty and Pranab Prasanna Rath wrote the screenplay for 'Phalguna Chaitra,' starring Partha Sarathi Ray.
- The 96th Academy Awards will take place on March 10, 2024, at the Dolby Theatre in Los Angeles.

NRRI Develops 9 New Varieties Of Paddy

- The ICAR-National Rice Research Institute (NRRI) in Cuttack, Odisha, has successfully developed nine new varieties of paddy in the current year.
- The central committee of the Indian Council of Agricultural Research (ICAR) has approved for the cultivation of these new paddy varieties in multiple states, including Odisha, Uttar Pradesh, Bihar, Jharkhand, Chhattisgarh, Madhya Pradesh, Maharashtra, Gujarat, Andhra Pradesh, Telangana, and Tamil Nadu.
- The following are the nine newly developed paddy varieties by NRRI:
 - CR 807
 - CR 804
 - CR 808
 - CR 211
 - CR 212
 - CR 214
 - CR 322
 - CR 329
 - CR 331

PM SHRI in Odisha

- In Odisha, the Union Education Department introduced the Pradhan Mantri Schools for Rising India (PM SHRI) project in 63 Kendriya Vidyalayas and Navodaya Vidyalayas.
- About the Pradhan Mantri Schools for Rising India Scheme (PM-SHRI): It is a Centrally Sponsored Programme that was announced in 2022.
- The goal is to develop more than 14500 schools

across the country by reinforcing chosen existing schools overseen by the Central Government, State Governments, UT Governments, and local governments.

- The initiative will run from 2022-23 to 2026-27, after which it would be the responsibility of the states/UTs to maintain the goals attained by these institutions.

Saluga Pradhan is named Deputy Speaker of the Odisha Assembly.

- MLA G Udayagiri Saluga Pradhan was named Deputy Speaker of the Odisha Legislative Assembly.
- The BJD MLA was unopposed for Deputy Speaker because the opposition parties did not submit a candidate.
- Rajanikant Singh resigned as Deputy Speaker on November 8, leaving the slot vacant.
- He resigned from his position for personal reasons.

Odisha is the recipient of two ISC-FICCI sanitation awards

- Odisha received two coveted India Sanitation Coalition (ISC)-FICCI Sanitation awards.
- The Housing and Urban Development Department's 'Garima' project for the safety, dignity, and well-being of Core Sanitation Workers (CSWs) was named Best Skilling Initiative in Sanitation.
- Meghna Sahoo, president of Transgender Swikruti SHG, which manages the Faecal Sludge Septage Plant (FSTP) at Basuaghai in Bhubaneswar, received the prize in the category of Women Changemakers in Sanitation.

Odisha to pilot SNA-SPARSH

- The state has been selected for piloting the fund flow mechanism SNA-SPARSH
- It is to ensure real-time quick transfers through the integration of the Centre's public fund management system, the state's integrated fund management system and RBI's e-Kuber platform.

Odisha Cabinet Approves 'Ama Hospital' Scheme

- The government established 'Ama Hospital' to work on enhancing healthcare services, with a focus on quality.
- A 5T transformation programme to make healthcare more patient-centric and to invest more in interventions that contribute to the ease of living of patients and family members visiting

public health institutions.

- Under this plan, the State government is making every effort to gradually convert all Public Health Facilities at the DHH, SDH, CHC, and PHC levels to be more patient-centered.

BMC Releases Gambusia Fish in Four Major Drains To Combat Mosquito Menace In Odisha Capital

- With mosquito breeding season on, Bhubaneswar Municipal Corporation (BMC) has released western Gambusia fish in at least four drains.
- This is to combat Dengue and Malaria menace and bring them under control.

Odisha Signs Trade Agreement with Vinh Long Province Of Vietnam

- Odisha government signed a trade agreement with Vinh Long province of Vietnam.
- The agreement has been signed between Odisha and Vinh Long for trade in 6 sectors of agriculture, industry, tourism, MSME, metals and minerals.

Ama Kuni Pilaa' campaign

- The Women and Child Development department launched the 'Ama Kuni Pilaa' campaign on the occasion of Children's Day.
- This is to promote parent-led home-based learning among children below the age of three.
- The department aims to institutionalise home-based learning among children through parent-led stimulation programmes for their brain development.
- It will be implemented through 75,000 Anganwadi workers in the state and the focus will be on men caregivers of a family.

Rourkela Airport now has CTR status.

- The Airport Authority of India (AAI) has designated Rourkela Airport as a Control Zone (CTR).
- A Control Zone (CTR) is an area of airspace established by authorities to provide Air Traffic Control (ATC) to aircraft operating inside it.
- CTRs are frequently built around airports to separate and orderly flow aviation traffic.

Rourkela to get Odisha's first velodrome

- Rourkela will be getting the first velodrome in Odisha.
- A velodrome is a cycling track with steeply

banked curves. It is built in such a manner that it can host all types of cycle races.

AIIMS-Bhubaneswar Inaugurates First Of Its Kind 'Travel Health Clinic'

- The Department of Community and Family Medicine, AIIMS-Bhubaneswar made yet another major contribution to improving healthcare services in India by setting up a new 'Travel Health Clinic' in the hospital.
- This is the first of its kind in Odisha and one among the very few in the country.
- The special clinic will run twice a week and will provide imminent travellers with essential vaccination services including some country-specific vaccines like Yellow fever vaccine
- It will advise regarding healthy behaviour during travel, assembling a customised medical kit for use in emergencies and the other 'Dos and Don'ts' during the period.

Odisha will construct 150 community centres for minorities

- The Chief Minister has authorised a proposal to build 150 multipurpose cultural-cum-community centres for Odisha's ethnic communities.
- The programme will aid in the preservation of the state's minority communities' culture and traditions.
- The state government has approved Rs 45 crore for the development of such facilities in 22 districts.
- The monies will be used to build community centres in these districts for Christians, Muslims, Buddhists, and Sikhs.
- The initiative intends to make space for persons from minority populations to participate in various community-based activities.
- Odisha Chief Minister Inaugurates International Convention on Millets

Chief Minister Naveen Patnaik inaugurates the International Convention on Millets in Bhubaneswar, Odisha.

- Emphasis on Odisha's role as a pioneer in designing a people-centric millet mission.
- Millets are traditional grains, climate-resilient, and crucial for nutrition.
- Inauguration and Vision:
- CM Naveen Patnaik inaugurated the convention by planting a sapling.
- The convention aims to create a global roadmap for millets.

- Odisha is the first state to organize such an international convention on millets.

Sundargarh district: Best performer in Millet's farming

- The tribal-dominated Sundargarh district in Odisha has achieved significant recognition for its performance in millet cultivation.
- Awards were presented during the two-day International Convention of Millets.
- Nuagaon in Sundargarh is acknowledged as the best-performing block in the state.

Kalinga Literary Festival

- The Kalinga Literary Festival (KLF) will have its tenth edition in Bhubaneswar, the state capital.
- 'Legends of Ancient Bharat and Beyond: Inspiring Lived Experience in the Twenty-First Century' is the theme.
- The Kalinga Literary Festival, popularly known as KLF, is an international literary festival held each year in the Indian city of Bhubaneswar, Odisha.
- The festival annually bestows three literary awards to notable Indian writers: the Kalinga Literary Award, the Kalinga International Literary Award, and the Kalinga Karubaki Award.
- The festival began in 2014 to promote Odia language, literature, and culture.

Online Platform SUJOG

- The Odisha government has instructed that all authorities involved in urban services accept payments via its 'SUJOG' online platform.
- H&UDD has launched 'SUJOG - Sustainable Urban Services in a Jiffy by Odisha Government' to roll out e-governance services across the state's ULBs.
- SUJOG will make urban governance transparent, technologically enabled, and time-bound through cooperation, resulting in a transformation in the lives of inhabitants in all of the state's Urban Local Bodies.

The Central Government has recognised two Berhampur ITI students

- The Central Government recognised two students from the Government ITI in Berhampur.
- Anurag Michael of the 3D printing department and P Kumari of the Electronics department were both awarded at the Centre's 'Kaushal Dikshant Samaroh' in Delhi.
- They won first place by creating a 23-foot elephant sculpture out of 30,000 plastic bottles as part of

Prime Minister Narendra Modi's 'Swachhata Hi Seva' drive for a garbage-free India.

Fast Track Special Court Established in Rourkela, Odisha

- A new Fast Track Special Court (FTSC) been opened in Rourkela, Odisha.
- The FTSC in Rourkela will handle POCSO Act charges as well as rape cases.
- The goal of Fast Track Special Courts is to accelerate justice in situations involving POCSO crimes and crime against women.

In Odisha, demand for the 'Global Sun Temple' is picking up again

- Kalinga Heritage Preservation Trust (KHPT) has renewed its call for a 'Global Sun Temple' similar to the 13th century Konark Sun Temple.
- KHPT is a group of archaeologists and heritage conservationists.
- The charity has created a 'Global Sun Temple' based on the architectural, spiritual, and social elements of the fallen Konark Sun Temple.
- It was planned to be a modern temple for the modern world, rather than a carbon replica of the current temple.
- It will display the art and architecture of Odishan temples, as well as their iconography.
- Because of its unique design and presentation, this secular temple of the Sun God will draw tourists and visitors from all over the world.

The state of Odisha has banned marine fishing in Olive Ridley turtle ecological corridors

- The Odisha government imposed a seven-month ban on sea fishing operations within 20 km of the shore at the mouths of the rivers Dhamara, Devi, and Rusikulya.
- This is to protect marine species such as Olive Ridley turtles during their mating and breeding season.
- The laws of the Orissa Marine Fishing Regulation Act (OMFRA) of 1982 and the Wildlife Protection Act of 1972 govern this.

Prativa Patnaik Woman Achiever Award

- India's Chief Justice Dr. Silpi Sahoo will receive the coveted Prativa Patnaik Woman Achiever Award from Dr. Justice DY Chandrachud.
- The NGO Capital Foundation Society is presenting the award.
- The NGO brings together thinkers and learners to

deliberate and articulate public opinion on critical problems.

- The honour will be presented at the Capital Foundation Annual Lecture and honour, 2023 function.

Odisha Tourism's Eco Retreat 2023-24

- Odisha Tourism's annual flagship camping event Eco Retreat commenced at four locations.
- Eco Retreat is being held at Hirakud, Daringbadi, Putsil, and Satkosia.
- Eco retreats are an ideal model for States to unlock the tourism potential of ecologically fragile areas with high seasonalities.
- It is a seasonal glamping event with facilities similar to star category hotel and resort, every year in different locations across the State.

Haematocon-2023

- The Indian Society of Haematology and Blood Transfusion (ISHBT) is set to host its 64th annual conference 'Haematocon-2023' in Bhubaneswar.
- The four-day global conference will deliberate on blood disorders and diseases, share ideas on latest advances in diagnosis and treatment that would directly translate to patient management in the country.
- Haematocon-2023 will have many firsts.

Odisha's Massive Palm Plantation Drive

- To avert human-elephant conflict, the Forest, Environment, and Climate Change (FE&CC) department intends to launch a huge palm (Tala) plantation drive along the designated forest area.
- A palm tree has numerous advantages.
- It also serves as a lightning arrester while protecting the forest block boundaries.
- It also offers food for wild animals, particularly elephants.

Kanakund is Odisha's Grand Canyon

- Kanakund is renowned as the "Grand Canyon of Odisha" in Odisha, India.
- It is located on the banks of the Ib River in the Balisankara neighborhood.
- The Ib River has carved up some stunning canyons in the area.
- Kanakund is a small village located a few kilometers from the Sundargarh District.
- It's around 50 kilometers from Sundargarh.
- Kanakund is now known as "KANHAKUND" by the Odisha Tourism Department.

Spirulina farming

- A 15-member Telangana government delegation

from six departments visited the Sundargarh district to learn about spirulina growing.

- Spirulina is a form of bacteria classified as cyanobacterium, sometimes known as blue-green algae, that grows in both fresh and saline water.
- It, like plants, derives energy from sunlight via the photosynthesis process.
- It develops and thrives in alkaline ponds and rivers with warm water.

Western Odisha Dairy Summit 2023

- Sambalpur will hold the Western Odisha Dairy Summit 2023 in collaboration with Samaleswari Milk Union Limited (SAMUL).
- 'Dairy for Livelihood and Growth' is the theme.
- The conference will provide possibilities for commercial connections as well as deep insights into cooperative management, government programmes and projects, technical breakthroughs and innovations, and the development of a skilled ecosystem.



**Admissions Open For
UPSC CSE 2023-24**

Optional Subject



Akhilesh Sir
Geography



Shewta Ma'am
Sociology



Ajay Sir
**PSIR & Public
Administration**



OPSC Current Affairs

**NATIONAL**

Bengaluru to build India's largest Circular Railway, measuring 287 kilometers in length

- Bengaluru, India's booming IT capital, is about to see a game-changing upgrade in its transport infrastructure with the unveiling of a 287-kilometer circular train. After a thorough examination of railway projects in Bengaluru, Railway Minister Ashwini Vaishnaw revealed this ambitious initiative during a press conference.

All 41 workers evacuated from the Uttarakhand Tunnel following 17 days

- After 17 gruelling days trapped underground, all 41 workers were successfully rescued from the collapsed Silkyara-Barkot tunnel in Uttarakhand, India, on November 23, 2023.
- The rescue operation, which featured the Indian Army, the National Disaster Response Force (NDRF), and local authorities working together, became a symbol of human resilience and determination in the face of tragedy.

India announces a Biogas Blending Strategy to reduce Natural Gas imports and achieve Net Zero Emissions

- The Indian government has planned a phased introduction of combining compressed biogas with natural gas, which is a big step towards energy sustainability.
- This effort seeks to increase domestic consumption, reduce dependency on natural gas imports, and contribute to India's goal of reaching net zero emissions by 2070.

President of India launches 'New Education for New India' Campaign in Odisha

- In a significant move towards fostering values and uplifting the consciousness of students, the President of India, Smt Droupadi Murmu, launched the 'New Education for New India' campaign by Brahma Kumaris, Sambalpur, in Sambalpur, Odisha on November 22, 2023.
- The campaign aims to instill moral values in students, contributing to the creation of a better

society.

India achieves historic milestone in Patent Grants: 41,010 Patents in 2023-24

- In a significant development, Commerce and Industry Minister Piyush Goyal announced that the Indian patent office has achieved an unprecedented milestone by granting a record-breaking 41,010 patents in the current fiscal year, up until November 15.
- This remarkable figure starkly contrasts with the 2013-14 fiscal year when only 4,227 patents were granted.

India's Strategic Move: Bidding on 20 Critical Mineral Blocks for Economic and Energy Transition

- The Indian government plans to accept bids for 20 important mineral blocks, including lithium and graphite, within the next two weeks, in a crucial step towards realising its energy transition ambitions.
- This programme is consistent with India's goal of guaranteeing local resources for the green energy transition while also strengthening national security.

On Janjatiya Gaurav Diwas, PM Modi will launch the PM-PVTG Mission and the Viksit Bharat Sankalp Yatra

- On November 15, Prime Minister Narendra Modi will inaugurate the PM-PVTG Development Mission, a game-changing initiative aimed at promoting the holistic development of about 28 lakh individuals from Particularly Vulnerable Tribal Groups (PVTGs).
- This historic occasion is set to coincide with the birth anniversary of the legendary tribal freedom fighter, Birsa Munda, which has been honoured as Janjatiya Gaurav Diwas for the previous three years.

Kozhikode and Gwalior join UNESCO Creative Cities Network

- In a recent announcement, UNESCO welcomed 55 new cities into its Creative Cities Network (UCCN), which focuses on promoting creativity as

a strategic factor in urban development. Notably, two Indian cities, Kozhikode and Gwalior, made their mark by joining this esteemed network.

- Kozhikode: The City of Literature
- Gwalior: The City of Music

Government launches 'Bharat Atta' project for Affordable Wheat Flour

- Union Minister for Consumer Affairs, Food, and Public Distribution, Piyush Goyal, has launched a substantial project under the 'Bharat' brand to offer customers with affordable wheat flour.
- This programme is to provide a cost-effective alternative to market prices, contribute to price moderation, and benefit ordinary customers.
- The introduction of 'Bharat' Atta is an important step in the government's commitment to supporting farmers and keeping basic commodities affordable for consumers.

Prime Minister Narendra Modi Elected Chairman of Shree Somnath Trust for a Five-Year Term

- In an unprecedented move, Prime Minister Narendra Modi was elected chairman of the Shree Somnath Trust (SST) for a five-year term, a substantial change from the trust's conventional one-year mandate.
- The decision, which was authorised by Gujarat's charity commissioner, emphasises the importance of continuity and leadership in operating the historic Somnath temple near Veraval.

Rajnath Singh officially opened the 'India Manufacturing Show'. Bengaluru is a city in India

- The Honourable Raksha Mantri, Shri Rajnath Singh, launched the three-day 'India Manufacturing Show' in Bengaluru, Karnataka, on November 2, 2023.
- This is the sixth installment of the show.
- This event is co-organized by Laghu Udhayog Bharti and IMS Foundation and supported by the Ministry of Defence's Department of Defence Production.
- Its major subject is "Make in India, Make for the World."
- The event not only acts as a showcase for cutting-edge technologies and developments, but it also emphasizes the importance of small-scale industries in India's economic landscape.

The NMC will develop a "one-nation, one-registration platform" for doctors

- The National Medical Commission (NMC) has launched on a campaign to assign a unique identity number to every doctor in the country by the end of 2024, which is a big step.
- The National Medical Register (NMR), which will serve as a centralized repository for doctors practicing in India, is the initiative's cornerstone.
- This measure is designed to improve transparency and streamline the healthcare system.

In India, the Education Minister reports a 37% increase in Women's Labor Force participation in FY23

- According to Union Education Minister Dharmendra Pradhan, women's labor-force participation in India has increased significantly, reaching 37% for the fiscal year 2022-23.
- This significant increase, compared to 23% in 2017-18, illustrates the impact of the government's concerted efforts to empower women in the workplace.

India to host 2024 World Telecommunication Standardisation Assembly

- India is set to host the prestigious World Telecommunication Standardisation Assembly (WTSA) in 2024, marking a significant step towards the advancements of 5G and 6G networks.
- Union Communication & IT Minister, Ashwini Vaishnaw, made this announcement at the India Mobile Congress 2023, emphasizing the country's growing importance in the global technology landscape.

Sarbananda Sonowal waves off the inaugural domestic sailing of India's first International Cruise Liner

- Shri Sarbananda Sonowal, Union Minister of Ports, Shipping and Waterways and AYUSH, launched the first journey of Costa Serena, India's first International Cruise Liner, from Mumbai.
- This historic event heralds the start of a new era in India's cruising and tourist industries, fueled by Hon'ble Prime Minister Shri Narendra Modi's imaginative "Dekho Apna Desh" plan.

Solar-powered 'Ramayana' Vessels to Navigate Ayodhya's Saryu River

- Two solar-powered 'mini-cruise' ships are poised to begin operations on the sacred Saryu River in Ayodhya, just ahead of the Ram Temple's inauguration in January next year.
- Under the direction of director Vikas Malviya, Varanasi-based Alaknanda Cruise will pioneer this unique service, giving an immersive experience centered on Lord Ram's life and teachings.
- The deployment of solar-powered 'Ramayana' watercraft along the Saryu River demonstrates a seamless integration of tradition and modernity.

India will preside over the International Sugar Organisation

- India will become the head of the International Sugar Organisation (ISO) in 2024, a significant milestone for the country.
- This leadership role reflects India's expanding prominence in the global sugar market as the world's largest consumer and second-largest producer of sugar.
- The announcement occurred during the ISO's 63rd council meeting in London.

Union WCD Minister Launches 'Anganwadi Protocol for Divyang Children'

- Smriti Zubin Irani, Union Minister for Women and Child Development and Minority Affairs, recently introduced the Anganwadi Protocol Divyang Children in a national outreach programme on November 28, 2023, at Vigyan Bhawan.
- Key officials, specialists, and stakeholders from several ministries and organisations attended the event, which intended to improve the overall well-being of Divyang children.

Amit Shah, Union Home Minister, has approved a \$1,658 million recovery and reconstruction plan for Joshimath

- Joshimath, a town in Uttarakhand, encountered serious hardships as a result of landslides and ground subsidence.
- The high-level central committee, led by Union Home Minister Amit Shah, adopted a comprehensive recovery and reconstruction (R&R) plan worth 1,658.17 crore to deal with the fallout from these natural calamities.



INTERNATIONAL

Commission on Social Connection: WHO

- The World Health Organization (WHO) has launched a Commission on Social Connection, co-chaired by U.S. Surgeon General Dr. Vivek Murthy and African Union Youth Envoy Chido Mpemba.
- Commission on Social Connection (2024–2026) is a 3-year initiative to address loneliness as a global health threat. The Commission consists of 11 policy-makers and advocates.
- It aims to analyze the role of social connection in health, well-being, economic progress, social development, and innovation.

Asia-Pacific Economic Cooperation Leaders' Summit 2023

- The Asia-Pacific Economic Cooperation (APEC) Leaders' Summit 2023 took place in San Francisco, United States.
- The APEC 2023 summit's theme is "Creating a Resilient and Sustainable Future for All".
- APEC reaffirmed its commitment to free, fair, and open trade and investment, and to advancing

inclusive and sustainable growth in the region.

- The summit concluded with the adoption of the Golden Gate Declaration.
- The declaration underscores the commitment to creating a resilient and sustainable future for all member economies.

Innovation Handshake: India and the US

- India and the United States have officially launched the "Innovation Handshake" agenda, a collaborative effort aimed at deepening bilateral ties in technology.
- The "Innovation Handshake" signals a commitment to strengthen the start-up ecosystem and promote cooperation in Critical and Emerging Technologies.
- The concept, developed under the US-India Commercial Dialogue, aims to connect dynamic start-up ecosystems, address regulatory hurdles, and promote innovation and job growth, especially in emerging technologies.
- The initiative focuses on priority sectors identified under the US-India Initiative for Critical and

Emerging Technology (iCET).

India-US 2+2 Ministerial Dialogue

- 5th Edition of the India-US 2+2 Ministerial Dialogue took place, where both countries highlighted progress in various areas of bilateral cooperation including defense, semiconductors, emerging technology, space, health, etc.
- The 2+2 meetings have been held annually with the US leaders since 2018.
- The 2+2 meetings signify the participation of two high-level representatives, Ministers holding Foreign and Defence portfolios, from each of the two countries who aim to enhance the scope of dialogue between them.
- Both nations aimed to collaboratively co-develop and co-produce defense systems, fostering a deeper partnership in defense technologies.
- India and the U.S. are currently negotiating deals for the purchase of MQ-9B unmanned aerial vehicles and the licensed manufacturer of General Electric's F-414 jet engine in India.

UN Office for The Coordination of Humanitarian Affairs

- According to the UN Office for the Coordination of Humanitarian Affairs (OCHA), Israeli settler violence has increased significantly, from an already high average of three incidents per day in 2023 to seven a day now.
- UN-OCHA was established by the General Assembly of the United Nations in 1991.
- It is responsible for bringing together humanitarian actors to ensure a coherent response to emergencies.
- It also ensures there is a framework within which each actor can contribute to the overall response effort.
- It replaced the Office of the United Nations Disaster Relief Coordinator (UNDRO).
- On-Site Operations Coordination Centres (OSOCC), an OCHA tool, provide a platform for the coordination of international response activities immediately following a sudden-onset emergency or a rapid change in a complex emergency.

- It has two headquarters locations, Geneva and New York, which act as centers of global operations.

76th Session of WHO Regional Committee for South-East Asia

- The Ministerial Roundtable Conference at the 76th session of the WHO Regional Committee for South-East Asia in New Delhi emphasized investment in primary health care (PHC) as the most inclusive, equitable, and cost-effective way to achieve Universal Health Coverage.
- The summit saw the signing of the Delhi Declaration, which emphasized the need of primary health care in achieving universal health coverage.
- Reiterating the Government of India's "Antyodaya" vision, it was stated that India's strong health system is based on a "whole of government" and "whole of society" approach with the goal of strengthening basic health services and health systems to pre-pandemic levels.

Russia withdrew from the Treaty of Conventional Armed Forces in Europe

- Russia formally withdrew from the Treaty of Conventional Armed Forces in Europe (CFE) recently.
- Treaty of Conventional Armed Forces in Europe (CFE) Negotiated during the final years of the Cold War and signed a year after the fall of the Berlin Wall, CFE placed limits on the deployment of military equipment to maintain military balance between North Atlantic Treaty Organization (NATO) and the then-Warsaw Pact countries.
- Its purpose was to stop Cold War rivals from building up forces that could be used in a swift assault.
- Twenty-two member states of the two military alliances, NATO and the Warsaw Pact came together in Paris on November 19, 1990, to sign the agreement.
- It finally entered into force on November 9, 1992. The Warsaw Pact by this time had disintegrated, and its treaty obligations were consequently passed to the pact's successor states.



Launch of Two India-led initiatives

- The Prime Minister of India announced the start of two India-led initiatives: the Global Digital Public Infrastructure Repository and a Social Impact Fund.
- The Ministry of Electronics and Information Technology (MeitY) founded it.
- It is a comprehensive resource hub that brings together critical lessons and knowledge from G20 members and guest countries.
- Its primary goal is to close the knowledge gap in the options and procedures required for DPI design, construction, deployment, and governance.

Rural Wages Data: RBI

- Data from the Reserve Bank of India highlights stark differences in rural wages across different states in India, showcasing significant disparities in earnings for farm and non-agricultural workers.
- During the fiscal year 2021-22, the rural economy faced challenges due to the Covid-19 pandemic affecting employment and income levels.
- In fiscal 2022-23, elevated inflation rates and increased interest rates significantly disrupted rural demand.
- These factors heavily impacted job opportunities and income stability in rural areas nationwide.
- Rural wages in Madhya Pradesh for agricultural and non-agricultural workers are significantly below the national average standing at Rs 229.2 and Rs 246.3 daily, respectively, impacting the livelihoods of rural families.
- Kerala boasts the highest wages across various sectors, with rural farm workers earning Rs 764.3 daily.
- In the case of wages for rural construction workers too, Kerala and Madhya Pradesh stand at opposite ends of the spectrum at Rs 852.5 and Rs 278.7 daily, respectively.
- National Average Wages:
 - Agricultural workers: Rs 345.7
 - Non-agricultural workers: Rs 348
 - Construction workers: Rs 393.3
- Despite some wage growth peaks in 2022-23, rural income prospects remained subdued, stagnating the real rural wage growth and indicating an incomplete recovery in the unorganized segment of the economy.

Rapid Innovation and Startup Expansion

- AIM, NITI Aayog launched a new accelerator called Rapid Innovation and Startup Expansion (RISE) to support Australian and Indian circular economy startups.
- The India Australia RISE Accelerator is delivered in partnership between CSIRO, Australia's national science agency, and Atal Innovation Mission (AIM), the Government of India's flagship initiative to promote a culture of innovation and entrepreneurship.
- This initiative focuses on startups and small to mid-sized enterprises (SMEs) in India and Australia working on circular economy technologies and solutions.
- Focus Themes: With a focus on Environment and Climate Technology, the program will be tailored to accelerate start-ups working on a range of areas:
 - Climate Smart Agriculture
 - Clean Energy
 - Circular Economy and Waste Management
 - Climate Smart Mobility.

RBI Risk Weighting

- The Reserve Bank of India (RBI) has increased the risk weight of such loans, raising the cost of funding for banks and non-bank financial institutions (NBFCs).
- The Reserve Bank of India has increased the risk weight on consumer loans by banks and NBFCs from 100% to 125%.
- Every rupee lent by the bank represents a cost or has an impact on its capital position, according to risk weight.
- These are used to calculate the minimum amount of capital that a bank must keep based on the risk profile of its lending activities and other assets.

Highest Number of Patents: Indian Patent Office

- The Indian Patent Office (IPO) has granted the most patents (41,010) until November 2023.
- In the fiscal year 2013-14, 4,227 patents were granted. According to a World Intellectual Property Organisation (WIPO) study, Indian patent applications increased 31.6% in 2022, extending an 11-year streak unmatched by any other country among the top ten filers.
- The increase in Indian patent grants indicates the country's success in innovation, technology, and

competitiveness.

- It also has an impact on society, the economy, and the youth by addressing issues, offering opportunities, and developing potential.

The NEST Initiative

- The Indian Green Building Council (IGBC) has launched the 'Nest' rating and certification project.
- The NEST programme aims to encourage environmentally friendly and sustainable building in the domestic housing industry.
- It would pave the way for individual home owners and the residential sector to implement green construction elements on a large scale in order to reduce power and water consumption and provide a healthier living area.

Central Adoption Resource Authority

- The Supreme Court questioned the “great delay” plaguing India’s adoption regulation body, the Central Adoption Resource Authority.
- The Supreme Court has recently questioned the significant delay in India’s adoption processes. Approximately 30,000 prospective parents wait for an average of three years, with only 10% of orphaned children adopted annually.
- It is a statutory body of the Ministry of Women & Child Development, Government of India.
- It is designated as the Central Authority to deal with inter-country adoptions in accordance with the provisions of the Hague Convention on Inter-country Adoption, 1993, ratified by the Government of India in 2003.
- It is the nodal body regulating the adoption of “orphaned, surrendered and abandoned children” in India.
- It monitors and regulates bodies such as the State Adoption Resource Agency (SARA), Specialised Adoption Agency (SAA), the Authorised Foreign Adoption Agency (AFAA), Child Welfare Committees (CWCs), and District Child Protective Units (DPUs).

Amazon WoW: A Networking Platform for Indian Women Engineering Students

- The Amazon Women of the World (WoW) programme connects female engineering students in India with Amazon leaders and recruiters through a networking platform.
- Each session will have a limited number of spots available, which will be filled via RSVP. To participate in the live session, participants must register for each session.
- They will also get access to session recordings

following the completion of each session.

- It provides skill-development sessions, career advice from graduates, and information about Amazon's culture.
- It intends to encourage resource optimization, upskilling, and promotion of STEM (Science, Technology, Engineering, and Mathematics) careers among women.

Hello Naariyal: Coconut Development Board

- To assist farmers with coconut harvesting and plant management operations, the Coconut Development Board (CDB) launched the 'Hello Naariyal' Friends of Coconut Trees (FoCT) call center facility.
- Hello, Naariyal is a call center in Kerala that operates from the Board's headquarters in Kochi.
- Through the Board's respective unit offices, the program will help coconut growers and extend its services to traditional coconut-growing states of Tamil Nadu, Andhra Pradesh, and Karnataka.
- Coconut farming activities such as coconut tree climbing, plant protection, harvesting, seed nut procurement, and nursery management would be provided at the block and gram panchayat levels in different districts.
- It is a statutory body established by the Government of India.
- It was established for the integrated development of coconut production and utilisation in the country, with a focus on productivity increases and product diversification.
- The board came into existence on January 12, 1981.
- It functions under the administrative control of the Ministry of Agriculture and Farmers Welfare, Government of India.
- Headquarters: Kochi in Kerala
- It has regional offices in Bangalore in Karnataka, Chennai in Tamil Nadu, Guwahati in Assam, and Patna in Bihar.

The MSCI Index

- MSCI, the global index provider, has announced the addition of nine stocks to its MSCI Global Standard Index, effective November 30, 2023.
- Morgan Stanley, a multinational investment management and financial services firm, owns the MSCI Index.
- It is an investment research organisation that provides institutional investors and hedge funds with stock indexes, portfolio risk and performance analytics, and governance tools.
- It is a global leader in the provision of important decision support tools, such as stock indexes, and

services to the financial community.

- MSCI indices make it easier to build and analyse portfolios in a consistent and comprehensive manner, avoiding benchmark mismatches.

New Inflation Data

- Retail inflation fell to 4.87% in October 2023, from 5.02% in September 2023.
- Retail inflation was 4.87 percent in October, down from 5.02 percent in September of this year, according to the Consumer Price Index (CPI).
- Inflation is defined as a long-term increase in the general price level of goods and services in an economy.
- It is the rise in the prices of most every day or ordinary products and services, such as food, clothing, housing, recreation, transportation, consumer staples, and so on.
- Inflation is defined as the average price change over time of a basket of commodities and services.

QS World University Rankings: Asia 2024

- The global higher education think-tank Quacquarelli Symonds has released the QS Asia University Rankings: Asia 2024, including 148 universities from India in the comprehensive list of 856 universities across Asia.
- Key Highlights of the QS World University Rankings: Asia 2024

Top Ranking Universities:

- Peking University (China) topped the list, followed by the University of Hong Kong (Hongkong) and National University of Singapore (NUS) (Singapore).

Indian Universities' Performance:

- IIT Bombay retains its top ranking in India and is ranked 40th in Asia.
- Seven Indian institutions are among the top 100 in Asia, with five of them being Indian Institutes of Technology (IITs), along with the Indian Institute of Science, Bangalore, and Delhi University.
- Payment Aggregator Cross-Border
- The Reserve Bank of India (RBI) has designated as Payment Aggregator-Cross Border (PA-CB) those organisations that facilitate cross-border payments for the import and export of goods and services.
- Payment Aggregator-Cross Border (PA-CB) permits cross-border internet payments for permitted products and services import and export.
- The RBI has established a minimum net worth criterion of Rs 15 crore for these PA-CB businesses.
- They shall be responsible for ensuring that they do not facilitate payment transactions for the import

of any restricted or prohibited goods or services.

- If the transaction exceeds Rs 2.5 lakh, the PA-CB must also conduct due diligence on the buyer.

Small Modular Reactors

- The Indian Government is considering offering incentives, similar to a production-linked incentive (PLI) scheme, to encourage the manufacturing of small modular reactors (SMRs) with the goal of increasing nuclear power's share in India's energy production.
- The government aims to attract private investments and scale up SMR production to reduce costs.
- PLI schemes, introduced in 2020, provide financial incentives based on a share of the sales value and have been implemented in various sectors.
- Small modular reactors (SMRs) are advanced nuclear reactors with a power capacity of up to 300 MW(e) per unit.
- This is about one-third of the generating capacity of traditional nuclear power reactors.
- SMRs are smaller than conventional nuclear reactors and can be built in one location, such as a factory, then shipped, commissioned, and operated at a separate site.
- This offers significant savings in cost and construction time.
- SMRs can produce a large amount of low-carbon electricity.

Indigenous Charging Standards: BIS

- The Bureau of Indian Standards (BIS) has certified IS17017 (Part 2/Sec 7): 2023, an indigenous AC and DC mixed charging connector standard for light electric vehicles (LEVs).
- This is the world's first of its kind, developed in India.
- This programme enables Indian original equipment manufacturers (OEMs) to rely less on international standards and protocols.
- The new standard solves the need for a standardized connector for combined AC and DC charging systems for two-wheelers, three-wheelers, and microcars, while also providing a hybrid and cost-effective infrastructure for all types of charging.
- It provides compatible networks for both rapid and slow charging, allowing users to charge their EVs without having to carry large chargers.

China and the Lewis Model

- The Lewis Model has proven successful in China; nevertheless, India is grappling with its implementation, meeting difficulties in the shift

from agriculture to industrialization.

- In addition, as manufacturing becomes more capital intensive, India is considering changing to a 'farm-as-factory' labour model in response.
- In 1954, economist William Arthur Lewis proposed the "Economic Development with Unlimited Labour Supply."

- Lewis received the Nobel Prize in Economics in 1979 for this study.
- According to the idea, surplus agricultural labour may be transferred to the manufacturing sector by paying wages just high enough to entice workers away from the farm.

DEFENCE AND SECURITY



The 17th iteration of Joint Military Exercise SURYA KIRAN

- The 17th iteration of Joint Military Exercise SURYA KIRAN will take place from November 24th to December 7th, 2023, in Pithoragarh, Uttarakhand.
- SURYA KIRAN is a combined military exercise between the Indian and Nepali armies.
- It is an annual event that alternates between the two countries.
- A battalion from the Kumaon Regiment leads the Indian Army contingent of 354 troops. The Tara Dal Battalion represents the Nepal Army contingent.
- The exercise's goal is to improve interoperability in jungle warfare, counter-terrorism operations in hilly terrain, humanitarian assistance, and disaster relief in accordance with the United Nations Charter on peacekeeping missions.

Inter Command Ocean Sailing Race 2023

- The Navy flagged off the second edition of the Inter Command Ocean Sailing Race 2023 from Kochi to Goa in a ceremony held at Naval Base, Kochi, recently.
- The race features four 40-footer sailboats, INSV Bulbul, INSV Neelkanth, INS Kadalpur, and INSV Hariyal, promising an adventurous journey in the Arabian Sea.
- Each sailboat has a crew of eight personnel from three naval commands and a combined team from Andaman and Nicobar Command, including the Delhi area.
- The race will cover an approximate distance of 667km between the start point at Naval Base, Kochi, and Goa in about five days.

Exercise AUSTRAHIND-23

- A delegation of 81 Indian Armed Forces soldiers left for Australia to participate in the second edition of Joint Military Exercise AUSTRAHIND-23.
- The first round of Exercise AUSTRAHIND-23 took

place in Mahajan, Rajasthan, in 2022.

- It is intended to be an annual training session held alternately in India and Australia.
- The exercise's goal is to build collaborative partnerships and share best practises between the two parties.
- The exercise will take place this year in Perth, Australia, from November 22nd to December 6th, 2023.

Naval Anti-Ship Missile Short Range

- Recently, the Indian Navy, in collaboration with DRDO, completed Guided Flight Trials of the first indigenously developed Naval Anti-Ship Missile Short Range (NASM-SR) from a Sea King 42B helicopter.
- The Naval Anti-Ship Missile Short Range (NASM-SR) is the Indian Navy's first indigenous air-launched anti-ship cruise missile.
- The Defence Research and Development Organisation (DRDO) created it.
- Attack helicopters can deploy it.
- This missile will replace the Navy's current Sea Eagle missiles.

Exercise Vajra Prahar 2023

- The "VAJRA PRAHAR 2023" Indo-US Joint Special Forces exercise began at the Joint Training Node in Umroi, Meghalaya.
- VAJRA PRAHAR is a joint exercise between the Indian Army and the United States Army Special Forces.
- Its goal is to share best practises and experiences in areas like cooperative mission planning and operational strategies.
- The 14th edition of the Indo-US Joint Special Forces exercise "VAJRA PRAHAR 2023," which began at the Joint Training Node in Umroi, has begun.

Coastal Security Exercise, Sagar Kavach

- The coastal security drill 'Sagar Kavach' will take place along the Kerala and Mahe coasts.

- The semi-annual exercise is a joint endeavour in which many national and state organisations actively participate, demonstrating a cohesive approach to bolstering India's coastal defences.
- 'Sagar Kavach,' coordinated by the Indian Coast Guard, brings together forces from the Indian Navy, Coastal Police/State Police, Intelligence Bureau, Customs, CISF, Department of Port, Department of Fisheries, Directorate General of Lighthouse and Lightships (DGLL), and Kadalora Jagiratha Samithi.
- The exercise is intended to address the inherent challenges of coastal terrain by ensuring that security measures are resilient and adaptable to a variety of scenarios.

Kavro Doma 360

- Kavro Doma 360 is the world-first rifle-rated ballistic helmet.
- It was indigenously developed by Kanpur-based MKU Limited.
- The world's first uniform rifle protection helmet: It offers uniform protection in all 5 zones of the head (front, back, left, right, and crown) against threats like the AK-47 MSC, M80 NATO BALL, and M193 rifle bullets.
- The only boltless rifle protection helmet to date:
- It's the first anti-rifle helmet in the world that does not have bolts or any metal parts.

Zorawar Light Tank: Ready for Trials

- India's indigenously designed and developed light tank, tentatively named Zorawar, is likely to be ready for trials soon.
- Zorawar Light Tank is an indigenously designed and developed Light Tank.
- It was developed by the Defence Research and Development Organisation (DRDO) in collaboration with Larsen & Toubro Limited.
- It is designed to operate in varying terrains, from high-altitude areas and marginal terrains to island territories.
- It will be highly transportable for rapid deployment to meet any operational situation.

Vajra Prahar 2023

- 'Vajra Prahar 2023,' a cooperation military exercise between India's special forces and the United States, has begun at Meghalaya's Umroi Cantonment.
- According to a Defence spokeswoman, this is the 14th edition of the joint exercise, which emphasizes the exchange of best practices and experiences in areas like as combined mission planning and operational tactics.

- The US contingent for 'Vajra Prahar 2023' consists of men from the 1st Special Forces Group.

Nirbhay Cruise Missile

- The Indian armed forces will be inducting the long-range attack cruise missile Nirbhay into their inventory to strike targets at ranges over 1,000 km.
- Nirbhay Cruise Missile is a long-range sub-sonic cruise missile.
- It is India's first indigenously-produced cruise missile.
- The missile was developed by the Bengaluru-based Aeronautical Development Establishment, a lab under India's Defence Research and Development Organisation (DRDO).
- It is capable of deep penetration into adversary territory to strike high-value targets with precision.

INS Sumedha

- The INS Sumedha docked in Walvis Bay, Namibia.
- INS Sumedha visited Walvis Bay, Namibia, as part of the Indian Navy's mission-based deployment to West Africa and the Atlantic.
- This port call exemplifies India's warm ties with Namibia, as well as its desire to improve maritime security and exhibit solidarity with friendly states.

Exercise CORPAT and Bongosagar

- The Indian Navy and the Bangladesh Navy conducted Exercise CORPAT and BONGOSAGAR in the Northern Bay of Bengal from November 7 to November 9, 2023.
- The fourth iteration of the BONGOSAGAR and the fifth edition of the Coordinated Patrol (CORPAT) exercise. Both are bilateral naval drills.
- The Indian Navy ships Kuthar and Kiltan, as well as the Maritime Patrol Aircraft (MPA) Dornier, took part in the drill, as did the Bangladesh Navy ships Abu Bakr and Abu Ubaidah.
- CORPAT-23 also included the first Humanitarian Assistance and Disaster Relief (HADR) drills between the two fleets, which included a Search and Rescue scenario at sea.
- INS Kuthar is an indigenously manufactured guided-missile Corvette, whereas INS Kiltan is an indigenously designed anti-submarine Corvette.

Arrow-3 Missile Defence System

- Israel has revealed that it used its advanced Arrow 3 missile interceptor against Houthis rebels backed by Iran.
- Arrow-3 Missile Defence System is an exo-atmospheric anti-ballistic missile defence system for long-range threat engagement.

- Israel Aerospace Industries and the US Missile Defence Agency collaborated to develop the missile.
- Arrow-3 is the highest tier of Israel's advanced air-defense network, first deployed in 2017.
- Its purpose is to intercept ballistic missiles while they are still outside the atmosphere.

Submarine Class Ohio

- A nuclear-powered Ohio-class submarine from the United States was recently deployed in the Middle East to assist prevent the Israel-Hamas conflict from escalating into a larger battle.
- The Ohio class is a type of nuclear-powered submarine currently in operation by the US Navy.
- They are the largest submarines ever constructed for the United States Navy.
- The US Navy possesses 18 Ohio-class submarines, 14 of which are ballistic missile submarines (SSBNs) and four of which are cruise missile submarines (SSGNs).
- The SSBN submarines, often known as "Trident" submarines, are the sea-based leg of the United States' nuclear triad.
- The 14 SSBNs carry roughly half of the S. active strategic thermonuclear weapons.

Indo-Pacific Maritime Domain Awareness (IPMDA) initiative

- According to the Indian Navy Chief Admiral, the Indo-Pacific Maritime Domain Awareness (IPMDA) effort demonstrates the country's commitment to a free, open, inclusive, and rules-based Indo-Pacific region.
- At the 2022 Quad Leaders' Summit in Tokyo, the Indo-Pacific Maritime Domain Awareness (IPMDA) initiative was announced.
- It was announced that it would track "dark shipping" and create a "faster, wider, and more accurate maritime picture of near-real-time activities in partners' waters" by integrating three crucial Indo-Pacific regions – the Pacific Islands, Southeast Asia, and the IOR.
- It is a technology and training programme to raise maritime domain awareness in the Indo-Pacific region and increase transparency in its important waterways.
- Bulava Ballistic Missile Test Launched Successfully
- Russia just conducted a successful test launch of the Bulava nuclear-capable ballistic missile.
- Bulava Ballistic Missile is a new Russian Intercontinental Ballistic Missile (ICBM) launched from a submarine.

The development of this missile began in 1998

- The Bulava missile's first powered flight test took place in September 2005. In December, it conducted its first submerged test launch.
- It was intended for use on Russia's Borey-class ballistic missile submarines (SSBNs).
- It was supposed to be the backbone of Moscow's nuclear triad, with a range of about 8,000 kilometres (around 5,000 miles).

Minuteman III Missile

- The Pentagon (the USA's Department of Defence) announced the latest test of the Minuteman III intercontinental ballistic missile to "showcase" its nuclear capability.
- The launch of this missile will take place today at the Vandenberg Space Force Base in Southern California.
- The silo-launched missile will be tested without a warhead attached.
- The announcement comes amid rising geopolitical tensions as the Russia-Ukraine conflict drags on, the Israel-Hamas war escalates, and US-China relations continue to deteriorate.
- Minuteman III missile is a strategic weapon system using a ballistic missile of intercontinental range and first became operational in the early 1970s.

Exercise KAZIND-2023

- The Indian Army and Indian Air Force contingent of 120 troops has left for the Joint Military 'Exercise KAZIND-2023' in Otar, Kazakhstan, which will take place from October 30th to November 11th, 2023.
- Kazind exercise KAZIND-2023 is the seventh edition.
- In 2016, India and Kazakhstan launched 'Exercise PRABAL DOSTYK,' a joint military exercise.
- The Exercise was raised to a company-level exercise and called 'Exercise KAZIND' after the second edition.
- This year, the Exercise was upgraded to a Bi-service Exercise by integrating an Air Force component.

Light Combat Helicopter Prachand

- The Indian Army's Light Combat Helicopter (LCH) Prachand successfully fired 70 mm rockets and 20 mm turret guns for the first time both day and night.
- Helicopter Combat Light Hindustan Aeronautics Limited (HAL) built the Prachand, India's first indigenous multi-role combat helicopter.

- It is intended to satisfy the requirements of Indian armed forces operating in deserts and rugged terrain.

- The Shakti Engine, co-developed by HAL and France's Safran, powers the helicopter.
- In 2017, the helicopter obtained operating approval.

SPORTS



Odisha to Host Ultimate Kho Kho Season 2 from December 24, 2023

- Ultimate Kho Kho (UKK) is gearing up to enthral spectators with its spectacular second edition, which will begin on December 24, 2023 and conclude on January 13, 2024, in a thrilling continuation of its debut success.
- The Jawaharlal Nehru Indoor Stadium in Cuttack, Odisha, will host this high-octane athletic event, promising excitement and pleasure to the millions of spectators who are impatiently awaiting its return.

Anish Bhanwala is the first Indian shooter to win a medal in the ISSF World Cup Final in 25m Rapid Fire

- Anish Bhanwala made history by becoming the first Indian shooter to win a medal at the ISSF World Cup Final in the men's 25m Rapid Fire event.
- This achievement eclipsed the efforts of previous Indian shooters such as Vijay Kumar in 2009 and Gurpreet Singh in 2015, who reached the final but did not win a medal.

Anahat Singh Becomes Second Youngest to Win National Squash Championship Title

- In a remarkable turn of events at the Senior National Squash Championships 2023, 15-year-old Anahat Singh scripted history by becoming the second youngest title winner in the tournament's prestigious history.
- The young prodigy faced off against Tanvi Khanna in the final, where Khanna was unfortunately forced to retire midway through the match due to a knee injury.
- Anahat's victory marked a historic moment, as she triumphed against her opponent who is 12 years her senior.

Senior Men National Championship 2023

- In a thrilling final match, Hockey Punjab emerged victorious over Hockey Haryana to clinch the gold

medal at the 13th Hockey India Senior Men National Championship 2023.

- The tournament was held from November 17 to 28, 2023, at the Mayor Radhakrishnan Hockey Stadium in Chennai, Tamil Nadu.

Max Verstappen won the Las Vegas Grand Prix 2023

- Max Verstappen emerged on top at the end of an action-packed Las Vegas Grand Prix, beating Ferrari rival Charles Leclerc and Red Bull teammate Sergio Perez.
- Max Emilian Verstappen is a Belgian and Dutch racing driver and the 2021, 2022, and 2023 Formula One World Champion.
- Ferrari's Leclerc passed Sergio Perez on the final lap to clinch second place, while British star Lando Norris ended up in hospital after a third-lap 180mph crash.
- Lewis Hamilton finished seventh.

ICC bans Transgender Players from International Women's Cricket

- In a significant policy decision, the International Cricket Council (ICC) has recently implemented a ban on transgender cricketers from participating in international women's cricket at the highest level. This decision has raised discussions around inclusivity, athlete rights and the impact of the ban on transgender individuals.
- The move is said to be in alignment with the International Olympic Committee's (IOC) guidelines, considering cricket's inclusion in the 2028 Olympics.

Novak Djokovic wins Record Seventh ATP Finals title

- Novak Djokovic made history on November 19, by securing his seventh ATP Finals title in Turin, Italy.
- The world number one defeated local favorite Jannik Sinner in a commanding fashion with a 6-3, 6-3 victory.
- This triumph places Djokovic ahead of the retired Roger Federer in ATP Finals victories, capping off a remarkable season that included three Grand Slam wins, bringing his total to a record-breaking

24 and claiming his 40th Masters 1000 title.

AIFF and Odisha Govt ink MoU for FIFA-AIFF Academy

- On November 21, 2023, a significant milestone was achieved in Indian football as the All-India Football Federation (AIFF) and the Government of Odisha, in collaboration with FIFA, signed a Memorandum of Understanding (MoU) to establish the AIFF-FIFA Talent Academy.
- The ceremony, graced by the presence of Mr. Arsene Wenger, FIFA's Chief of Global Football Development, marked a crucial step toward nurturing and developing football talent in India.

World Billiards Championship

- Pankaj Advani of India won his 26th IBSF World Billiards Championship title with a stunning comeback, defeating compatriot Sourav Kothari in the final.
- Advani came from a 26-180 deficit in the first hour to win convincingly 1000-416 in a replay of last year's title match in Kuala Lumpur.
- The encounter demonstrated Advani's tenacity and skill, as well as his domination in the world of billiards.

Australia won the ICC Cricket World Cup 2023 by 6 Wickets

- ICC Cricket World Cup 2023, Australia has lifted the World Cup trophy by defeating India with a convincing 6-wicket margin.
- Australia reached the target in 42.5 overs with six wickets in hand. Australia faced an early setback in the ICC Cricket World Cup 2023 final when David Warner (7) fell to Mohammed Shami, and later, Jasprit Bumrah dismissed Mitchell Marsh (15) and Steven Smith (4). At 47 for 3, the team was in a precarious position.

The petroleum minister officially kicks off the third Hockey India Women's Championship

- Shri Hardeep Singh Puri, Hon'ble Minister of Petroleum and Natural Gas & Housing and Urban Affairs, inaugurated the 3rd Hockey India Senior Women Inter Department National Championship 2023 at Shivaji Stadium.
- The ceremony was an exciting start to an event that promised to showcase the best female hockey talent from across the country.

Indian Skydiver Shital Mahajan makes history near Mt. Everest

- In a groundbreaking achievement, Indian skydiver Shital Mahajan has etched her name in history by jumping off a helicopter from a staggering height of 21,500 ft near the world's highest peak, Mt Everest.
- This remarkable feat marks her as the first woman to accomplish such a daring skydive. Mahajan skillfully landed at Kalapatthar peak, situated at an altitude of 17,444 ft.
- Shital Mahajan's historic skydive near Mt Everest is an inspiration for aspiring adventurers.

Raja Bhalindra Trophy

- The recently concluded 2023 National Games showcased an extraordinary display of athleticism, determination, and sportsmanship, with nearly 11,000 athletes from across India participating in 45 different sports.
- Maharashtra emerged as the undisputed champions, claiming the top spot in the medal tally and securing the prestigious Raja Bhalindra Singh Rolling Trophy for the overall championship.

Archer Deepika Kumari secured two Gold Medals and one Silver at the National Games

- Deepika Kumari, the former world No. 1 archer, demonstrated her exceptional talent and determination at the National Games by clinching two gold medals and one silver.
- The Asian Championships gold medal-winning shooter, Aishwarya Pratap Singh Tomar, also secured the top spot in the 50m rifle 3-position event.

India claimed the top titles at The FIDE Grand Swiss Chess Event

- On November 5, India celebrated a historic moment as both Vidit Gujrathi and R. Vaishali emerged victorious at the Grand Swiss tournament held at the Isle of Man, securing coveted spots in the Candidates tournament, set to take place in Toronto early next year.

The Indian Women's Hockey Team has won gold at the Asian Champions Trophy in 2023

- The Indian women's hockey team won the Women's Asian Champions Trophy 2023, claiming gold for the second time in the competition's

existence.

- Prime Minister Narendra Modi praised and celebrated the team's extraordinary path to victory.
- The final match of the event, which sealed India's win, was held on November 5, 2023, at the Marang Gomke Jaipal Singh Mundra Astro turf Hockey Stadium in Ranchi. India won the last match 4-0, with outstanding skill.

Aishwarya Pratap Singh Tomar wins the Gold Medal in the 50m Rifle 3P event

- Aishwarya Pratap Singh Tomar clinched the gold medal in the men's 50m rifle 3 positions event 2023 at the Asian Shooting Championship 2023.
- Tomar's impressive score of 463.5 in the final secured the top spot, making him the most successful Indian shooter at the event.

The city of New York has won the inaugural US National Gatka Championship

- The first US National Gatka Championship, which drew hundreds of spectators, just finished at The Sikh Centre of New York Inc.
- This championship, organised by the Gatka Federation USA, aims to govern, standardise, promote, and popularise Gatka, the Sikh Martial Art, in the United States.
- Under the auspices of the World Gatka Federation, the event saw fierce competition, with the Kansas Gatka Association finishing second and the New Jersey Gatka Association finishing third.

Sultan of Johor Cup 2023: Indian Hockey team wins Bronze Medal

- The Indian junior men's hockey team added another feather to their cap by securing the bronze medal in a heart-stopping match at the Sultan of Johor Cup 2023, in Johar, Malaysia.
- In an electrifying 3rd/4th place contest, they faced arch-rivals Pakistan and emerged victorious in a dramatic penalty shootout.
- This victory marks a significant milestone for the young Indian hockey talents and it is evidence of their relentless hard work and determination.

GEOGRAPHY & ENVIRONMENT



The Gulf of Aden

- The Gulf of Aden is an Indian Ocean extension located between the Arabian Peninsula and the African continent.
- The gulf is called after "Aden," a Yemeni port city.
- It is bordered by Somalia and the Socotra Islands (part of Yemen), Yemen to the north, the Arabian Sea to the east, and Djibouti to the west.
- The Guardafui Channel connects the gulf to the Somali Sea to the south, and the Strait of Bab el Mandeb to the Red Sea to the west.

Amaterasu: Cosmic Ray

- Scientists recently detected the most powerful cosmic ray seen in more than three decades, which has been named 'Amaterasu'.
- Amaterasu is one of the highest-energy cosmic rays ever detected.
- It has been named Amaterasu after the Japanese sun goddess.
- It has an energy exceeding 240 exa-electron volts (EeV). That is millions of times more than particles produced in the Large Hadron Collider, the most

powerful accelerator ever built, and equivalent to the energy of a golf ball travelling at 95 mph.

- It comes only second to the Oh-My-God particle, another ultra-high-energy cosmic ray that came in at 320 EeV, detected in 1991.
- Amaterasu appears to have emerged from the Local Void, an empty area of space bordering the Milky Way galaxy.

Radio Galaxy: Discovery

- Astronomers recently reported the discovery of 63 new giant radio galaxies.
- Radio Galaxies, also known as radio-luminous galaxies or radio-loud galaxies, are a particular type of active galaxy that emits more light at radio wavelengths than at visible wavelengths.
- These happen through the interaction between charged particles and strong magnetic fields related to super massive black holes at the galaxies' centre.
- Radio galaxies are driven by non-thermal emissions.
- They are much bigger than most of the other galaxies in the universe.

- The first radio galaxy to be discovered, and still the brightest, is called Cygnus A.

The Dnieper River

- Russia's military recently announced that its soldiers have foiled a Ukrainian attempt to build a bridgehead on the Dnieper River's eastern bank.
- The Dnieper River is Europe's fourth-longest river (after the Volga, Danube, and Ural).
- The river's name in Russian is Dnepr. It is Dniro in Ukrainian and Dnyapro in Belarusian.
- The Dnieper River and its tributaries drain much of Belarus and Ukraine in Eastern Europe.

E Prime Layer: Outermost Part of Earth's core

- A study by an international team of researchers revealed the formation of a new enigmatic layer – E prime layer at the outermost part of Earth's core.
- E prime layer was believed that a material exchange between the core and mantle is small.
- However, the experiments revealed that when water reaches the core-mantle boundary, it reacts with silicon in the core, forming silica.
- This latest research suggests that tectonic plates carrying surface water have transported it deep into the Earth over billions of years.
- Upon reaching the core-mantle boundary about 1,800 miles below the surface, this water initiates significant chemical changes, influencing the core's structure.
- Scientists have observed that subducted water reacts chemically with core materials under high pressure.
- This reaction leads to the formation of a hydrogen-rich, silicon-depleted layer at the outer core, resembling a film-like structure.
- Silica crystals generated by this process ascend and blend into the mantle, impacting the overall composition.
- These modifications in the liquid metallic layer could potentially result in reduced density and altered seismic characteristics, aligning with anomalies detected by seismologists.
- This discovery enhances researchers' comprehension of Earth's internal mechanisms, indicating a broader and more intricate global water cycle than previously acknowledged.

Saturn's Rings: Study

- Saturn's rings will briefly disappear from view in 2025 due to an optical illusion caused by the planet's tilt (which happens every 13 to 15 years), and the alignment of its rings with Earth's line of sight.

- The rings will gradually reappear as Saturn continues to revolve around the Sun.
- According to NASA, Saturn is expected to lose its rings completely in the next 300 million years due to the gravitational pull of the planet and its magnetic field.
- The phenomenon of "ring rain" causes ice particles from the rings to be pulled into the planet by its gravity under the influence of Saturn's magnetic field.
- Saturn is the 6th planet from the Sun and 2nd largest in the solar system
- It is Composed mostly of hydrogen and helium
- It has Spectacular and complex rings made of ice, rock, and dust
- It has 146 moons, including Enceladus and Titan
- It has the shortest day in the solar system (10.7 hours)
- One orbit around the Sun takes about 29.4 Earth years

Uttarkashi Tunnel Collapse

- Union Territories (UTs) and cities in Northeastern states find themselves in the lower ranks of the Smart Cities Mission progress.
- According to data from the Housing and Urban Affairs Ministry as of November 3, approximately 22% of total projects (1,745 out of 7,947) are still ongoing.
- These ongoing projects account for 33% of the total cost (Rs 57,028 crore out of Rs 1.70 lakh crore).
- The majority of projects, numbering 6,202, have been completed.
- Data from November 10 highlights Surat (Gujarat) as the top-performing city in terms of project completion, fund utilization, and other criteria within the Smart Cities Mission.
- It is followed by Agra (UP), Ahmedabad (Gujarat), Varanasi (UP), and Bhopal (MP) in the top five.
- Other cities in the top 10 include Tumakuru (Karnataka), Udaipur (Rajasthan), Madurai (TN), Kota (Rajasthan), and Shivamogga (Karnataka).

Phreatomagmatic Eruption

- A phreatomagmatic eruption built a new island near Japan's Ogasawara island group.
- It is a magmatic and hydrothermal eruption. It usually interacts explosively, resulting in the simultaneous ejection of steam and pyroclastic debris.
- The same mechanism produces phreatomagmatic ash in a wide range of basic and acidic compositions. It forms a blocky, homogeneous crust with a low vesicle content.
- Deposits from phreatomagmatic eruptions are expected to be more fine-grained and better

categorized than deposits from magmatic eruptions.

- This is due to increased fragmentation of phreatomagmatic eruptions.

Composite Water Management Index

- In India, the Composite Water Management Index (CWMI) has been a crucial tool, serving as a vital barometer for judging states' performance in water management.
- Recent events, however, have prompted concerns about its future, throwing doubt on its viability.
- The NITI Aayog launched the Composite Water Management Index (CWMI) to offer an annual overview of the water sector situation and water management performance of India's states and union territories (UTs).
- Niti Aayog launched the CWMI in June 2018, highlighting India's water concerns by evaluating states based on 28 categories using data from 2015-16 and 2016-17.

Geoglyph

- A geoglyph in the form of a circle said to be 3,000 years old has been recently unearthed on the outskirts of Mudichu Thalapalli in the Medchal-Malkajgiri district of Telangana.
- Geoglyph is a large design or motif (generally longer than 4 metres) produced on the ground and typically formed by clastic rocks or similarly durable elements of the landscape, such as stones, stone fragments, gravel, or earth.
- A geoglyph is created by arranging or moving objects within a landscape.
- There are two types of geoglyphs, namely positive and negative geoglyphs.
- It is formed by the arrangement and alignment of materials on the ground in a manner akin to petroglyphs (which are simply outlines created using boulders).
- It is formed by removing part of the natural ground surface to create differently coloured or textured ground in a manner akin to petroglyphs.

Klyuchevskoy Volcano: Erupted

- The Klyuchevskoy volcano erupted on Russia's Kamchatka Peninsula.
- Klyuchevskoy volcano is one of the most famous volcanoes
- It is one of the highest active volcanoes in the world, with a height of 4,750 metres.
- The volcano consists of a truncated cone with a central crater.
- It is a stratovolcano.
- It has erupted more than 50 times since 1700.

National Coal Index

- The National Coal Index (NCI) rose 3.83 points to 143.91 in September amid growing demand for coal.
- The National Coal Index is a price index that 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.

South East Asia's first Night Sky Sanctuary

- The Government of India recently announced the upcoming establishment of South East Asia's first Night Sky Sanctuary in Ladakh.
- Night Sky Sanctuary in Ladakh will be located at Hanle village in Eastern Ladakh as a part of Changthang Wildlife Sanctuary.
- It is being set up with the help of the Indian Institute of Astrophysics Bengaluru, which is affiliated to the Department of Science & Technology, Govt of India.
- Spread over 1,073 square kilometers, it is adjacent to the Indian Astronomical Observatory, the second-highest optical telescope in the world.
- It will boost Astro-tourism in India and will be one of the world's highest-located sites for optical, infrared, and gamma-ray telescopes.
- The absence of extensive urban areas preserves the natural darkness in Ladakh and contributes to minimal Light Pollution, fostering ideal conditions for Night Sky Sanctuary.

Global Biodiversity Framework Fund

- Experts said that the world's new biodiversity framework fund lacks any real financial commitment to meet conservation targets.
- Global Biodiversity Framework Fund was created to ramp up investment in nature restoration and renewal.
- It has been designed to mobilize and accelerate investment in the conservation and sustainability of wild species and ecosystems, whose health is under threat from wildfires, flooding, extreme weather, and human activity, including urban sprawl.
- The fund was established at the 7th Assembly of the Global Environment Facility in Vancouver, Canada.
- It will help countries achieve the 23 targets set

under the Kunming-Montreal Global Biodiversity Framework (KMGBF).

- The framework was adopted at the 15th Conference of the Parties (COP15) to the UN Convention on Biological Diversity last December.
- It will be managed by the Global Environment Facility (GEF) and raise funds through private, philanthropic, and government investments.

Ghol Fish: Declared as Gujrat state fish

- Gujarat officially designated the black-spotted croaker (*Protonibea diacanthus*), also known as the Ghol fish, as the state fish.
- The choice was based on several criteria, including its uniqueness, economic importance, and the necessity for protection.
- The Indo-Pacific area is home to the ghol fish.
- Its range extends from the Persian Gulf to the vast waters of the Pacific Ocean.
- The ghol fish is in high demand in China and other Asian countries.
- Ghol fish is also known as 'Sea Gold' because of its high market value.
- Its meat is sold to Europe and the Middle East, and its dried air bladder is in considerable demand, particularly in China.

Saurauia Punduana: First time recorded in Manipur

- The Saurauia Punduana plant was discovered for the first time in Tamenglong, Manipur.
- The plant Saurauia Punduana is a member of the Actinidiaceae family.
- Saurauia Punduana flowers mature from white to pink. Petals are pink and oblong to obovate, with a curled tip.
- Its fruits are round, white, and utilised in veterinary medicine.
- According to the International Union for Conservation of Nature (IUCN) Red List, these blooms are complete, bisexual, i.e., with functional male (androecium) and female (gynoecium).
- Bangladesh, Bhutan, China, India, and Myanmar make up the global distribution.
- Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura are among the Indian states that have it.

59th International Tropical Timber Council

- The 59th International Tropical Timber Council (ITTC) concluded on November 17, 2023, with major decisions.
- The International Tropical Timber Council is the

governing body of the International Tropical Timber Organisation (ITTO).

- It meets at least once a year to discuss a wide-ranging agenda aimed at promoting sustainable tropical forest management and the trade of sustainably produced tropical timber.
- Oxfam Report on Climate Equality: A Planet for the 99%
- According to a recent Oxfam analysis (Climate Equality: A Planet for the 99%), the richest 1% of the world population produced the same amount of carbon as the poorest 66%, resulting in 1.3 million heat-related fatalities.
- Climate inequality refers to the unequal distribution of climate change impacts, with vulnerable and marginalized communities bearing disproportionate burdens.
- It includes differences in exposure to climate-related risks, access to adaptation resources, and contribution to greenhouse gas emissions.
- Major findings of the Report:
- In 2019, the wealthiest 1% were responsible for 16% of global carbon emissions, equivalent to emissions from the poorest 66% of humanity
- Since the 1990s, the top 1% emitted twice the carbon budget of the poorest half
- By 2030, emissions are projected to be over 22 times the safe limit for staying below 1.5°C global warming.
- Annual global emissions by the super-rich 1% cancel out carbon savings for almost a million onshore wind turbines.
- A tax of 60% on the incomes of the super-rich 1% of earners globally would cut the carbon equivalent of more than the total emissions of the UK and raise over US\$6 trillion to fund renewable energy and a transition away from fossil fuels.

UNEP Emissions Gap Report 2023

- The United Nations Environment Programme (UNEP) has published the Emissions Gap Report 2023: Repeat after me: Temperatures have reached new highs, yet the world has failed to cut emissions (again), even though urgent climate action is required to avoid the dangerous trajectory of temperature rise.
- The report is the 14th in a series that brings together many of the world's best climate scientists to examine projected patterns in greenhouse gas emissions and give viable solutions to the Global Warming challenge.

Emissions Gap Report (EGR):

- The EGR is UNEP's spotlight report launched annually in advance of the Annual Climate negotiations.
- The EGR tracks the gap between where global

emissions are heading with current country commitments and where they ought to be to limit warming to 1.5°C.

- Key Highlights of the Report:
- Current pledges under the Paris Agreement set the world on a course for a 2.5-2.9°C temperature rise above pre-industrial levels by the end of this century.
- Paris Agreement (also known as the Conference of Parties 21 or COP 21) is a landmark environmental accord that was adopted in 2015 to address climate change and its negative impacts.
- To limit warming to 1.5-2°C, substantial emission cuts of 28-42% by 2030 are necessary.
- Greenhouse Gas Emissions (GHG) hit a new record of 57.4 Gigatonnes of Carbon Dioxide Equivalent (GtCO₂e) in 2022, with a 1.2% increase from the previous year.
- Fossil CO₂ emissions account for approximately two thirds of current GHG emissions using 100-year global warming potentials.
- Fossil CO₂ emissions grew between 0.8–1.5% in 2022 and were the main contributor to the overall increase in GHG emissions.
- In 2022, fluorinated gases emissions grew by 5.5%, followed by Methane at 1.8% and nitrous oxide (N₂O) at 0.9%.
- GHG emissions across the G20 also increased by 1.2% in 2022. However, members vary widely in their trends with increases
- in China, India, Indonesia and the United States of America, but decreases in Brazil, the European Union and the Russian Federation. Collectively, the G20 currently accounts for 76% of global emissions.²³
- In 2022, energy supply was the largest source of emissions at 20.9 GtCO₂e (36% of the total), followed by Industry (25%), followed by agriculture and LULUCF CO₂ (18%), transport (14%) and buildings (6.7%).
- If current policies and pledges continue, global warming will likely reach 3°C above pre-industrial levels by the end of the century.
- Implementing unconditional Nationally Determined Contributions (NDCs) could limit the rise to 2.9°C, while conditional NDCs might cap it at 2.5°C.
- Although countries have made Net-Zero Pledges, none of the G20 Countries are reducing emissions at a pace consistent with their targets.
- Even in the most optimistic scenario, the likelihood of limiting warming to 1.5°C is only 14%.

The Kadalundi Mudflat is shrinking

- The mudflat ecology in Kadalundi, India's

southwest coast, is quickly diminishing owing to natural and anthropogenic influences, with sand deposition covering the once-abundant inter-tidal mudflats.

- Kadalundi had roughly 8 hectares of nutrient-rich mudflats in the early 2000s, but that has since shrunk to about 1 hectare.
- The mudflats supply vital prey such as polychaetes and crustaceans, attracting a wide variety of migrating birds from Siberia, Ladakh, Mongolia, and Scotland.
- Mudflats, also known as tidal flats, are coastal wetlands that form when tides or rivers dump mud. They live in sheltered locations like bays, bays, lagoons, and estuaries.

Report on Global Energy Employment 2023

- Global energy employment increased by 3.4 million from pre-pandemic levels to 67 million in 2022. Over the same time period, clean energy sectors added 4.7 million employment globally, bringing the total to 35 million.
- After layoffs in 2020, fossil fuel jobs rebounded more slowly and remain roughly 1.3 million below pre-pandemic employment levels, at 32 million.
- In India, job growth in both the renewable energy and fossil fuel industries has remained robust compared to pre-pandemic levels in 2019.
- According to the survey, five significant areas of the energy business created the most jobs following the epidemic.
- Solar PV, wind, electric vehicles (EVs) and battery production, heat pumps, and key minerals were among these areas.

Greenhouse Gas Concentrations: United Nations issued warning

- The United Nations issued a warning highlighting the unprecedented surge in greenhouse gas concentrations in the atmosphere, setting new records in 2022.
- UN's World Meteorological Organization (WMO)'s 19th Annual Greenhouse Gas Bulletin outlines the concerning implications, foreseeing heightened temperatures, intensified extreme weather events, and elevated sea levels as a consequence.
- WMO in its 19th annual Greenhouse Gas Bulletin stated that levels of the three main greenhouse gases: carbon dioxide, methane, and nitrous oxide, all surpassed previous records, marking an escalation in their atmospheric presence.
- In 2022, carbon dioxide concentrations reached 418 parts per million, methane at 1,923 parts per

billion, and nitrous oxide at 336 parts per billion, significantly surpassing pre-industrial levels by 150%, 264%, and 124%, respectively.

- Of the three major greenhouse gases, carbon dioxide (CO₂) accounts for about 64% of the warming effect on the climate.
- Methane ranks as the second-largest contributor to climate change, causing about 16% of warming.
- Nitrous oxide contributes around 7% to the warming effect.

What is Greenwashing?

- Greenwashing is the process of presenting a false impression or misleading information about how environmentally friendly a company's products are.
- Greenwashing is the practise of making unfounded claims in order to mislead consumers into believing that a company's products are more environmentally friendly or have a higher positive environmental impact than they actually do.
- Greenwashing occurs when a firm strives to highlight the sustainable elements of a product in order to conceal its involvement in ecologically harmful practises.
- Companies can also greenwash programs by making imprecise statements that lack real evidence or scientific support.

AAINA Dashboard for Cities

- The Ministry of Housing and Urban Affairs (MoHUA) has launched the 'AAINA Dashboard for Cities' online.
- The AAINA Dashboard for Cities would be a tool for comparing similarly situated Urban Local Bodies (ULBs) and facilitating peer learning among ULBs.
- This dashboard will motivate ULBs by highlighting opportunities and areas for growth, as well as giving them with the ability to learn from and interact with frontrunners.
- It intends to build a solid database of essential performance metrics for Urban Local Bodies that can be accessed by all stakeholders and will eventually be open to the public once it is populated.

Report on the Global Tiger Recovery Programme 2.0

- The World Bank launched the Global Tiger Recovery Programme (GTRP) in 2010 as part of the Global Tiger Initiative (GTI) to rescue wild tigers.
- The goal of this effort is to reverse the rapid decrease of wild tigers across their habitat and double their population numbers by 2022.

- Along with these high-level goals, the GTRP outlined urgent theme measures at the country level to strengthen wild tiger conservation and align it with the global goal.
- The inaugural GTRP aided in drawing attention to wild tiger conservation and securing a unified commitment among TRCs.
- It was endorsed in the 2010 St Petersburg Declaration, which saw 13 tiger range countries vow to reversing the species' population decline.

Cell Broadcast Alert System (CBAS)

- The National Disaster Management Authority's (NDMA) Cell Broadcast Alert System (CBAS) and Google's early earthquake warning system did not effectively reach people during recent seismic events in Delhi and surrounding areas.
- CBAS, tested by the NDMA, failed to send alerts in North India, raising concerns about the effectiveness of these early alert systems during seismic events.
- NDMA's seismo.gov.in website crashed during the tremors, hindering access to crucial information.
- Google's Android Earthquake Early Warning system sent alerts in regions near the India-Nepal border where shaking was stronger, the tremors in Delhi did not trigger alerts due to their lower intensity
- NDMA's Cell Broadcast Alert System is a cutting-edge technology enabling the government to send urgent disaster management messages to all mobile devices within a specific geographic area.
- Developed by C-DOT under the Department of Telecommunication, it is designed to deliver critical alerts for severe weather warnings, public safety messages, evacuation notices, and other emergency information.

Report on the 2023 Production Gap

- The 2023 Production Gap Report, published by SEI (Stockholm Environment Institute), Climate Analytics, E3G, IISD, and UNEP, exposes a troubling trend in which countries plan to produce nearly 110% more fossil fuels by 2030 than is consistent with reducing global warming to 1.5°C.
- The Production Gap measures the gap between governments' planned extraction of coal, oil, and gas (fossil fuels) and the global production levels needed to satisfy climate targets, particularly those defined in the Paris Agreement (warming to 1.5°C or 2°C).
- Findings: Australia, Brazil, Canada, China, India, and the United Arab Emirates are expected to enhance world coal production by 2030 and oil and gas production until at least 2050.

ATACH stands for Alliance for Transformative Action on Climate and Health

- The World Health Organisation (WHO) has released an Operational Framework for the development of climate-resilient and low-carbon health systems.
- A framework is required to carry out the goal of the Alliance for Transformative Action on Climate and Health (ATACH).
- Climate-resilient and low-carbon health systems are designed to withstand the impacts of climate change while minimizing their carbon footprint.
- ATTACH is a WHO program launched in 2022 that is an informal voluntary network working to realize the COP26 goal of building climate-resilient and sustainable health systems.

Stage-IV of the Graded Response Action Plan

- Commission for Air Quality Management in National Capital Region(NCR) and Adjoining Areas has invoked an eight-point action plan aligning with Stage-IV of the Graded Response Action Plan (GRAP), aiming to avert any additional decline in the region's air quality.

Eight-Point Action Plan as per Stage-IV of GRAP:

- Prohibiting the entry of truck traffic into Delhi, except for those transporting essential goods and services, along with LNG/CNG/electric trucks.
- Restricting non-Delhi-registered Light Commercial Vehicles (LCVs) to enter Delhi, unless they are EVs/CNG/BS-VI diesel, except for essential service carriers.
- Banning the operation of Delhi-registered diesel Medium Goods Vehicles (MGVs) and Heavy Goods Vehicles (HGVs), except for those transporting essential items.
- Prohibiting construction and demolition (C&D) activities in linear public projects like highways, roads, flyovers, power transmission, and pipelines.
- Advising NCR State Governments and GNCTD to transition physical classes for grades VI to IX, XI to online mode.
- Directing NCR State Governments/GNCTD to consider allowing 50% capacity in public, municipal, and private offices, with the remainder working remotely.
- Empowering the Central Government to decide on work-from-home protocols for employees in Central Government offices.
- Encouraging State Governments to contemplate additional emergency measures such as the closure of educational institutions, and non-essential commercial activities, and implementing

an odd-even vehicle registration number scheme.

Climate Services Report for 2023: World Meteorological Organization

Major findings of the report:

- Climate change threatens to undo decades of health progress, with less than 25% of global health ministry's using climate information to monitor climate-related health risks.
- Despite air pollution being the fourth-largest health risk factor, only 2% of international climate finance is allocated to address it.
- However, climate finance has doubled, averaging \$1.3 trillion annually in 2021 and 2022.

New eDNA Sequencing method to assess Biodiversity

- Researchers from the Laboratory for the Conservation of Endangered Species (LaCONES) at the CSIR-Centre for Cellular and Molecular Biology (CCMB) in Hyderabad have developed a new eDNA sequencing method to assess biodiversity.
- Environmental DNA is DNA shed by all organisms into their surroundings through natural processes during their lifetime or after death.
- It originates from cellular material shed by organisms (via the skin, excrement, etc.) into aquatic or terrestrial environments that can be sampled and monitored using new molecular methods.
- The new non-invasive method can assess the total biodiversity of any ecosystem by sequencing the DNA fragments found in environmental samples such as water, soil, or air.
- This method can detect all kinds of organisms, including viruses, bacteria, archaea, and eukaryotes such as fungi, plants, insects, birds, fish and other animals.
- This method requires just a few litres of water sample without any direct capture or counting of species.
- 3rd International Convention On Sustainable Trade And Standards (ICSTS)
- The Quality Council of India (QCI), an autonomous organization of the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry hosted the 3rd International Convention on Sustainable Trade and Standards (ICSTS) in New Delhi..
- QCI and the African Organisation for Standardisation (ARSO) signed a bilateral agreement to strengthen trade relations and harmonize standards, promoting global trade landscape.

- India has forged partnerships with Brazil and Mexico and has now extended cooperation with the ARSO regarding Voluntary Sustainability Standards.
- Sustainability Standards are special rules that guarantee the products you buy do not hurt the environment and the people who make them.
- The Open Network for Digital Commerce (ONDC) initiative was highlighted as it is driving the digitalization initiative, revolutionizing e-commerce in India and making trade more accessible and efficient in the digital age.
- This initiative aligns with international standards, ensuring data confidentiality and trustworthiness.

Vitrimer: Sustainable Plastic

- University of Tokyo researchers have successfully developed "sustainable plastic," which is based on an epoxy resin vitrimer.
- Vitrimer is a relatively new class of plastic recognised for its high strength at low temperatures.
- When subjected to greater temperatures, they also have the unusual capacity to reshape themselves several times.
- It is also biodegradable to some extent.

Ecological Threat Report 2023

- A recent report by the Institute for Economics and Peace (IEP) warns that the number of people living in countries facing severe ecological threats is expected to surge to 2.8 billion by 2050, up from the current 1.8 billion.
- The report reveals that the number of countries grappling with severe ecological threats and limited societal resilience has surged from 27 to 30 in the past year.
- Sub-Saharan Africa particularly stands out as a region with significantly heightened ecological threats.
- Among the 30 countries identified as hotspots for severe ecological threats and low societal resilience, 19 are located in sub-Saharan Africa. Ethiopia, Niger, Somalia, and South Sudan are considered the most vulnerable, with Ethiopia and Niger newly emerging as hotspots.
- The report also adds Myanmar to the list of countries facing heightened ecological threats.
- In contrast, Europe and North America remain the only regions where no country currently faces a severe ecological threat, according to the report.
- The report categorizes ecological threats into four main areas: food insecurity, natural disasters, demographic pressure, and water risk.
- Currently, 42 countries are experiencing severe food insecurity, affecting nearly four billion

people, primarily in sub-Saharan Africa.

Carbon Nanoflorets

- Carbon nanoflorets made by IIT Bombay researchers can convert incident sunlight to heat with 87% efficiency.
- Carbon nanoflorets are like tiny marigold flowers made only of carbon, which are called as the material carbon nanoflorets.
- Researchers heated a special form of silicon dust called DFNS (for dendritic fibrous nanosilica) in a furnace.
- Once heated, she introduced acetylene gas into the chamber.
- The white powder turned black, a sign that carbon had been deposited on the DFNS.
- Then they collected the black powder and treated it with a strong chemical that dissolved the DFNS away, leaving carbon particles behind.
- The structure of the silicon particles – 50-1,200 nanometers in size—resembled spikes arranged around a sphere.
- They reported that these nanoflorets could absorb sunlight at many frequencies and convert it to heat with unprecedented efficiency.
- The nanoflorets also didn't easily dissipate the heat generated into the environment, making the material a good candidate for heat.
- The nanoflorets converted the light energy they absorbed into thermal energy—a process called solar-thermal conversion—with a remarkable efficiency of 87%.
- The carbon nanoflorets' high efficiency comes from three properties.
- The nanoflorets absorb three frequencies in sunlight – infrared, visible light, and ultraviolet, while other common materials absorb only visible and ultraviolet light.

Candolleomyces albosquamosus: A new Mushroom species

- Candolleomyces albosquamosus is a new species in the genus Candolleomyces, a small genus with only 35 species known globally.
- Its pileus or cap has white fuzzy scale-like characteristics.
- It reaches a height of roughly 58 mm.
- The 'cap,' or pileus, of a mature Candolleomyces albosquamosus is bell-shaped and is 12 mm to 38.5 mm in diameter.
- With age, the honey-yellow pileus develops brownish-gray or brownish-beige.
- The mushroom's 'tip' (the stem or stalk) is white and cylindrical in shape.
- Candolleomyces albosquamosus lives in the

natural forest on dead logs or bamboo culms.

SCIENCE & TECHNOLOGY



Open AI's Project Q*

- Open AI's Project Q*, an AI breakthrough, has sparked controversy and concerns about its potential threat to humanity.
- Project Q* is an AI breakthrough, reportedly capable of solving complex problems and demonstrating advanced reasoning similar to humans.
- The project has raised concerns about its potential threat to humanity, with fears stemming from its deep learning capabilities, potential to accelerate scientific progress and the possibility of unintended consequences and misuse.
- Artificial General Intelligence (AGI) refers to artificial intelligence with human-like cognitive abilities, enabling it to understand, learn, and apply knowledge across various domains, similar to human intelligence. Q* is seen as a leap towards Artificial General Intelligence (AGI).

AstroSat: India's First Multi-Wavelength Space Telescope

- India's first multi-wavelength space telescope, AstroSat, has successfully detected its 600th Gamma-ray Burst (GRB), an event named GRB 231122B.
- AstroSat is India's first dedicated multi-wavelength space observatory aimed at studying celestial sources in X-ray, optical, and UV spectral bands simultaneously.
- AstroSat, with a lift-off mass of 1515 kg, was launched by the Indian launch vehicle PSLV from Satish Dhawan Space Centre, Sriharikota, on September 28, 2015, into a 650 km orbit inclined at an angle of 6 degrees to the equator.
- The spacecraft control centre at Mission Operations Complex (MOX) of ISRO Telemetry, Tracking and Command Network (ISTRAC), Bengaluru, manages the satellite during its entire mission life.
- The minimum useful life of the AstroSat mission is around 5 years.

Sagittarius C: James Webb Space Telescope Captured Image

- The James Webb Space Telescope (JWST) captured an image of the dense center of the Milky Way galaxy with clarity never seen before.
- Sagittarius C (Sgr C) is the star-forming region known to be situated approximately 300 light-

years from the Milky Way's central supermassive black hole, Sagittarius A*.

- It is revealing a bustling cluster of protostars within an infrared-dark cloud.

Green Leaf Volatile: New Research Plant Plant Communication

- Researchers from Japan have conducted groundbreaking research on plant-plant communication through volatile organic compounds (VOCs) called Green Leaf Volatile (GLV).
- Using real-time fluorescence imaging, they visualized how plants take up VOCs released by damaged neighbors, leading to calcium-dependent defence responses against potential threats.
- The research also revealed that guard cells, responsible for stomatal function, play a crucial role in VOC perception.
- GLVs are common constituents of herbivore-infested plant volatiles. GLVs play an important role in plant defense.
- This discovery enhances understanding of the intricate communication network among plants for timely defense responses.
- The findings showcase nature's remarkable adaptations and have broader implications beyond plant science.

2D Protein Monolayer Unravels Amyloidosis

- Researchers have achieved a significant breakthrough in disease study through the creation of a two-dimensional (2D) protein monolayer using lysozyme molecules

Highlights of the Research:

- Scientists assembled lysozyme molecules into a 2D monolayer at the interface of a pure water subphase.
- These meticulously arranged layers of lysozyme, positioned at different interfaces, provide an exceptional model for delving into the complexities of Amyloidosis.
- Employing the sophisticated Langmuir-Blodgett (LB) technique was crucial in forming this specialized two-dimensional protein layer.
- The Langmuir-Blodgett technique is a process used to create monolayers of molecules, including proteins, at air-water and air-solid interfaces.
- The changes observed in the structure and shape

of lysozyme molecules under different pH conditions remarkably mirror the abnormalities seen in Amyloidosis.

- This groundbreaking research not only paves the way for a more profound comprehension of Amyloidosis but also establishes a versatile platform for probing disease mechanisms.
- Furthermore, it presents exciting possibilities for exploring nanotechnology applications within the realm of protein science.

Deepfakes: Regulations

- The Union Information Technology Minister recently said the government will form regulations to control the spread of deepfakes on social media platforms, terming them a “new threat to democracy.”
- Deepfakes are a compilation of artificial images and audio put together with machine-learning algorithms to spread misinformation and replace a real person’s appearance, voice, or both with similar artificial likenesses or voices.
- The term “deepfake” combines the deep learning concept with something fake.
- It can create people who do not exist, and it can fake real people saying and doing things they did not say or do.
- They are created by machine learning models, which use neural networks to manipulate images and videos.

AT 2023prq: Nova

- Astronomers have recently performed photometric and spectroscopic observations of a recently discovered nova, known as AT 2023prq.
- A nova is any of a class of exploding stars whose luminosity temporarily increases from several thousand to as much as 100,000 times its normal level.
- A nova reaches maximum luminosity within hours after its outburst and may shine intensely for several days or occasionally for a few weeks, after which it slowly returns to its former level of luminosity.

Nitrogen-9 nucleus: Discovery

- Scientists discovered hints of the new isotope, called nitrogen-9, by smashing beams of oxygen isotopes into beryllium atoms in the U.S. National Superconducting Cyclotron Laboratory.
- Nitrogen-9 nucleus is characterised by seven protons and two neutrons – which is an unusually high proton-to-neutron ratio.
- This disparity has a critical effect on the isotope’s stability, influencing its decay processes as well as

overall behaviour.

- For one, the high proton content places nitrogen-9 atoms beyond the conventional stability thresholds.
- Most nitrogen comes as the isotope nitrogen-14, with seven protons and seven neutrons. But physicists say they have glimpsed a far more elusive variant with just two neutrons.
- Isotopes are atoms of a given element that vary only in the number of neutrons. This difference sets apart one isotope from another.
- Many isotopes are also unstable, especially those whose atoms have too few neutrons for the number of protons.
- Unstable isotopes are short-lived, and often decay by releasing some energy to achieve a more stable configuration.

Ixchiq Vaccine for Chikungunya

- This novel vaccine, named Ixchiq and developed by European vaccine manufacturer Valneva, marks a significant leap in combating the chikungunya virus (CHIKV).
- Ixchiq Vaccine is administered as a single dose via injection into the muscle.
- It contains a live, weakened version of the chikungunya virus, potentially causing symptoms akin to the disease in vaccine recipients.
- The vaccine has been approved for administration in people who are 18 years or older, and are at increased risk of exposure to the virus.

Leonid Meteor Shower

- Many skywatchers in India and around the globe are poised for a cosmic treat—the Leonid Meteor Shower, which has already been underway since November 6, is set to reach its peak in the pre-dawn hours of November 17–18, 2023.
- Leonid meteor shower is brought about by the dust and debris abandoned by the comet Tempel-Tuttle.
- It is commonly peaking in mid-November.
- The shower is called after the Leo constellation, from which the meteors appear to radiate.
- This Tempel-Tuttle comet circles the sun at regular intervals of 33 years.

Avangard: Hypersonic Glide Vehicle

- Russia’s rocket forces loaded an intercontinental ballistic missile equipped with the nuclear-capable “Avangard” hypersonic glide vehicle into a launch silo in southern Russia recently.
- The Avangard is a nuclear-capable, hypersonic boost-glide vehicle (HGV) developed by the Russian Federation.

- It was developed as part of the top-secret Project 4202 and given the codename Yu-71.
- It was one of six “next generation” weapons described by Russian President Vladimir Putin during a speech in March 2018.
- It has a range of over 6,000 km, weighs approximately 2,000 kg, and can carry a nuclear or conventional payload.
- It is carried on an intercontinental ballistic missile (ICBM).

World's First Gene Therapy Treatment for Sickle Cell Disease

- The United Kingdom's drug regulator recently approved the world's first gene therapy treatment for sickle cell disease and thalassemia.
- Sickle Cell Disease is an inherited blood disorder.
- It is marked by flawed hemoglobin.
- Haemoglobin is the molecule in red blood cells (RBCs) that carries oxygen to the tissues of the body.
- People with this disease have atypical hemoglobin molecules called hemoglobin S, which can distort RBCs into a sickle, or crescent, shape.
- Sickle cell disease interferes with the delivery of oxygen to the tissues.

National Health Claim Exchange

- The National Health Authority (NHA) and the Insurance Regulatory and Development Authority of India (IRDAI) have joined hands to operationalize the National Health Claim Exchange (NHCX).
- National Health Claim Exchange (NHCX) is a digital health claims platform developed by the National Health Authority.
- It will serve as a gateway for exchanging claims-related information among various stakeholders in the healthcare and health insurance ecosystem.
- It is designed to be interoperable, machine-readable, auditable and verifiable, as well as help ensure the information exchanged is accurate and trustworthy.

Bioeconomy Report 2022

- As mentioned in the 'Bioeconomy Report 2022' by the Department of Biotechnology (DBT), India wants to enhance the Bioeconomy's contribution to GDP (Gross Domestic Product) from 2.6% to 5% by 2030.
- Biotechnology funding in India is flat, with barely 0.0001% of GDP allocated.
- Despite a brief uptick during Covid-19, funding levels have yet to return to pre-pandemic levels.
- The DBT's 'Guidelines for Genetically Engineered

(GE) Insects', launched in April 2023, provide procedural roadmaps for people interested in generating GE insects but encountering difficulties.

Helicobacter pylori Disease: Recent Study

- Recently, the National Institute of Cholera and Enteric Diseases made rapid diagnosis of drug-resistant 'Helicobacter pylori' possible.
- A team of researchers from the National Institute of Cholera and Enteric Diseases (ICMR-NICED) in Kolkata developed a two-step PCR-based assay of a small region of the Helicobacter pylori (H. pylori) bacteria that can help detect H. pylori infection as well as identify clarithromycin-resistant bacteria and those that are drug-sensitive in six-seven hours.

Radiative Cooling Paint

- Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR) researchers have created a radiative cooling paint that is specifically designed to cool structures such as buildings, pavers, and tiles under hot weather conditions.
- Radiative Cooling Paint is based on a new MgO-PVDF polymer nanocomposite.
- They used an ultra-white and ultra-emissive magnesium oxide (MgO)-polyvinylidene fluoride (PVDF) nano-composite made from earth-abundant, low-cost, non-toxic, and non-harmful ingredients.
- Due to MgO bond vibrations and additional stretching/bonding vibrations from the polymer, the optimised MgO-PVDF with dielectric nanoparticles resulted in a significant solar reflectance of 96.3% and a record high heat emission of 98.5%.
- Using a simple solution-processed approach, the researchers created polymer nanocomposite paint.

Cloud Seeding: Study

- ITM Pune demonstrated that cloud seeding can produce rainfall.
- A cloud seeding experiment was carried out in Solapur city, which falls on the leeward side of the Western Ghats.
- Cloud seeding is a kind of weather modification technology to create artificial rainfall.
- The goal of this work is to change the amount of precipitation that falls from the sky or to alter the type that would reach the ground.
- It is a way of changing the amount or type of precipitation that falls from clouds, by dispersing substances into the air that serve as cloud

condensation.

- Drones are charged into the clouds and cause an electric shock due to which they clump together and cause rainfall.
- Silver iodide, dry ice, and potassium iodide are the most common items used to initiate the cloud-seeding process.

SIM-Swap Scam

- A Delhi-based advocate recently became the latest victim of the SIM-Swap Scam after she received three missed calls from unknown numbers and lost money from her bank account.
- All banking applications are linked to phone numbers, which help in generating OTPs (to authenticate transactions) or receiving important bank-related messages.
- In the SIM swap scam, fraudsters first take personal details such as phone numbers, bank account details, and addresses with the help of phishing or vishing.

- After receiving the personal information, fraudsters visit the mobile operator's retail outlet, posing as the victim with forged ID proof, and report a fake theft of the victim's SIM card and/or mobile phone.
- By doing this, they attain a duplicate SIM.
- Notably, scamsters can get a duplicate SIM even when the original is working, as they reported a theft of the original SIM card.
- Unlike other scams, where scamsters trick people into giving OTPs and private information on a phone call, the SIM swap scam doesn't require direct communication with the victims.
- However, fraudsters do give missed calls to their victims so that the latter leave their phones and ignore the lost network connectivity.
- When the SIM is swapped, the accused gains control of the entire SIM. All calls and messages go through their SIM only.
- Once in control of the SIM card, they can obtain passwords and OTPs that allow them to access their targets' bank accounts.



OBITUARIES

Henry Kissinger, the Nobel Peace Prize recipient, has died

- Henry Kissinger, a towering figure in American foreign policy, died at the age of 100 on November 29, 2023.
- He was Secretary of State under Presidents Richard Nixon and Gerald Ford, and he was instrumental in formulating US foreign policy during the 1970s.

India's first woman Supreme Court judge Justice Fathima Beevi passes away

- Justice Fathima Beevi, the first female Supreme Court judge, passed away at the age of 96.
- Her remarkable journey, spanning the corridors of justice and governance, leaves an indelible mark on the nation's legal landscape.

Former RBI Governor S. Venkitaramanan passed away at 92

- Former Governor of the Reserve Bank of India (RBI), S. Venkitaramanan, breathed his last at the age of 92 on November 18, succumbing to age-related issues at a private hospital in Chennai.
- Assuming the role of RBI Governor in December 1990, Venkitaramanan faced the daunting task of navigating a severe balance of payments crisis.

- His tenure coincided with rapid changes in the Central government, requiring him to exhibit determination and courage in the face of economic challenges.

Renowned Art Historian BN Goswamy passed away at 90

- Renowned art historian and prolific writer, B. N. Goswamy, breathed his last at the Post Graduate Institute of Medical Education and Research (PGIMER) in Chandigarh on Friday at the age of 90.
- His passing marks the end of an era in the world of art scholarship and leaves behind a legacy that has enriched the understanding of Pahari paintings.

Sahara Group founder Subrata Roy passes away at 75 after prolonged illness

- Sahara Group's visionary founder and chairman, Subrata Roy, breathed his last at the age of 75 in a Mumbai hospital.
- The news comes after a prolonged battle with illness, as stated in an official company announcement.

Lala Kedarnath Aggarwal, Founder

and Chairman of Bikanervala, passes away at 86

- Lala Kedarnath Aggarwal, the visionary entrepreneur and founder of the renowned sweets and snacks brand Bikanervala, breathed his last at the age of 86.
- His journey from a humble street vendor to the chairman of a successful business empire is a testament to his indomitable spirit and dedication.

Freedom Fighter and Communist Leader N Sankaraiah passed away at the age of 102

- N Sankaraiah, one of the oldest communist leaders in the country, passed away in a Chennai hospital after a brief illness on Wednesday morning.
- At the age of 102, he had dedicated his life to the principles of communism and the struggle for a just society.
- Leaders of the Communist Party of India (Marxist) confirmed his demise, marking the end of an era.

A.S. Byatt, a well-known novelist, died at the age of 87

- A.S. Byatt, the acclaimed British novelist Antonia Susan Byatt, died at the age of 87.
- Byatt's writing career spanned nearly six decades, and he made an unmistakable influence on the literary world.

- Her significant work, "Possession: A Romance," won her the Booker Prize in 1990. Byatt, the novelist Margaret Drabble's sister, drew parallels with the Brontës, establishing herself as one of the most influential writers and critics of her generation.

P. Valsala, a Malayalam writer, died at the age of 85

- P. Valsala, an award-winning Malayalam writer, died in Kozhikode at the age of 85. Ms. Valsala, a trailblazer among Malayalam women writers, leaves behind a rich literary legacy replete with honours and critical acclaim.
- As P. Valsala's voyage comes to an end, the literary community mourns the loss of a stalwart.
- Her enormous impact on Malayalam writing, defined by honours, sensitivity, and a broad body of work, ensures that her legacy will continue to inspire and resonate with readers for centuries to come.

Gieve Patel, an Indian poet, has died at the age of 83

- Gieve Patel, a prominent personality in the arts and literature, died at the Palliative Care and Training Centre in Pune.
- Gieve Patel, who had been battling cancer, was admitted to the Pune centre a few weeks ago. He leaves a unique legacy as a playwright, poet, painter, and surgeon.



BOOKS & AUTHORS

Sharmishtha Mukherjee's book titled 'Pranab, My Father: A Daughter Remembers'

- Sharmishtha Mukherjee wrote the book "Pranab, My Father: A Daughter Remembers." Rupa Publications is publishing the book.
- The book is also a reflection of Pranab Mukherjee and Sharmishtha's father-daughter relationship.
- This, and other tidbits of Mukherjee's life, from an unassuming village in West Bengal's Birbhum district to a roller-coaster career that followed, are the highlights of his daughter, classical dancer Sharmishtha Mukherjee's, soon-to-be-released biography.

ISRO Chief Withdraws His Autobiography 'Nilavu Kudicha Simhangaal' from Publication

- S Somanath, Chairman of the Indian Space Research Organisation (ISRO), has opted to postpone the publishing of his upcoming autobiography, titled 'Nilavu Kudicha Simhangaal' (roughly translates to 'Lions that Drank the Moonlight').
- The decision follows a backlash over reported negative remarks made by Somanath about his predecessor, K Sivan. Because of these words, the book gained attention, but Somanath stated that his intention was not to criticize anyone.

Twinkle Khanna Launched her New Book 'Welcome to Paradise'

- On November 29, 2023, the renowned actress and author Twinkle Khanna celebrated the launch of her fourth book, "Welcome to Paradise," at Taj Lands' End, Mumbai.
- This event marked her return to the literacy scene after a hiatus of five years. The book, a collection



of short stories, delves into the complex lives of women navigating love, marriage and loneliness, all presented with Twinkle's signature wit and honor.

Thread by Thread is a biography of Shambhu Kumar Kasliwal

- Thread by Thread, a book about the life of Shambhu Kumar or 'the' S Kumar, was released by Kapil Dev at The Palace Halls, NSCI in Mumbai. In the 1980s and 2000s, Kapil Dev served as a brand ambassador for S.Kumars' television and print ads.

- Sathya Saran, a well-known journalist and author, wrote the book, which was published by Penguin Random House.

Prasoon Joshi Announces the Publication of Dr. Hema Joshi's Book 'Do Palkon Ki Chhavn Main'

- Prasoon Joshi, acclaimed poet, lyricist, and Chief of the Central Board of Film Certification (CBFC), just released 'Do Palkon Ki Chhavn Main,' a book written by Dr. Hema Joshi.
- The fictionalized story intertwines the author's literary prowess with her strong attachment to two Indian cities: Almora, her birthplace, and Prayagraj, where she spent her later years.



AWARDS

Abdullahi Mire has won the UNHCR Nansen Refugee Award for 2023

- Abdullahi Mire, a Somali refugee, has been selected as the 2023 UNHCR Nansen Refugee Award Global Laureate for his efforts advocating for displaced children's right to education.
- Mire, who grew up in Kenya's Dadaab refugee camps, has distributed over 100,000 books to the country's displaced children and teenagers.
- On December 13, 2023, he will receive the prize at a ceremony in Geneva, Switzerland.

Vijayawada Railway Station Receives IGBC's 'Platinum' Rating

- The Indian Green Building Council (IGBC) has granted the Vijayawada Railway Station the prestigious platinum rating for its commitment to environmental sustainability and eco-friendly practises.
- This is the highest honour that the IGBC, India's top certification authority that promotes environmentally responsible construction, can confer.

The Ministry of Power has been awarded the Medal of Excellence at the IITF 2023

- The Government of India's Ministry of Power has received the Special Appreciation Medal for Excellence in Display at the India International Trade Fair (IITF) 2023.
- The renowned award was given to the Ministry for its excellent contribution to the 42nd edition of the IITF, which will be hosted from November 14 to 27, 2023, at Pragati Maidan in New Delhi.

Ishwak Singh won Best Actor Award at Stars Asian International Film Festival

- Ishwak Singh won the Best Actor award at the Stars Asian International Film Festival (SAIFF) for his performance in the film 'Berlin,' serving as a testament to the universal appeal of his work and highlighting not only his exceptional talent but also his dedication to his craft.

Uttar Pradesh is named the Best State for Inland Fisheries

- Uttar Pradesh has won a prestigious 'Best State' award for inland fisheries (plain areas) under the leadership of Yogi Adityanath.
- On November 21 and 22, the state will win this coveted award at the two-day Global Fisheries Conference 2023 in Delhi.

Indira Gandhi Peace Prize for 2022 presented to COVID-19 Warriors

- The prestigious Indira Gandhi Prize for Peace, Disarmament and Development for the year 2022 was jointly awarded to the Indian Medical Association (IMA) and Trained Nurses Association of India.
- The award ceremony took place on November 19, where former Vice-President Hamid Ansari presented the honor to Dr. Sharad Kumar Agarwal, President of the IMA and Professor (Dr.) Roy K. George, President of the Trained Nurses Association of India.



Suresh Wadkar has been named to the Maharashtra 'Lata Mangeshkar Award 2023'

- Suresh Ishwar Wadkar, a renowned playback singer and National Award winner has been named the 2023 recipient of the coveted 'Gansamragini Lata Mangeshkar Award' by the Maharashtra government.
- Sudhir Mungantiwar, Minister of Cultural Affairs, made the announcement, honoring Wadkar's extraordinary contribution to the world of music.

Salman Rushdie receives First 'Lifetime Disturbing the Peace Award'

- The Vaclav Havel Centre presented the inaugural 'Lifetime Disturbing the Peace Award' to world-renowned novelist Salman Rushdie, who is known for innovative works such as "The Satanic Verses."
- Simultaneously, Egyptian activist Alaa Abdel-Fattah received the 'Disturbing the Peace Award for a Courageous Writer at Risk' on November 14.

Eminent writer T. Padmanabhan receives prestigious Kerala Jyothi Award

- Kerala government has selected renowned writer T. Padmanabhan as the recipient of the prestigious Kerala Jyothi award.
- This highest civilian honor in the state was awarded to Padmanabhan in recognition of his exceptional contributions to Malayalam literature.

Deenanath Rajput, a social worker from Bastar, has won the Rohini Nayyar Prize

- Deenanath Rajput, an engineer-turned-social worker, received the Second Rohini Nayyar Prize for his outstanding contribution to rural development.
- The coveted award, named after the late economist-administrator Dr. Rohini Nayyar, comes with a trophy, a certificate, and a monetary prize of Rs 10 lakh.

Nandini Das, an Indian-born author, has won the British Academy Book Prize for 2023

- Nandini Das, an India-born author, has won the British Academy Book Prize for Global Cultural Understanding, a major international non-fiction prize, for her debut book, 'Courting India:

England, Mughal India, and the Origins of Empire.'

- This outstanding work, heralded as the "true origin story of Britain and India told through England's first diplomatic mission to the Mughal courts," took first place this year at the British Academy in London.

RBI receives the 'Changemaker of the Year' Award

- The Reserve Bank of India (RBI) received the 'Changemaker of the Year' award recently. On behalf of the RBI, Governor Shaktikanta Das acknowledged it.
- The award was given as part of the Hindu Businessline Changemaker Awards 2023, which were presented on November 3 at the ITC Maurya in New Delhi.

Apollinaris D'Souza is the recipient of the 19th 'Kalakar Puraskar Award

- Apollinaris D'Souza, a notable Konkani singer, songwriter, and composer, received the 19th edition of the coveted 'Kalakar Puraskar,' which was organised by the Carvalho Household of Kundapura in collaboration with Mandd Sobhann, Mangaluru.
- The award ceremony took place on November 5, 2023, at Kalaagann in Mangaluru, during a public event.

She-Guard, a Pakistan-based startup, has won the top climate innovation competition

- In a historic feat, Pakistan-based cleantech firm She-Guard won the 'ClimateLaunchpad Asia-Pacific' finals with their unique biodegradable and plastic-free sanitary solution.
- The objective of the firm is to convert banana crop waste into affordable, eco-friendly sanitary napkins, solving Pakistan's interconnected concerns of climate change, public health, and solid waste management.

Sheynnis Palcios of Nicaragua has been named the 72nd Miss Universe 2023.

- Sheynnis Palcios, a 23-year-old TV anchor and model from Nicaragua, has reached a big milestone by being named Miss Universe 2023.
- On November 18, 2023, the 72nd Miss Universe pageant finished with a spectacular celebration at the Jose Adolfo Pineda Arena in San Salvador, El

Salvador.

Madhuri Dixit Receives Award at 54th IFFI

- Madhuri Dixit, the legendary actress, received the 'Special Recognition for Contribution to Bharatiya

Cinema' award at the 54th International Film Festival of India (IFFI) in Panaji, Goa.

- Union Minister for Information and Broadcasting and Youth Affairs and Sports, Shri Anurag Singh Thakur, made the announcement alongside MoS Information and Broadcasting, Dr. L. Murugan, and Goa Chief Minister Pramod Sawant.



APPOINTMENTS

Puneet Vidyarthi Appointed President of RMAI for the 2023-2025 Term

- During its 18th Annual General Meeting (AGM), the Rural Marketing Association of India (RMAI), a prominent organization representing rural marketers, announced key leadership changes.
- Puneet Vidyarthi has been named President for the year 2023-2025, succeeding Biswabaran Chakrabarti, who had held the position since 2019.

FICCI President Anish Shah to Take Office

- The Federation of Indian Chambers of Commerce and Industry (FICCI), the country's oldest and largest industry association, is about to welcome Anish Shah as its President-Elect.
- This momentous announcement was made at a recent FICCI National Executive Committee Meeting, emphasizing Shah's pivotal role in determining the apex Chamber's future.
- Anish Shah is the Group CEO of Mahindra Group and the Managing Director of M&M, the Group's parent business. He is now the Senior Vice-President of FICCI.

Colin Jackson Named International Ambassador for Tata Steel Kolkata in 2023

- Colin Jackson, the former world record holder in the 110m hurdles, has been named the International Event Ambassador for the next Tata Steel Kolkata 25K event, which will take place on Sunday, December 17th, 2023.
- This addition increases the status and excitement of an already prestigious event. Colin Jackson, an iconic figure in the world of athletics, brings a wealth of experience and inspiration to the event.

Vinay Tonse is named MD of SBI by the government. For two years

- On Monday, the Indian government made an

important announcement, naming Vinay M. Tonse as the Managing Director of the State Bank of India (SBI) until November 30, 2025.

- This appointment replaces the position caused by Swaminathan Janakiraman's appointment as Deputy Governor of the Reserve Bank in June.

Microsoft Appoints Aparna Gupta as Global Delivery Centre Leader

- Microsoft recently announced the appointment of Aparna Gupta as the new Global Delivery Centre (GDC) head in a deliberate drive to bolster its leadership team. Ms. Gupta will lead customer innovation and delivery excellence in this role, expanding Microsoft's commitment to bringing cutting-edge solutions to its global clientele.

Girish Chandra Murmu, India's CAG, has been named vice-chair of the UN panel of external auditors

- Girish Chandra Murmu, India's Comptroller and Auditor General (CAG), has been elected vice-chair of the United Nations Panel of External Auditors, a significant milestone for the country.
- This accreditation not only demonstrates India's commitment to maintaining the best external audit standards but also its active participation in creating the global audit landscape.

Col Sunita BS is the first female commander of the Armed Forces Transfusion Centre

- On November 21, 2023, Colonel Sunita BS, an officer in the Army Medical Corps, made history by becoming the first woman to serve as Commanding Officer of the Armed Forces Transfusion Centre (AFTC) in Delhi Cantt. Col Sunita's career has been defined by tremendous accomplishments and a dedication to delivering first-rate medical support, culminating in her revolutionary leadership role at AFTC.

Mizoram Governor Appoints Air Force Officer as India's First Woman Aide De Camp

- In a historic move, Governor Dr Hari Babu Kambhampati has appointed Squadron Leader Manisha Padhi, a distinguished officer from the 2015 batch of the Indian Air Force, as India's first Woman Aide-De-Camp (ADC) from the Indian Armed Forces.
- This groundbreaking decision not only marks a significant milestone but also serves as a powerful testament to the ability of women to break gender norms and excel in diverse fields.

RBI Approves New Directors of Jio Financial Services

- The Reserve Bank of India (RBI) has given its approval for the appointment of key individuals as directors of Jio Financial Services, marking a significant development in the leadership structure of the company.
- The central bank's approval, granted on November 15, underscores the strategic importance of these appointments in shaping the future trajectory of Jio Financial Services.

Mika, the AI-Powered Robot, Takes the Helm as CEO of Dictador

- In a groundbreaking move, Dictador, a Polish beverage company, appointed Mika, an AI-powered humanoid robot, as its experimental CEO in August of the previous year.
- This decision highlights a growing trend in integrating artificial intelligence into leadership roles.

NPCI appoints Pankaj Tripathi as 'UPI Safety Ambassador'

- In an important step towards increasing awareness and security on digital payment platforms, the National Payments Corporation of India (NPCI) has named Bollywood actor Pankaj Tripathi as the "UPI Safety Ambassador."
- This strategic collaboration attempts to address growing concerns regarding the security of digital payment systems, including the United Payments Interface (UPI).

Heeralal Samariya Appointed as the New Chief Information Commissioner

- In an official announcement dated November 6, 2023, Shri Heeralal Samariya was appointed as the Chief Information Commissioner of the Central Information Commission. He formally assumed his new role on the same day.

Former PM David Cameron Appointed as The UK Foreign Secretary

- Rishi Sunak, upon his return from the Deepavali celebrations in his hometown of Southampton, U.K., made waves in the political landscape by resurrecting the political career of former U.K. Prime Minister David Cameron, appointing him to the role of Foreign Secretary.



IMPORTANT DAYS

1st November- Rajyotsava Day (Karnataka Formation Day)

- Rajyotsava Day which is also known as Karnataka Rajyotsava or Kannada Rajyotsava or Kannada Day or Karnataka Day is celebrated on 1st November every year.
- On 1st November 1956, all Kannada language-speaking regions of South India were merged to develop the State of Karnataka.

2nd November- Parumala Perunnal

- Kerala's glorious festival is one of the most well-known celebrations in India's evergreen state. Parumala Perunnal Kerala is a festival that brings

Kerala to a halt.

- Parumala Perunnal Kerala is celebrated in an accessible location, making it easier for tourists to visit and find grace on the occasion.

5th November- World Tsunami Awareness Day

- World Tsunami Awareness Day is observed on November 5th to highlight the dangers of tsunamis and to emphasize the importance of early warning systems in minimizing the damage caused by natural disasters.
- Many organizations provide traditional knowledge about tsunamis to make people aware of the situation.

6th November- International Day for Preventing the Exploitation of the Environment in War and Armed Conflict

- The United Nations General Assembly declared on November 5, 2001, that the 6th of November would be observed as the 'International Day for Preventing the Exploitation of the Environment in War and Armed Conflict.

7th November- National Cancer Awareness Day

- On November 7, National Cancer Awareness Day is observed to raise awareness about cancer and to make it a global health priority.
- Former Union Health Minister Dr. Harsh Vardhan established National Cancer Awareness Day in 2014 to raise public awareness of the situation.

8th November- World Radiography Day

- Radiographers worldwide can use the day and the days around the date to promote radiography as a career, as a vital contribution to modern healthcare, and as a chance to increase public awareness of diagnostic imaging and radiation therapy.

8th November- Guru Nanak Dev's Birth Anniversary

- Every year, Guru Nanak Jayanti commemorates the birth anniversary of the Sikh founder, Guru Nanak Dev.
- This year marks Guru Nanak's 552nd birth anniversary, also known as Prakash Utsav or Guru Purab, and is an important festival for the Sikh community.

9th November- National Legal Services Day

- In India, the 9th of November is observed as National Legal Services Day to raise awareness among people in areas where legal literacy is lacking.
- The Legal Services Authorities Act was enacted in 1995, and people have been aware of the lack of legal literacy since then.

10th November- World Science Day for Peace and Development

- World Science Day for Peace and Development is an international day that recognizes the

importance of science in society and is observed on November 10 each year.

- It also emphasizes the importance of involving the general public in discussions about emerging scientific issues.

12th November- World Pneumonia Day

- World Pneumonia Day is observed on November 12th to raise awareness about Pneumonia and its prevention.
- This is considered the world's leading infectious disease, with children under the age of five being the most affected.

14th November- Children's Day

- Every year on November 14th, India celebrates Children's Day.
- This is also known as Bal Divas.
- On this day, people are made aware of children's rights, care, and education.
- This day commemorates the birth anniversary of India's first Prime Minister, Jawaharlal Nehru.
- The purpose of the day is to recognize Kalam's contributions to education and students.

14th November- World Diabetes Day

- The 14th of November is designated as World Diabetes Day.
- The primary goal of this day is to raise public awareness about the impact of diabetes disease, its prevention, and diabetes education.

15th November- Bhai Dooj

- Bhai Dooj is a popular Hindu festival that celebrates the special bond between siblings.
- The day falls on the second day of the bright fortnight of Hindi month Kartika. It also symbolizes the strength of families, mutual love and respect.

15th November- Birsa Munda Jayanti

- Birsa Munda, a religious and tribal freedom fighter, was born in Ulihatu, Jharkhand's district of Khunti, on November 15, 1875.
- The region was a part of British India's Bihar. Birsa Munda was a significant figure in the Indian freedom movement.

16th November- National Press Day

- Every year on November 16th, National Press Day is observed to recognize and honor the Press Council of India (PCI).
- The day celebrates the existence of a free and

accountable press in the nation.

17th November- National Epilepsy Day

- National Epilepsy Awareness Day is November 17th.
- In this regard, the primary goal is to raise public awareness of epilepsy disease, its symptoms, and its prevention. Epilepsy is thought to be a chronic brain disorder marked by recurrent seizures or "fits."
- This has been observed to affect people of all ages, and each person has their own set of concerns and problems to deal with.

24th November- Lachit Diwas

- Lachit Diwas is celebrated as the birthday of Ahom General Lachit Borphukan. The day honors the victory of the Assamese Army at the Battle of Saraighat.

25th November-International Day for the Elimination of Violence against Women

- Every year on November 25th, the International Day for the Elimination of Violence Against Women is observed.
- This day was established by the United Nations General Assembly in 1993.
- Violence against women is defined as any act of gender-based violence that causes physical, sexual, or psychological harm or suffering to women, including threats.

26 November- National Milk Day

- It is observed on 26 November to commemorate the birth anniversary of Dr. Verghese Kurien, the father of India's White Revolution.

26th November- Constitution Day of India

- Every year on November 26th, India observes Constitution Day, also known as Law Day or Samwidhan Divas.
- On November 26, 1949, India's Constituent Assembly adopted the Indian Constitution. This took effect on January 26, 1950.

27th November- Guru Purab

- Guru Nanak Dev Ji Gurburab, also known as Guru Nanak Dev Ji Prakash Utsav, celebrates the birth of the first Sikh guru, Guru Nanak.
- One of the most celebrated and important Sikh gurus and the founder of Sikhism.

29th November- International Day of Solidarity with Palestinian People

- Every year on November 29th, the International Day of Solidarity with the Palestinian People is observed.
- With the passage of Resolution 32/40 B in 1977, the General Assembly designated this day as the International Day of Solidarity with the Palestinian People.
- The Assembly adopted Resolution 181 (II) on the partition of Palestine on November 29, 1947.



Q1) 'Sajag,' which was recently in the news reports, is a/an:

- A) Sophisticated radar system
- B) Cutting-edge military drone
- C) Medical research facility
- D) Indigenous Offshore Patrol Vessel (OPV)

Q2) Which of the following states has emerged as the only state in the country that has completed the social audit of work done under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) in all village panchayats in the state?

- A) Maharashtra
- B) Gujarat
- C) Kerala
- D) Goa

Q3) Which of the following statements is not correct about Justice Fathima Beevi?

- A) Appointed as the first Muslim woman judge of the Supreme Court.
- B) Served as the governor of Kerala from 1997 to 2001
- C) She was the first woman law graduate to get the gold medal from the Bar Council
- D) She was part of the bench that heard a case pertaining to certain provisions of the Karnataka Scheduled Castes and Scheduled Tribes (Reservation of Appointments) Act in 1991.

Q4) India has signed a Memorandum of Understanding (MoU) on cooperation in the semiconductor ecosystem with:

- A) Australia
- B) United States
- C) African Union
- D) European Union

Q5) Amaterasu, who is currently in the news, is related to which of the following?

- A) A protein required for the conversion of fetal haemoglobin to adult hemoglobin during gene therapy.
- B) A reproductive process in which the posterior section of the body separates from the original body to mate.
- C) A particle with an exceptionally high energy of more than 240 extra-electron volts (EeV).
- D) A new type of fast-moving dinosaur that lived in the desert during the early Cretaceous period.

Q6) What is the primary technique used to create deepfake videos?

- A) Augmented reality
- B) Virtual reality

- C) Machine learning models and neural networks
- D) Traditional video editing software

Q7) Which of the following states organised the Kambala buffalo race during the winter months when farmers harvest their paddy crops?

- A) Tamil Nadu
- B) Karnataka
- C) Andhra Pradesh
- D) Kerala

Q8) Which of the following is related to Mythemna Separate, which has recently been in the news?

- A) A newly discovered species of dinosaur belonging to the Sauropodomorphs.
- B) An armyworm-like bug that feeds on leaves.
- C) A teen galaxy that exists between the Milky Way galaxy and the rest of the galaxies.
- D) An operation against fake billers by the Central Goods and Services Tax (CGST) Delhi.

Q9) Which of the following is relevant to 'Nidirana Noadihing,' as seen in the news?

- A) A project to provide Aids and Assistive Devices to Divyangjan and Senior Citizens.
- B) A freshly found supernova by the American Astronomical Society (AAS).
- C) The discovery of a new species of song frog in Arunachal Pradesh.
- D) A significant Indian Ocean climatic trend.

Q10) 'Qianlong shouhu', which was in the news recently, is a/an:

- A) Earth observation satellite
- B) New species of flowering plant
- C) Species of dinosaur
- D) Ancient martial art form

Q11) What is the major goal of the recently publicized SATHEE Portal?

- A) To encourage student entrepreneurship and innovation
- B) To provide free entrance exam help and coaching
- C) To give mental health and well-being counselling
- D) To provide scholarships and financial aid for higher study

Q12) It is indigenous to the Indo-Pacific region and has earned the moniker 'Sea Gold' due to its high market demand, notably in China. Aside from its monetary worth, it is treasured for its health benefits. Its collagen content promotes skin health by avoiding wrinkles, gaining it

the reputation of a natural anti-aging product. Furthermore, the Omega-3 in it is thought to improve newborns' IQ by stimulating brain cell proliferation.

Which of the following is best described by the prior to description?

- A) Abalone
- B) Sea Cucumber
- C) Sea Urchin
- D) Ghol Fish

Q13) E prime layer, recently seen in the news, is a:

- A) A new layer at the outermost part of Earth's core
- B) A transparent layer formed near ozone due to pollutants
- C) Thin coating prepared to control corrosion
- D) Coating around optical fiber cables to increase data efficiency

Q14) Which of the following is the best description of the recently reported 'Cosmic Vine'?

- A) A dark matter formation cluster in deep space.
- B) A gigantic structure encompassing many galaxies.
- C) A wormhole network connecting distant galaxies.
- D) A space-time anomaly in the vicinity of the Milky Way galaxy.

Q15) The World Energy Employment 2023 report, recently in the news, is published by:

- A) International Energy Association
- B) United Nations Environment Programme
- C) World Bank
- D) World Economic Forum

Q16) The Golden Gate Declaration reaffirms the member economies' commitment to building a resilient and sustainable future. It was most recently accepted after which of the following?

- A) 5th Edition of the India-US 2+2 Ministerial Dialogue
- B) Asia Pacific Economic Cooperation (APEC) Leaders' Summit 2023
- C) 10th ASEAN Defence Ministers' Meeting Plus (ADMM+)
- D) 18th East Asia Summit

Q17) Midhili, Hamoon and Mocha were in the news recently, They are

- A) Recent Earthquake epicenters in Nepal
- B) Cyclones in the Indian Ocean Region
- C) Mountain ranges in the Atlantic Ocean
- D) Volcanic region in Hawaii Island

Q18) The city of Honolulu was in the news due to a blaze of fire causing the burning of the rainforest. Honolulu is located in:

- A) Brazil
- B) Peru
- C) Mexico
- D) United States

Q19) Which of the following countries have agreed to co-produce an infantry combat vehicle as part of defence-industrial cooperation?

- A) India and Israel
- B) India and Russia
- C) India and USA
- D) India and France

Q20) The recently discovered 'Wasp-107b' is a:

- A) New Moon of planet Saturn
- B) Exoplanet in the Virgo constellation
- C) New massive star in Near Galaxy
- D) Asteroid found in the Kuiper Belt

Q21) Consider the following pairs

Active Volcanoes	-	Countries
1. Mount Etna	-	Italy
2. Fagradalsfjall	-	Iceland
3. Kilauea	-	Indonesia
4. Dukono	-	Hawaii

How many of the pairs given above are correct?

- A) Only one
- B) Only two
- C) All three
- D) None

Q22) Apophis, sometimes seen in the news is related to which of the following?

- A) A metric for measuring the global warming potential of a gas.
- B) A landmark deal by UNEP that aims to halt and reverse biodiversity loss by 2030.
- C) A Near-Earth object (NEO) that was identified as one of the most hazardous asteroids that could impact Earth.
- D) A monitoring initiative by the World Meteorological Organization (WMO) to monitor greenhouse gases.

Q23) Mount Etna, which has recently made the news, is located in:

- A) Asia
- B) Europe
- C) Africa
- D) South China Sea

Q24) The recently seen MQ-4C Triton is related to:

- A) A super made super computer

- B) An Exo-Planet
- C) Maritime intelligence and surveillance
- D) Agricultural crop monitoring

Q25) What is the 'Kangri' that has recently been in the news?

- A) Musical instrument
- B) Earthenware heater
- C) Breed of cattle
- D) Traditional dance

Q26) 'Cruzado and Espera' in the context of colonial India were:

- A) Coins
- B) Merchant guilds
- C) Taxation systems
- D) Military campaigns

Q27) 'The Ben Gurion Canal Project' was recently in the news. It proposed connecting which of the following pairings of bodies of water?

- A) Persian Gulf and Gulf of Oman
- B) Mediterranean Sea and Atlantic Ocean
- C) Gulf of Aqaba to the Mediterranean Sea
- D) English Channel and North Sea

Q28) Which Indian city was recently declared the 'City of Music' by UNESCO?

- A) Delhi
- B) Mumbai
- C) Varanasi
- D) Gwalior

Q29) The Attenborough's long-beaked echidna is native to:

- A) Western Ghats
- B) Amazon rainforests
- C) Himalayas
- D) Southeast Asia

Q30) Vaigai Dam is located in which one of the following States?

- A) Tamil Nadu
- B) Karnataka
- C) Bihar
- D) Himachal Pradesh

Q31) The Climate Services Report 2023 is published by the:

- A) United Nations Environment Programme (UNEP)
- B) International Union for Conservation of Nature (IUCN)
- C) World Wildlife Fund (WWF)
- D) World Meteorological Organization (WMO)

Q32) Which of the following strategies is frequently mentioned regarding PUSA Decomposers, Happy Seeder, and Palletisation?

- A) Rotation of crops
- B) Agriculture with pinpoint accuracy
- C) Stubble Burning Alternative
- D) None of the above

Q33) Klyuchevskoy volcano, which has recently made the news, is located in:

- A) Crimean Peninsula
- B) Iberian Peninsula
- C) Yucatan Peninsula
- D) Kamchatka Peninsula

Q34) What is the primary purpose of the Euclid mission of the European Space Agency (ESA)?

- A) Investigate the outer planets in our solar system
- B) Examine the geological aspects of the Moon
- C) Look into dark matter and dark energy
- D) Look for extraterrestrial evidence

Q35) Recently, the 'Kaleshwaram Lift Irrigation Project' has made headlines. Which river is this Irrigation Project located on:

- A) Narmada
- B) Tapi
- C) Mahanadi
- D) Godavari

Q36) Which of the following countries developed the Bulava Ballistic Missile, which was recently in the news?

- A) Iran
- B) USA
- C) North Korea
- D) Russia

Q37) Joint military exercise 'Surya Kiran' is conducted between India and which country?

- A) Sri Lanka
- B) Bhutan
- C) Bangladesh
- D) Nepal

Q38) Who has become the fourth Indian to be honored with Pakistan's highest civilian award?

- A) A R Rahman
- B) Dr. Syedna Mufaddal Saifuddin
- C) Mohammad Hamid Ansari
- D) None of these

Q39) In which country has the world's largest single-site solar power plant been inaugurated?

- A) United Arab Emirates

- B) Qatar
- C) India
- D) USA

Q40) Joint military exercise 'Austrahind-2023' is being organized between India and which country?

- A) Austria
- B) USA
- C) Ireland
- D) Australia

Q41) Who has become the first Indian to win the International Emmy Award?

- A) Arman Malik
- B) R Madhavan
- C) Vicky Kaushal
- D) Veer Das

Q42) Who has become the first woman to skydive from 21,500 feet near Mount Everest?

- A) Arunima Sinha
- B) Sheetal Mahajan
- C) Krishna Puri
- D) Aditi Ashok

Q43) Who has been appointed as the new Foreign Minister of Britain?

- A) Liz Truss
- B) David Cameron
- C) James Cleverly
- D) Zakir Ahmed

Q44) "One Station One Product" initiative of Indian Railways is now operational at how many stations?

- A) 1,000
- B) 1,037
- C) 1,041
- D) 1,150

Q45) Where will the 'India International Science Festival' 2023 be organised?

- A) Guwahati
- B) Jaipur
- C) Faridabad
- D) Lucknow

Q46) What is the primary goal of the recently publicized 'Project Kusha'?

- A) Increase agricultural productivity in India.
- B) Provide a long-range air defense system to the Indian Air Force (IAF).
- C) Investigate space and perform planetary study.
- D) Encourage environmental stewardship and sustainable practices.

Q47) The UNESCO Michel Batisse Award, as seen in the news from time to time, is associated with which of the following?

- A) To recognize operations that have a substantial influence on humanitarian aid delivered during wartime.
- B) For a politician who provides policy leadership for environmental conservation.
- C) UNESCO's highest civilian honor for a person in any field of human endeavor.
- D) For excellent success in the global administration of biosphere reserves.

Q48) What is the primary goal of the recently publicized 'Project Kusha'?

- A) Increase agricultural productivity in India.
- B) Provide a long-range air defense system to the Indian Air Force (IAF).
- C) Investigate space and perform planetary study.
- D) Encourage environmental stewardship and sustainable practices.

Q49) The Adaptation Gap Report, 2023 is a yearly publication by?

- A) UN Framework Convention on Climate Change (UNFCCC)
- B) NITI Aayog
- C) UN Environment Programme (UNEP)
- D) World Economic Forum (WEF)

Q50) 'Kawah Ijen,' recently seen in the news stories, is a:

- A) A rare element found in an asteroid
- B) A rare blue diamond
- C) A Japanese war technique
- D) Volcanic crater lake

ANSWERS

1. Answer: C

- The Indian Coast Guard Ship (ICGS) Sajag, an Offshore Patrol Vessel, recently landed in Muscat, Oman for a three-day visit as part of the ICG ships' overseas deployment to West Asia.
- The Indian Coast Guard OPV ICGS Sajag is situated on the West Coast of India in Porbandar, Gujarat.

2. Answer: C

- Kerala has emerged as the only state in the country that has completed the social audit of work done under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) in all village panchayats in the state.
- According to the State Social Audit Unit, which cited data from

the Union Rural Development Ministry, social audits for the first six months of the current fiscal year have been completed in all 941 village panchayats in Kerala.

3. Answer: B

- Justice Fathima Beevi, whose appointment as the first Muslim woman judge of the Supreme Court had inspired women to pursue the legal profession, died at a private hospital in Kerala's Kollam. She was 96.
- She is considered a role model for gender justice; she has been an icon of women's empowerment as she blazed a trail in the legal profession and otherwise.
- Justice Beevi, who had also served as the governor of Tamil Nadu from 1997 to 2001.
- She was the first woman judicial officer in the then-erstwhile Travancore state.

4. Answer: D

- India and the European Union signed a Memorandum of Understanding (MoU) on cooperation in the semiconductor ecosystem which will facilitate investments, joint ventures, and technology partnerships including manufacturing facilities.

5. Answer: C

- Amaterasu
- Researchers recently discovered an extraordinarily high-energy particle that appears to have come from a section of the universe where there is nothing, and it was dubbed "Amaterasu" after a Japanese deity.
- Amaterasu is a goddess. Amaterasu is a 240 extra-electron volt (EeV) particle that appears to have arrived from nothingness in space where nothing is known to exist.

6. Answer: C

- Deepfakes are a collection of manufactured photos and audio put together with machine-learning algorithms to propagate misinformation and substitute a genuine person's appearance, voice, or both with similar artificial likenesses or voices.
- The phrase "deepfake" combines the concept of deep learning with anything fictitious.
- It can create persons who do not exist and to impersonate real people speaking and doing things they did not say or do.

7. Answer: B

- Kambala is a buffalo race held in Coastal Karnataka districts Udupi and Dakshina Kannada during the winter months when farmers harvest their paddy crops.
- The race is held on two parallel tracks filled with mud and water.
- Each pair of buffaloes will also have a jockey, or 'Kambala runner' to control and command the animals on the track.
- The team that wins qualifies for higher rounds till a champion emerges.

8. Answer: B

- Mythimna separate
- The Continuous warm temperatures for prolonged periods may have led to the serious Mythimna separate infestation in Assam that damaged around 28,000 hectares of paddy crop in at least 15 districts.
- Mythimna separate is a pest that is known as the ear-head-cutting caterpillar, rice ear-cutting caterpillar or armyworm.

9. Answer: C

- Nidirana Noadihing is a recently discovered frog species in Arunachal Pradesh.
- This new species of frog is unique in that both the male and

female are vocal.

- It has a distinct call pattern that consists of two to three notes.
- It can grow to 6cm in length and has a faint cream-colored line on the mid-body with a "robust" body.

10. Answer: C

- Researchers in China have discovered a previously undiscovered dinosaur species known as 'Qianlong shouhu' together with dozens of its unhatched eggs.
- It is a member of the sauropodomorph dinosaur group, which includes sauropods and their progenitors.
- It lived about 200 and 193 million years ago in what is now China during the Early Jurassic epoch.

11. Answer: B

- The Ministry of Education (MoE) recently announced that it would write to all states to urge students to use the newly released exam preparation platform, SATHEE (Self-Assessment Test and Help for Entrance Exams).

12. Answer: D

Ghol Fish: Geographical Distribution:

- The ghol fish is primarily found in the Indo-Pacific region. Its habitat spans from the Persian Gulf to the expansive waters of the Pacific Ocean.
- Economic Significance:
- The ghol fish has a substantial market demand in China and other Asian countries.
- Ghol fish is also known as 'Sea Gold' for its high market value. Its meat is exported to European and Middle-Eastern countries, while the dried air bladder is in high demand, especially in China.

Benefits:

- Good for eye health and helps in maintaining eyesight.
- Prevent ageing and wrinkles, the collagen content in the ghol fish prevents wrinkles and also keeps the elasticity of the skin intact.
- Omega-3 content in ghol fish improves the Intelligence Quotient (IQ) of infants if fed on a regular basis - it stimulates the growth of brain cells.

13. Answer: A

- About E-Prime Layer
- A material exchange between the core and mantle was believed to be small.
- However, the experiments revealed that when water reaches the core-mantle boundary, it reacts with silicon in the core, forming silica.

14. Answer: B

- A team of astronomers has discovered a massive galactic structure known as the "Cosmic Vine."
- It is a gigantic "vine-like structure" that spans over 13 light-years and comprises 20 galaxies.
- It's also pretty old. It has a redshift of 3.44, indicating that it is in the early cosmos, according to the researchers.
- A redshift of 3.44 indicates that light from the Cosmic Vine travelled for between 11 and 12 billion years before arriving at JWST.
- To put things in perspective, current approaches place the universe's age at 13.7 billion years.

15. Answer: A

- The International Energy Association just published the World Energy Employment 2023 report.
- Global energy employment increased by 3.4 million from pre-pandemic levels to 67 million in 2022.

16. Answer: B

- Recently, the Asia-Pacific Economic Cooperation (APEC) Leaders' Summit 2023 took place in San Francisco, United States.
- The APEC 2023 summit's theme is "Creating a Resilient and Sustainable Future for All".
- APEC reaffirmed its commitment to free, fair, and open trade and investment, and to advancing inclusive and sustainable growth in the region.
- The summit concluded with the adoption of the Golden Gate Declaration.
- The declaration underscores the commitment to creating a resilient and sustainable future for all member economies.

17. Answer: B

- Cyclone Midhili, which crossed the Bangladesh coast weakened from a 'deep depression' into a 'depression', as per the India Meteorological Department (IMD).
- "Deep Depression (remnant of Cyclonic Storm "Midhili") over Tripura & adjoining Bangladesh weakened into a Depression and about 50 km east-southeast of Agartala and 160 km southwest of Silchar.
- Mizoram, Tripura, and Assam witnessed rainfall of varied intensity through Friday. Meanwhile, the first day of the three-day Meghalaya Cherry Blossom Festival was canceled due to bad weather conditions.

18. Answer: D

- A wildfire burning in a remote Hawaii rainforest is underscoring a new reality for the normally lush island state just a few months after a devastating blaze on a neighboring island levelled an entire town and killed at least 99 people.
- The cause of the blaze was roughly 20 miles (32 kilometers) north of Honolulu.
- The flames left gaping, dark bald spots amid a blanket of thick green where the fire did not burn.
- The burn area may seem relatively small compared to wildfires on the U.S. continent, which can raze hundreds of square miles.

19. Answer: C

- India and the US will co-produce an infantry combat vehicle for defense industrial cooperation.
- It was announced during the 2+2 meeting, that the US delegation comprised Secretary of State Antony Blinken while External Affairs Minister S Jaishankar and Defence Minister Rajnath Singh headed the Indian side.

20. Answer: B

- NASA's James Webb Space Telescope just identified 'Wasp-107b,' a Jupiter-sized exoplanet.
- It is a newly discovered exoplanet in the Virgo constellation 200 light-years distant.
- WASP-107b has a mass of 30.5 Earths and orbits its host star, which is slightly colder and less massive than our sun, in only six days.
- It is the same size as Jupiter but has the mass of Neptune, making it less dense than other gas giants.

21. Answer: B

- Mount Etna, Fagradalsfjall, Kilauea & Dukono
- Volcanoes are openings, or vents where lava, tephra (small rocks), and steam erupt onto the Earth's surface.
- Volcanoes can be on land and in the ocean and formed through the movement and collision of tectonic plates.
- There are 4 main types of volcanoes that include:
- Cinder cones.
- Composite or stratovolcanoes.

- Shield volcanoes.
- Lava domes.
- Some of the most active volcanoes are located in the Pacific Ring of Fire, which includes New Zealand, Southeast Asia, Japan and the western coast of the Americas.
- About 90% of all earthquakes worldwide strike within Pacific Ring of Fire.
- Italy's Mount Etna - Is one of the world's most active volcanoes, was causing public concern as it started erupting the year before.
- It is Europe's most active volcano and one of the largest in the world.
- Its recorded volcanic activity dates back to 1500 B.C.
- The current eruptions at Etna have led to flight cancellations at nearby Catania airport.
- Fagradalsfjall - Located in the Iceland.
- Kilauea - It is located in Hawaii.
- Dukono - Located in Indonesia started erupting in August 1933 and is still continuing.

22. Answer: C

- Apophis
- NASA probe to observe Apophis, an asteroid as wide as the Empire State Building Near-Earth encounter.
- Asteroid 99942 Apophis is a near-Earth object (NEO) estimated to be about 1,100 feet (340 meters) across.
- Apophis was identified in 2004 as one of the most hazardous asteroids that could impact Earth.

23. Answer: B

- Mount Etna is an active stratovolcano on Sicily's east coast.
- It is Europe's most active volcano and one of the world's largest.
- Its volcanic activity goes back to 1500 B.C.
- It has erupted more than 200 times since then.
- Etna has erupted in a variety of modes, including tremendous explosions and massive lava flows.

24. Answer: C

- Northrop Grumman Corporation has reported the successful maiden flight of Australia's multi-intelligence MQ-4C Triton uncrewed aircraft.
- The MQ-4C Triton is the only uncrewed, high-altitude, long-endurance aircraft designed for persistent maritime intelligence, surveillance, reconnaissance, and targeting. It was built for both the US Navy and the Royal Australian Air Force.

25. Answer: B

- The Kangri, also known as Kanger or Kangid, is pottery filled with blazing embers and housed in lovely handmade wicker baskets.
- Kashmiris store a portable and moving heater in their pheran, a long woollen cloak extending down to the knees used by people during the cold winters.
- A pot may hold roughly 250 grammes of charcoal, and a pheran fire can endure for hours.

26. Answer: A

- A farmer in North Goa's Nanoda Bamber village recently discovered 832 copper coins in a container buried in the earth that was produced in Goa during the 16th or 17th centuries when it was under Portuguese rule.
- From Goa, the Portuguese issued gold, copper, and silver coins.
- The gold coins were known as 'Cruzado' or 'Manoel' and came in the same size, value, and weight as the 'Pagodas' or 'Hons'.

27. Answer: C

Ben Gurion Canal Project:

- It has been speculated that one of the reasons behind Israel's desire to eliminate Hamas from the Gaza Strip and completely control the Palestinian enclave is to give itself the chance to explore a dramatic economic opportunity better.
- The Ben Gurion Canal Project is a proposed canal project through the state of Israel.
- It would connect the Gulf of Aqaba to the Mediterranean Sea.

28. Answer: D

- UNESCO's City of Music program is part of the wider Creative Cities Network.
- The Network launched in 2004 and has member cities in seven creative fields. The other fields are Crafts and Folk Art, Design, Film, Gastronomy, Literature, and Media Arts.

29. Answer: D

- The mysterious Attenborough's long-beaked echidna, thought to be extinct after being extinct for six decades, has been rediscovered in a remote corner of Indonesia.
- It is also known as the Cyclops long-beaked echidna or Sir David's long-beaked echidna.
- It is one of three Zaglossus species that live on the island of New Guinea.
- It was named after naturalist Sir David Attenborough.
- It resides in the Cyclops Mountains, between the cities of Sentani and Jayapura in Indonesia's Papua region.
- It is the smallest species of echidna.

30. Answer: A

- It spans the Vaigai River at Andipatti in Tamil Nadu's Theni district. Option A is correct.
- It opened in 1959 and is known as the region's lifeblood.
- It stands 111 feet tall and can hold 71 feet of water.
- Its primary purpose was to deliver water for irrigation in the Madurai and Dindigul districts, as well as drinking water for Madurai and Andipatti.

31. Answer: D

- The World Meteorological Organisation (WMO) just published the State of Climate Services Report 2023.
- Its origins can be traced back to the International Meteorological Organisation (IMO), which was established in 1873.
- It was established in 1950.
- It is the United Nations' specialised organization for meteorology (weather and climate), operational hydrology, and related geophysical sciences.
- It currently includes 187 countries as members.

32. Answer: C

Alternatives to Stubble Burning:

- PUSA Decomposers:
- The decomposers are in the form of capsules made by extracting fungi strains that help the paddy straw decompose much faster.
- Happy Seeder:
- It is a tractor-mounted device offering an eco-friendly alternative to stubble burning.
- It works by cutting and lifting rice straw, simultaneously sowing wheat into the exposed soil, and depositing the straw over the sown area as protective mulch.
- Palletisation:
- Paddy straw, when dried and transformed into pellets, becomes a viable alternative fuel source. When mixed with coal, these pellets can be utilized in thermal power plants and

industries, potentially saving coal usage and lowering carbon emissions.

33. Answer: D

- Klyuchevskoy volcano erupted recently in Russia's Kamchatka Peninsula.
- It is one of Kamchatka's most well-known volcanoes.
- With a height of 4,750 metres, it is one of the world's tallest active volcanoes.
- A truncated cone with a centre crater makes up the volcano.
- It is a stratovolcano.
- Since 1700, it has erupted more than 50 times.

34. Answer: C

- The first photographs from the European Space Agency's (ESA) Euclid mission will be released soon.
- The Euclid mission is part of the European Space Agency's Cosmic Vision initiative, which intends to investigate the origin and components of the universe, as well as the fundamental principles that govern it.
- Its primary purpose is to look into the "dark side" of the universe, specifically dark matter and dark energy.

35. Answer: D

- The National Dam Safety Authority (NDSA) examined the Medigadda (Laxmi) Barrage of the Kaleshwaram irrigation project in Telangana.
- The Kaleshwaram Lift Irrigation Project is a multi-purpose irrigation project on the Godavari River in Telangana.
- Currently the world's largest multi-stage lift irrigation project, its farthest upstream influence is at the confluence of the Pranhita and Godavari rivers.

36. Answer: D

- It is a new Intercontinental Ballistic Missile (ICBM) launched from a Russian submarine.
- The development of this missile began in 1998.
- The Bulava missile's first powered flight test took place in September 2005.
- In December, it conducted its first submerged test launch.
- It was intended for use on Russia's Borey-class ballistic missile submarines (SSBNs).

37. Answer: D

- The 17th joint military exercise Surya Kiran between the armies of India and Nepal is being organized in Pithoragarh, Uttarakhand. A contingent of Nepal Army comprising 334 military personnel has reached India to participate in this. This exercise will run from 24 November to 07 December 2023. It is an annual military exercise and is organized by rotation in both the countries.

38. Answer: B

- Dr., head of the Mumbai-based Dawoodi Bohra sect of Islam, Syedna Mufaddal Saifuddin will be honored with Pakistan's highest civilian award 'Nishan-e-Pakistan. He will become the fourth Indian to be honored with Pakistan's highest civilian award. Morarji Desai was the first Indian to be honored with Pakistan's highest civilian award.

39. Answer: A

- The United Arab Emirates recently inaugurated the world's largest single-site solar power plant. This is being seen as a big step before the upcoming United Nations Climate Change Conference (COP28). The 2-GW Al Dhafra Solar Photovoltaic Independent Power Project (IPP) is located 35 kilometers from Abu Dhabi city and will generate enough electricity to power

approximately 200,000 homes.

40. Answer: D

- Joint military exercise 'Austrahind-2023' is being conducted between the armed forces of India and Australia. The second edition of 'Austrahind-2023' is being organized in Perth, Australia from 22 November to 06 December 2023. The joint military exercise 'Austrahind' was started in the year 2022. Its first edition was held in Mahajan, Rajasthan.

41. Answer: D

- Actor-comic Vir Das has won the International Emmy Award in the best comedy category for his Netflix stand-up special 'Vir Das: Landing'. He has become the first Indian artist to win this award. The 51st International Emmy Awards were held in New York City, America. This award show was organized by the International Academy of Television Arts and Sciences (IATAS).

42. Answer: B

- Indian skydiver Sheetal Mahajan has become the first woman to skydive by jumping from a helicopter from a height of 21,500 feet in front of the world's highest peak Mount Everest. After which she landed at 'Kalapathar' peak at a height of 17,444 feet. He is a renowned Indian skydiver who holds several skydiving records and was also awarded the fourth highest civilian award, the Padma Shri, in 2001.

43. Answer: B

- Former UK Prime Minister David Cameron has been appointed as the new Foreign Minister of Britain. PM Rishi Sunak has chosen David Cameron as the new Foreign Minister in place of James Cleverly. David Cameron was the Prime Minister of Britain between 2010 and 2016.

44. Answer: B

- Indian Railways' "One Station One Product" initiative is now operational at 1,037 stations across the country. This initiative is specifically designed to sell indigenous products to the local people. This scheme has been designed by the National Institute of Design, Ahmedabad. The pilot project of the scheme was started on 25 March 2022.

45. Answer: C

- The 9th edition of the India International Science Festival (IISF) 2023 will be held in Faridabad, Haryana from January 17 to 20, 2024. The theme this time is "Science and Technology Public Outreach in the Age of Amrit". IISF is an initiative of the

Ministry of Science and Technology and the Ministry of Earth Sciences in collaboration with Vignyan Bharati.

46. Answer: B

- In a crucial step towards improving its air defense capabilities, India is starting on an enormous undertaking known as 'undertaking Kusha.'
- The Indian Air Force (IAF) will get a long-range air defense system as part of 'Project Kusha,' with deployment scheduled for 2028-29.

47. Answer: D

- Michel Batisse Award from UNESCO
- The director of the Gulf of Mannar Biosphere Reserve was been chosen for the UNESCO Michel Batisse Award for 2023.
- The UNESCO Michel Batisse Award is a 12,000 USD award presented every two years during the Man and the Biosphere Programme (MAB) Council in remembrance of Dr. Michel Batisse.
- It is given for remarkable achievements in the management of biosphere reserves in accordance with the Seville Strategy principles.

48. Answer: B

- In a crucial step towards improving its air defense capabilities, India is starting on an enormous undertaking known as 'undertaking Kusha.'
- The Indian Air Force (IAF) will get a long-range air defense system as part of 'Project Kusha,' with deployment scheduled for 2028-29.

49. Answer: C

- Adaptation Gap Report 2023
- The United Nations Environment Programme (UNEP) just published the Adaptation Gap Report 2023.
- The paper identifies seven strategies to increase financing, including domestic spending as well as international and private sector support.

50. Answer: D

- The Copernicus Sentinel-2 mission, which provides optical photographs of the Earth's surface, just captured amazing images of Kawah Ijen Crater Lake.
- Kawah Ijen is a volcanic crater lake on the Indonesian island of East Java.
- It is part of the broader Ijen volcano complex, which also comprises several smaller craters.
- The magnificent turquoise-colored crater lake is the major draw of Kawah Ijen.